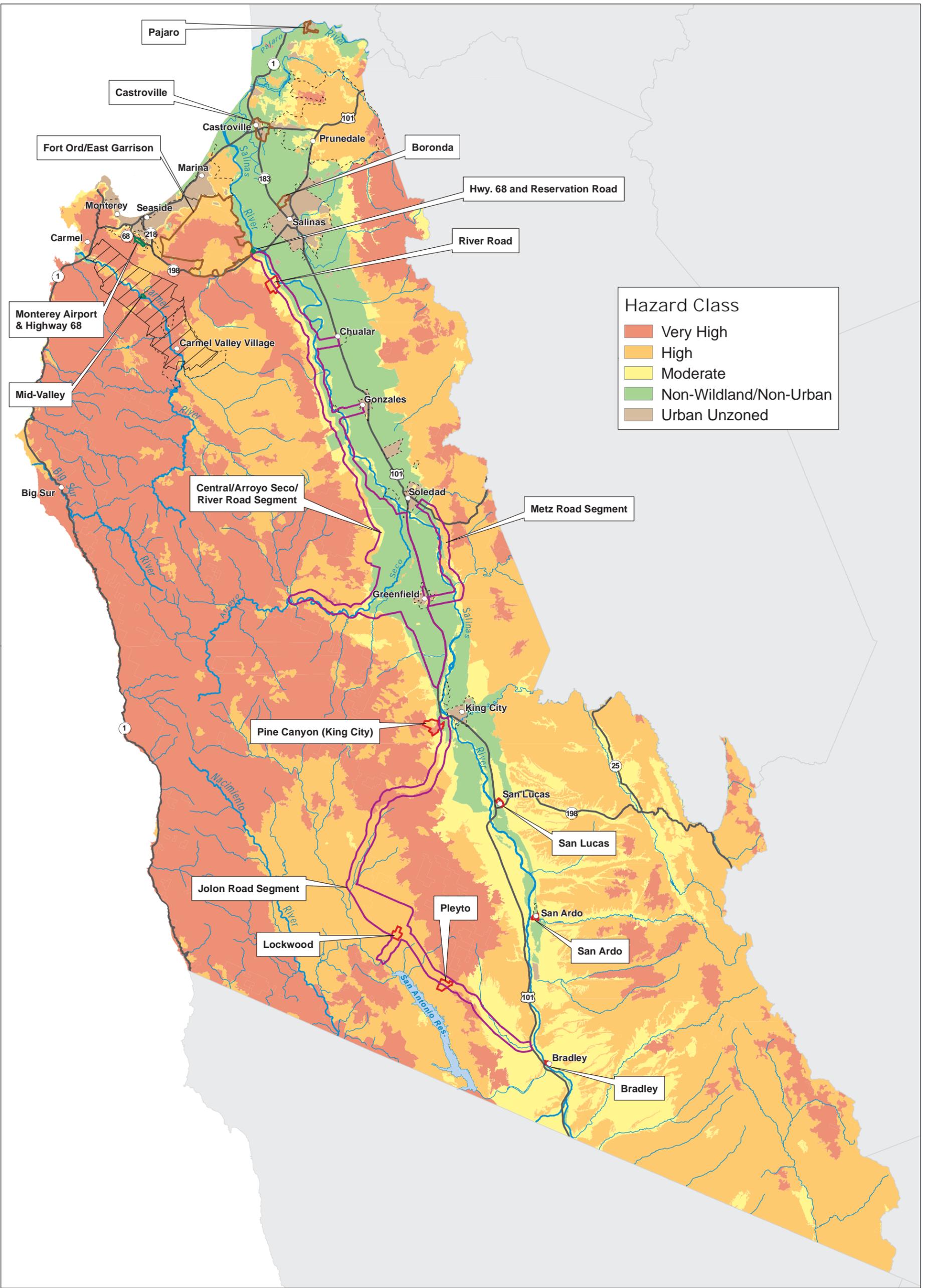


Attachment G

Draft Environmental Impact Report

Volume 2, Section 2

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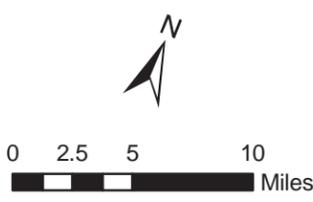


Hazard Class

- Very High
- High
- Moderate
- Non-Wildland/Non-Urban
- Urban Unzoned

 AHO Areas	 Carmel Valley Master Plan
 Community Planning Areas	 City/Town Limits (2000)
 Rural Centers	 Highways
 Wine Corridor	 Streams

**Exhibit 4.13.1
Wildland Fire
Hazards**



Sources: California Department of Forestry, FRAP, California Spatial Information Library.

S:\GIS\PROJECTS\COUNTY_OF_MONTEREY\00982_07\MAPDOC\FIG4_13_1_FIREHAZARD.MXD PG. (07-28-08)

4.14 Aesthetics, Light, and Glare

4.14.1 Abstract

Monterey County's visual character and resources are inextricably linked to the natural topography, vegetation, and cultural history of the region. Coastal views, agricultural fields, natural ridgelines, and oak woodlands are all prominent elements of the county's visual character. The county contains 95 miles of officially designated State Scenic Highways and 43 miles of highways eligible for the scenic highway designation. Urban development and vehicles account for most of the substantial sources of light and glare in the county.

Development and land use activities contemplated by the 2007 General Plan in designated growth areas (Community Areas and Rural Centers) as well as on lots of record would result in the following significant impacts on aesthetics, light, and glare:

- **Visual Character:** Future development anticipated by the 2007 General Plan would irreversibly alter the visual character of portions of the county. No mitigation is available to reduce this impact to a level of less than significant, and therefore, this impact is significant and unavoidable.
- **Light and Glare:** Future development anticipated by the 2007 General Plan would introduce new sources of light and glare that could diminish the quality of daytime and nighttime views to portions of the county. No mitigation is available to reduce this impact to a level of less than significant, and therefore, this impact is significant and unavoidable.

All other impacts would be less than significant and would not require mitigation.

4.14.2 Introduction

This section identifies and evaluates issues related to visual resources in the General Plan action area.

The "Environmental Setting" discussion below describes the current setting of the action area. The purpose of this information is to establish the existing environmental context against which the reader can then understand the environmental changes caused by the action. The environmental setting information is intended to be directly or indirectly relevant to the subsequent discussion of impacts. For example, the setting identifies groups of people who have views of scenic resources because the action could change their views and experiences.

The environmental changes associated with the action are discussed under “Impact Analysis.” This section identifies impacts, describes how they would occur, and prescribes mitigation measures to reduce significant impacts, if necessary.

4.14.3 Concepts and Terminology

Aesthetics, as addressed in CEQA, refers to visual considerations. Aesthetics (or visual resource) analysis is a process to logically assess visible change and anticipated viewer response to that change. A common methodology for conducting visual analysis has been developed by the Federal Highway Administration (FHWA), U.S. Forest Service, and the U.S. Soil Conservation Service. Some of these principles have been applied to this assessment. As an initial step, such analysis begins with the identification of existing conditions with regard to visual resources and entails the following steps:

- Objective identification of visual features of the landscape;
- Assessment of the character and quality of those resources relative to overall regional visual character; and
- Assessment of the potential significance of features in the landscape to the people who view them and their sensitivity or response to the proposed changes to those features.

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area (Federal Highway Administration 1988). Scenic quality can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area (U.S. Bureau of Land Management 1980). Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. Viewer sensitivity relates to the extent of the public’s concern for a particular viewshed. These terms and criteria are described in detail below.

4.14.3.1 Viewshed

Viewshed is an area of the landscape that is visible from a particular location (e.g., an overlook) or series of points (e.g., a road or trail) (Federal Highway Administration 1988). To identify the importance of views of a resource, a viewshed may be broken into distance zones of foreground, middleground, and background. Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance to the viewer. Although distance zones in viewsheds may vary between different geographic regions or types of terrain, a commonly used set of criteria identifies the foreground zone as 0.25 to 0.5 miles from the viewer; the middleground zone as 3 to 5 miles from the viewer; and the background zone extend infinitely.

In the *foreground zone*, the observer is a direct participant, and the views include objects at close range that may tend to dominate the view. This zone is an important linkage because it sets a tone for the quality of a visual resource. Foreground views are valued at a maximum level.

In the *middleground zone*, the observer focuses on the center of the viewshed. Views tend to include objects that are the center of attention if they are sufficiently large or visually different from adjacent visual features. Details will not be as sharp as the foreground view, but land features will still be distinguishable.

In the *background zone*, the observer can see less detail and distinction in landform and surface features. The emphasis of background views is an outline or edge. Silhouettes and ridges of one landmass against another are the conspicuous visual parts of the background, with skyline serving as the strongest line. Objects in the background eventually fade to obscurity and increasing distance.

4.14.3.2 Visual Character

Natural and artificial landscape features contribute to the *visual character* of an area or view. Visual character is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Urban features include those associated with landscape settlements and development, including roads, utilities, structures, earthworks, and the results of other human activities. The perception of visual character can vary significantly seasonally, even hourly, as weather, light, shadow, and elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features (U.S. Forest Service 1995; Federal Highway Administration 1988). The appearance of the landscape is described in terms of the dominance of each of these components.

4.14.3.3 Visual Quality

Visual quality is evaluated using the well-established approach to visual analysis adopted by Federal Highway Administration, employing the concepts of vividness, intactness, and unity (Federal Highway Administration 1988; Jones et al. 1975), which are described below.

- Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, and in natural settings.

- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity, as modified by its visual sensitivity. High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

4.14.3.4 Visual Exposure and Sensitivity

Viewer sensitivity is based on the visibility of resources in the landscape, the proximity of viewers to the visual resource, the relative elevation of viewers to the visual resource, and the types and expectations of individuals and viewer groups. The criteria for identifying the importance of views are related in part to the position of the viewer relative to the resource.

Visual sensitivity also depends on the number and type of viewers and the frequency and duration of views. Generally, visual sensitivity increases with an increase in *total number of viewers*, the *frequency of viewing* (e.g., daily or seasonally), and the *duration of views* (i.e., how long a scene is viewed). Also, visual sensitivity is higher for views seen by people who are driving for pleasure; people engaging in recreational activities such as hiking, biking, or camping; and homeowners. Sensitivity tends to be lower for views seen by people driving to and from work or as a part of their work (U.S. Forest Service 1995; Federal Highway Administration 1988; U.S. Soil Conservation Service 1978). Commuters and nonrecreational travelers have generally fleeting views and tend to focus on commute traffic, not on surrounding scenery; therefore, they are generally considered to have low visual sensitivity. Residential viewers typically have extended viewing periods and are concerned about changes in the views from their homes; therefore, they are generally considered to have high visual sensitivity. Views from recreation trails and areas, scenic highways, and scenic overlooks are generally assessed as having high visual sensitivity.

Judgments of visual quality and viewer response must be made based in a regional frame of reference (U.S. Soil Conservation Service 1978). The same landform or visual resource appearing in different geographic areas could have a different degree of visual quality and sensitivity in each setting. For example, a small hill may be a significant visual element on a flat landscape but have very little significance in mountainous terrain.

The discussion of visual character enables the analysis to compare and contrast features within the proposed project site with those of the surrounding area. The discussion of visual quality analyzes the significance of the proposed project site as a visual resource within the setting.

4.14.4 Environmental Setting

4.14.4.1 Action Area Character

Monterey County's visual character and aesthetic resources are inextricably linked to its geography and the natural topography, vegetation, and cultural history of the region. Exhibit 4.14.1 depicts areas of visual sensitivity in Monterey County. Additionally, Exhibits 4.14.2 through 4.14.6 depict areas of visual sensitivity, critical viewsheds, and existing and proposed scenic highways and routes by Planning Area. Located mid-state along the Pacific Ocean, the county is part of the Coastal Ranges. The Salinas Valley separates the Gabilan Range and Cholame Hills, located along the eastern border of the county, from the San Lucia Range that mostly comprises the western half of the county. The planning area can be generally broken down into the following landscape components:

- Valleys,
- Ridgelines,
- Vegetation,
- Watercourses,
- Coastal Views, and
- Travel Routes.

Valleys

The Salinas, Carmel, and Jolon Valleys support the majority of the county's agricultural resources, lending to the familiar rural visual character within these areas. However, these large-scale farming operations have had a significant effect on the historical character, visually altering nearly one-third of the county from natural riparian floodplain forest and oak grasslands (City of Salinas 2003) to more highly manipulated landscapes brought on by more intensive forms of agriculture (irrigated row crops, irrigated pasture, orchards, vineyards) to more passive forms (grazing, apiary). The visual resource brought to the county by agricultural land uses is the character that the agricultural land gives the county. This resource is not dependent on the specific type of crop that is being grown.

Development in the valleys has grown from the agricultural industry and is located along major travel corridors such as Highway 101. Cities and towns within the valleys include Castroville, Salinas (the largest city in the County), Gonzales, Soledad, Greenfield, King City, and Carmel Valley. Foreground, middleground, and background views of agriculture fields/pastures and the surrounding ranges and hills comprise the viewshed. Based upon the viewer's location within the landscape, views may be more expansive when unobstructed or more limited by things such as development, row crops, orchards, etc. Views of the ocean are not present from the valleys.

Ridgelines

Ridgelines are one of the most prominent features of the landscape, and they offer the greatest opportunity for panoramic vistas, sometimes with a 360-degree viewshed that extend far into the background. Views from ridgelines vary based

on available access to the ridgelines and public access is often limited to that provided by travel on public roadways and parks such as, Los Padres National Forest; Garapatta, Andrew Molera, Pfeiffer Big Sur, Julia Pfeiffer Burns, and Lime Kiln State Parks; and Jacks Peak County Park. Views of ridgelines vary based on viewers' position in the landscape and can range from full middleground and background views of multiple ridges to views that are limited to the middleground by ridgelines that are of a higher elevation and vegetation. Development on these prominently visible locations, even small structures, can have a significant impact as a structure's full mass may easily be visible from numerous points in the surrounding terrain that have views towards the ridgelines.

Vegetation

The natural vegetation that occupies much of the county is an essential component of the visual landscape. The mosaic pattern of natural vegetation is a direct response to natural conditions of topography, drainage patterns, soil characteristics, slope, exposure, elevation, and aspect and developed or altered landscapes. Boundaries between natural and developed or manipulated landscapes are often very distinct, creating greatly differing visual experiences that can be located within close proximity to one another. The county, as a whole, has retained large portions of its natural vegetation within the ranges and hills, yet has seen almost complete alteration of natural vegetation to agriculture in the valleys.

Watercourses

Natural drainage patterns and watercourses are integral to the visual environment as they shape the landscape, add visual interest, and influence the types and abundance of vegetation in nearby areas. In the project area, the major applicable watercourses are Salinas River, Carmel River, Arroyo Seco River and Pajaro River. More detail of these watercourses can be found in Section 4.3, Water Resources. Some of the natural drainage patterns and watercourse systems in the project area have been subject to various degrees of manipulation to accommodate human influence upon the landscape. While some systems, or portions of systems, have been left to more natural states, others have been drastically altered. The greatest changes can be seen in urban areas where development too close to natural drainage courses often necessitates flood control measures to protect infrastructure. These measures tend to significantly alter the natural channel geomorphology, leading to enclosed channels in an underground concrete box structure or routing them through an open concrete-lined channel.

In other instances, riparian vegetation is thinned or removed to allow for higher conveyance and capacity for specific flood intervals. For public safety reasons, chain-link fences are sometimes installed to enclose the channel and limit public access. The resulting combination of these modifications can greatly impact the visual character of the watercourse and adversely affect local visual resources.

Coastal Views

Seascapes and coastal views are deemed one of the most valued visual resources, for which the county is highly noted for, generating in-state, out-of-state, and international tourism. The extensive length of the Monterey County coastline provides an extraordinary range of coastal views. The dramatic cliffs and headlands of the Big Sur Coast, back-dropped by the Coastal Range, are a striking visual contrast to the coastal dunes and marshes that form the coastline around Monterey Bay.

The Del Monte Forest located in the Greater Monterey Peninsula Planning Area is section of unincorporated county land located directly on the coast. The site of the Seventeen Mile Drive, this area is a center that generates a great deal of tourism dollars, not only from its coastal locations but also from its unique natural landscape. This area offers a place where one can experience extended views of the coast line that surrounds it, while also offering a unique visual experience of the land itself.

Travel Routes

Travel routes provide the broadest range and greatest visual access to the various aesthetic resources within the county. Roadways and highways often wind through the region at changing elevations and serve to take travelers on a visual journey through the landscape, for which Monterey County is noted. There are many roadways that provide visual access; however, there are a number of scenic roadways and highways that exemplify such access.

Scenic Roadways and Highways

Panoramic views, ridgelines, vegetation, and coastline are common elements that influence the aesthetic quality of scenic roadways and highways in the county. These roadways are listed in Table 4.14-1.

Highway 1, between the Carmel River and the San Luis Obispo County line, has the esteem of being designated as the first Scenic Highway in California in June 1965 (California Department of Transportation 2008a). Other roads are identified in the Area Plans as scenic roads eligible for County Scenic Route designation. Official designation of these roads has not been implemented. The process of County Scenic Route designations follows similar procedures as State Scenic Highway designations. In addition to the existing County Designated Scenic Routes, there are a number of proposed routes included in the Area Plans. To be considered eligible for scenic status, the roadway must qualify under the

Federal Highway Administration’s National Scenic Byways Program or the California State Scenic Highway System. For details of the regulatory requirements for scenic designation, see the Federal and State Regulations discussion below. Corridor Mangement Plans, called Scenic Corridor Protection Programs under the state system, must be developed and implemented for designated roadways to provide for the conservation and enhancement of the road’s scenic values (Federal Highway Administration 1995; California Department of Transportation 2007). These plans and programs must be acknowledged and followed by local government when planning projects in the area.

Table 4.14-1. Monterey County Scenic Highways and Roadways

Highway/ Roadway	Segment	Post-miles	Length (miles)	Designation Status*
1	Big Sur Coast Highway: Carmel-by-the-Sea to Monterey/San Luis Obispo County line	0.0–72.3	72.3	All American Road
1	Highway 68 to Monterey/San Luis Obispo County line	72.3–78.1	78.1	OD
68	Highway 1 in City of Monterey to Salinas River	4.3–17.8	13.5	OD
156	1.0 mile east of Castroville to U.S. 101 near Prunedale	1.0–5.3	4.3	OD
San Benancio Road	Highway 68 to Corral de Tierra Road	–	–	County Scenic Highway
Corral de Tierra Road	Highway 68 to San Benancio Road	–	–	County Scenic Highway
County Highway G20	Laureles Grade Road from Highway 68 south to County Highway G16 (West Carmel Valley Road) in Carmel Valley	–	–	County Scenic Highway
Interlake Road	County Highway G14/18 (Jolon Road) to Monterey/San Luis Obispo County line	–	–	County Scenic Highway
Robinson Canyon Road	Carmel Valley Road to end	–	–	County Scenic Highway
25	Highway 198 to Monterey/San Benito County line	0.0– approx. 11.0	11.0	E
68	City of Monterey to U.S. 101 near Salinas	0.0–4.3 and 17.8–22.0	8.5	E
156	Highway 1 to 1.0 mile east of Castroville	0.0–0.7	0.7	E
198	U.S. 101 to Monterey/Fresno County line	–	22.7	E

Highway/ Roadway	Segment	Post-miles	Length (miles)	Designation Status*
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OD = Caltrans Officially Designated Scenic Highway.
 – = Information unavailable from references used.
 E = Caltrans Eligible Scenic Highway.

Sources: California Department of Transportation 2008b, 2008c; America’s Byways 2008a, 2008b; Monterey County General Plan 2007 Area Plans.

4.14.4.2 Designated Sensitive Visual Areas

Each of the eight Planning Areas in the General Plan contains designated visual resource areas identified through its Area Plan. There is a mix of Sensitive Areas, Highly Sensitive Areas, Critical Viewsheds, View Sheds, View Points and View Areas. Exhibit 4.14.1 is a digitized composite of visual resource designations from each of the Area Plans, Local Coastal Programs, and City General Plans.

Community Areas and Rural Centers

Five Community Areas are identified as areas where, with a more detailed plan for that area (Community Plan), additional growth could occur. These areas include Pajaro, Boronda, Castroville, Fort Ord Master Plan, and Chualar. As visible on Exhibit 4.14.1, sensitive visual areas occur in the Pajaro and Fort Ord areas, and highly sensitive visual areas occur in the Fort Ord area. In addition to Community Areas, a second tier called Rural Centers identifies seven smaller population areas. If provided with adequate facilities and infrastructure, these areas, could accommodate growth if Community Areas could not fulfill the need and would retain their village character. These areas include River Road, Lockwood, Pleyto, Bradley, San Ardo, San Lucas, and Pine Canyon (King City). As visible on Exhibit 4.14.1, highly sensitive visual areas occur in the River Road center.

4.14.4.3 Light and Glare

Existing sources of light and glare in Monterey County are primarily associated with cities and developed unincorporated areas. Sources of light in these areas include exterior and interior building lighting, illuminated signs, streetlights, and signals. Sources of glare in these areas include windows and reflective building materials such as metal roofs. Mobile sources of light and glare originate from vehicles, airplanes, trains, and farm equipment. When light is not sufficiently screened and spills over into areas outside of a particular development area the effect is called “light trespassing.”

While most features contributing to glare are man-made, a large source of glare can be natural in the form of water surfaces, such as the Pacific Ocean, and land cover. The Pacific Ocean serves as a large source of glare, which can vary in intensity based on weather/atmospheric conditions (e.g., a sunny versus a foggy day). The ocean can also cast glare during the nighttime in areas that are highly developed by reflecting the light coming from those areas. In both cases, glare from the ocean is not usually perceived as a negative aesthetic quality, and can often be associated with high-quality and memorable visual experiences.

Land cover can include exposed soil, seedlings, mature row crops, orchards, pasture, forest, and so on. The built environment is not included in “land cover.” These different cover types can produce different amounts of glare based on the amount of surface area and its roughness, reflectiveness, and coloring. For example, a glossier leaved, low-growing row crop that forms more of a continuous surface is likely to create more glare than a vineyard where the vines are duller, taller, and planted in wider spaced rows that allow for areas of shade and light absorption. Similarly, dry, bare soil or mown grain fields can be much lighter, hence more reflective, than wet, bare soil or a green grain field. Areas that tend to produce the least amount of glare are areas of natural vegetation. As with the ocean, glare is influenced by weather and atmospheric conditions.

Lastly, light and glare can be affected by the absence of vegetation, because vegetation acts to screen and filter light and soften the intensity of glare. For example, in areas of intense development that lack mature landscaping or where land has been denuded of natural vegetation for agriculture, there will be a notable increase in light and glare when compared to areas of development with mature landscaping or natural, vegetated areas.

4.14.5 Regulatory Framework

4.14.5.1 Federal and State

National Scenic Byways Program

Under the National Scenic Byways Program, implemented by the Federal Highway Administration, roadways are designated as National Scenic Byways or All-American Roads based upon their scenic, historic, recreational, cultural, archeological, and/or natural intrinsic qualities. A road must significantly meet criteria for at least one of the above six intrinsic qualities to be designated a National Scenic Byway. For the All-American Roads designation, criteria must be met for multiple intrinsic qualities. Additionally, there must be a local commitment “provided by communities along the scenic byway that they will undertake actions, such as zoning and other protective measures, to preserve the scenic, historic, recreational, cultural, archeological, and natural integrity of the scenic byway and the adjacent area as identified in the corridor management plan.” In addition, new signs cannot be erected if they are not in conformance with 23 U.S.C. 131(c) along any highway that has been designated as a scenic

byway under the State's scenic byway program and includes highways that are designated scenic byways under the National Scenic Byways Program and All-American Roads Program, whether or not they are designated as State scenic byways. (Federal Highway Administration 1995.)

If these roadways no longer possess the intrinsic qualities that supported their designation, local commitment has failed to retain these intrinsic qualities, or if the roadways are not maintained in accordance with their corridor management plan, they can be de-designated.

While governed for their scenic qualities by the Federal Highway Administration as described above, these designated byways fall under jurisdiction of the local county, state (Caltrans), or U.S. Forest Service (if on Forest Service lands) and are, therefore, protected largely under those jurisdictions (Steele pers. comm.).

California Scenic Highway Program

In addition to the National Scenic Byways Program, scenic roadways are designated by the State of California under the Scenic Highway Program detailed in Street and Highway Code Section 260.

A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. (California Department of Transportation 2007.)

To become an officially designated scenic highway, the local jurisdiction must adopt a scenic corridor protection program for the eligible state scenic highway, applies to the California Department of Transportation for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. The scenic corridor protection program is made up of adopted ordinances to preserve the scenic quality of the corridor or document such regulations that already exists in various portions of local codes. State and county roads can be designated as scenic highways (California Department of Transportation 2007).

Table 4.14-1 lists roadways in the project area that are designated in federal or state plans as a scenic highway or route worthy of protection for maintaining and enhancing scenic viewsheds.

State Historic Preservation Programs

The State Office of Historic Preservation oversees four historic preservation programs:

- National Register of Historic Places
- California Register of Historic Places

- California Historical Landmarks
- California Points of Historic Interest

Each program has its own specific eligibility criteria, although historic resources often overlap on multiple lists.

Resources listed in the National Register, California Historical Landmarks #770 and above are automatically listed in the California Register. Points of Historic Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register.

4.14.5.2 Local

Monterey County General Plan

Tree Protection

The county has an ordinance for the protection of trees within its jurisdiction. Tree protection within the county varies in accordance with different areas and master plans, which provide specific policies relative to the protection of specific types of trees. Each of the following tree removal scenarios require a tree removal permit (16.60.030):

- North County Area Plan or Toro Area Plan areas: oak or madrone tree six inches or more in diameter two feet above ground level.
- Carmel Valley Master Plan area: oak, madrone or redwood tree six inches or more in diameter two feet above ground level.
- Cachagua Area Plan area: native tree six inches or more in diameter two feet above ground level.

“Native trees,” for the purpose of this Section, are:

- Santa Lucia Fir;
 - Black Cottonwood;
 - Fremont Cottonwood;
 - Box Elder;
 - Willows;
 - California Laurel;
 - Sycamores;
 - Oaks; and
 - Madrones.
- Any oak tree in any other area of the County of Monterey designated in the applicable area plan as Resource Conservation, Residential, Commercial or Industrial (except Industrial, Mineral Extraction).

- Any landmark oak tree removed in any area except as may be approved by the Director of Planning and Building Inspection. Landmark oak trees are those trees which are twenty-four (24) inches or more in diameter when measured two feet above the ground, or trees which are visually significant, historically significant, or exemplary of their species.
- Any oak trees in any other area of the County of Monterey designated in the applicable area plan as Agricultural or Industrial, Mineral Extraction, except for a small number of uses specified in Section 16.60.050.
- Any oak trees removed in any area of the County of Monterey for commercial harvesting purposes.

As a condition of permit approval, any applicant seeking to remove a protected tree from a property within County jurisdiction is required to relocate or replace each removed protected tree at a one-to-one ratio. Removal of more than three protected trees from a single lot over a one-year period requires submission of a Forest Management Plan and approval of a Use Permit by the Monterey County Planning Commission. The Forest Management Plan is to be prepared at the applicant's expense by a qualified professional forester (16.60.040).

Several tree removal activities are exempted from the provisions of the County tree ordinance. These include certain commercial timber operations; any governmental or utilities-related tree removal that occurs within public rights-of-way; and any construction-related tree removal that is included in an approved subdivision, Use Permit, or similar discretionary permit (16.60.040).

Monterey County Grading Ordinance

The County grading ordinance generally regulates grading involving more than 100 cubic yards of excavation and filling. Minor fills and excavations (cuts) of less than 100 yards that are not intended to provide foundation for structures, or that are very shallow and nearly flat, are typically exempt from the ordinance, as are shallow footings for small structures. Submittal requirements for a County grading permit include site plans, existing and proposed contour changes, an estimate of the volume of earth to be moved, and geotechnical (soils) reports. Projects involving grading activities over 5,000 cubic yards must include detailed plans signed by a State-licensed civil engineer.

Grading is not allowed to obstruct storm drainage or cause siltation of a waterway. All grading requires that temporary and permanent erosion control measures be implemented. Grading within 50 feet of a watercourse, or within 200 feet of a river, is regulated in the Zoning Code Floodplain regulations. Work in the Salinas River and Arroyo Seco River channels is exempted if it is covered by a U.S. Army Corps of Engineers 5-year regional 404 permit, approved by the California Department of Fish and Game, and approved by the Monterey County Water Resources Agency.

In addition to grading ordinance provisions, the Zoning Code (Chapter 1.64.230) details specific regulations for development on slopes in excess of 30%, including conformance with the grading ordinance and erosion control requirements. Specific geotechnical or engineering geologic investigation requirements include the following:

- 1) Presentation of data regarding the nature, distribution, and strength of existing soils.
- 2) Recommended grading procedures and design criteria for corrective measures when necessary, including buttress fills.
- 3) Examination and recommendations to maintain slope stability.
- 4) Description of the site geology of the site and the effect of geologic conditions on the proposed development.
- 5) Incorporation of approved report recommendations in the grading plans and specifications. (Ord. 2535 110, 1979.).
- 6) Completion of a liquefaction study, where applicable and the potential for liquefaction, should there be:
 - a) Shallow ground water at 50 feet (15.24 meters) or less,
 - b) Unconsolidated sandy alluvium,
 - c) Site within Seismic Zone 4.

Design standards in the ordinance include requirements for fill slopes, cut slopes, and drainage controls.

4.14.6 Project Impacts

This section describes the CEQA impact analysis relating to visual resources for the Project and alternatives. It describes the methods used to determine the Project's impacts and lists the thresholds used to conclude whether an impact would be significant. Federal and professional standards of visual assessment methodology have been used to determine potential impacts on aesthetic values of the project area. Measures to mitigate (avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

4.14.6.1 Methodology

In addition to using the concepts and terminology (described above) to categorize visual characteristics of the project area and the thresholds of significance (described below) to determine impacts to the visual characteristics, analysis of the visual effects of the project are based on:

- general familiarity with the region; and

- review of the project in regard to compliance with state and local ordinances and regulations and professional standards pertaining to visual quality.

4.14.6.2 Thresholds of Significance

Thresholds of Significance

Appendix G of the State CEQA Guidelines was used to derive the significance thresholds which are used to determine whether the proposed project would have a significant environmental effect. The proposed project may have a significant effect on visual resources under CEQA if it would:

- result in a substantial adverse effect on a scenic vista;
- result in degradation of scenic resources along a scenic highway;
- substantially degrade the existing visual character or quality of the site and its surroundings; or
- create substantial new sources of light and glare that would adversely affect day or nighttime views in the area.

4.14.6.3 Impact Analysis

Development under the 2007 General Plan up to the 2030 planning horizon and buildout in the year 2092 would affect scenic vistas, degrade scenic resources along scenic highways, degrade the visual character of Monterey County, and create substantial new sources of light and glare.

New development in the 2007 General Plan would alter topography, remove vegetation, and/or substantially change natural watercourses, resulting in significant adverse affects on scenic vistas and development could degrade scenic resources along scenic highways. The introduction of permanent urban uses on undeveloped land would substantially alter the visual character of the 2007 General Plan growth areas and result in the loss of natural aesthetic features. In addition, new sources of night time lighting resulting from new urban development in designated growth areas allowed by the implementation of the 2007 General Plan could result in light trespass, light pollution, and glare.

Scenic Vistas

Impact AES-1: Implementation of the 2007 General Plan would result in a substantial adverse effects on scenic vistas. (Less-Than-Significant Impact.)

2030 Planning Horizon

Impact of Development with Policies

Development under the 2007 General Plan up to the 2030 planning horizon would result in new urban development in undeveloped areas. See Exhibit 3.1 for an illustration of the types of land use that would be allowed in accordance with the 2007 General Plan. Depending on the particular projects pursued in the county, new development allowed by the 2007 General Plan could alter topography, remove vegetation, or substantially change natural watercourses that may impact scenic vistas. Scenic vistas of particular concern include the Gabilan Mountains near Pajaro, Castroville and Prunedale; Junipero Serra Peak near Chualar, San Lucas and Pine Canyon (King City); Carmel Valley near Lower Carmel Valley; and Mt. Toro near River Road/Las Palmas, San Benancio/Corral de Tierra, and Toro Park/Serra Village.

2007 General Plan Policies

The 2007 General Plan and Area Plan policies summarized below set forth comprehensive measures to avoid and minimize adverse impacts on scenic vistas.

Land Use Element

Land Use Element Policies LU-1.1 through LU-1.9 and LU-2.2 help to limit development of greenfields and natural areas which might be a part of scenic vistas and help to direct future growth away from scenic areas that would be most impacted by urban development. Policies LU-1.1 (requires that the type, location, timing, and intensity of growth in the unincorporated area be managed), LU-1.2 (discourages premature and scattered development), LU-1.3 (stipulates that balanced development of the county be assured through designating adequate land for a range of future land uses), LU-1.4 (limits growth to areas where an adequate level of services and facilities exists or can be assured concurrent with growth and development), LU-1.5 (requires that land uses be designated to achieve compatibility with adjacent uses), LU-1.6 (development of review process for development siting, design, and landscaping), LU-1.7 (allows for clustering of residential development to those portions of the property most suitable for development), LU-1.8 (encourages voluntary reduction or limitation of development potential in the rural and agricultural areas through dedication of

scenic or conservation easements, transfer of development rights, and other appropriate techniques), LU-1.9 (prioritizes infill of vacant non-agricultural lands in existing developed areas and new development within designated urban service areas), and LU-2.2 (restriction of residential development in areas that are unsuited for more intensive development due to the need to protect natural resources) are intended to ensure that growth in the unincorporated county would occur in a planned fashion and would be compatible with existing land uses. These policies discourage urban development outside of the incorporated cities, except within identified Community Areas and Rural Centers. As many of the scenic vistas in the county occur in unincorporated areas, these policies serve to limit development in visually valuable areas and conserve scenic lands thereby reducing the potential for impacts to scenic vistas in these areas. Policy LU 1.10 (off-site advertising) would help to avoid visual clutter with future development and protect scenic vistas.

Open Space and Conservation Element

Open Space and Conservation Element Policies OS-1.1 through OS-1.12 contain measures designed to preserve and protect the county's scenic resources and help direct future growth away from scenic areas that would be most impacted by urban development. Policies OS-1.1 (encourage restriction of development in visually sensitive areas), OS-1.2 (development in visually sensitive areas is subordinate to area's natural features), OS-1.3 (in order to preserve county's scenic resources, ridgeline development not allowed), OS-1.4 (criteria to be developed to guide design and construction on ridgelines where exceptions are made in accordance with policy OS-1.3), OS-1.5 (new subdivisions must avoid ridgelines), OS-1.6 (ridgelines in specific plan areas must follow guidelines set out by specific plans), OS-1.7 (establishment of voluntary, transfer of development rights program to direct development away from areas with unique visual or natural features), OS-1.8 (establish development clustering programs to reduce impacts to visually sensitive areas), OS-1.9 (encourage development that protects and enhances county's scenic qualities), OS-1.10 (establishment of trails program), OS-1.11 (maintain GIS mapping for all lands with visually sensitive resources and corridors) and OS-1.12 (mitigation of significant disruption of views from scenic routes) reduce the potential for impacts to scenic vistas by protecting the county's scenic areas from development and encouraging preservation of these visually valuable areas. Policy OS-3.5 (development on slopes over 30% is prohibited) ensures that development on ridgelines of a certain grade does not occur, thereby protected scenic vistas of and from those ridgelines.

Agricultural Element

Agricultural Element Policies AG-1.1 through AG-1.12 establish land use guidelines designed to preserve existing agricultural operations. Policies AG-1.1 (prohibits land uses that would interfere with routine and ongoing agricultural operations on viable farmlands), AG-1.2 (establishes a regulatory framework allowing for the use of agricultural buffers to protect existing agricultural operations), AG-1.3 (limits the subdivision of Important Farmland and land designated as Farmlands, Permanent Grazing, or Rural Grazing), AG-1.4 (requires that viable agricultural land uses on Important Farmland be conserved, enhanced, and expanded through agricultural land use designations and encouragement of large-lot agricultural zoning), AG-1.5 (encourages the use of tax and economic incentives for farms and ranches), AG-1.6 (allows farm worker housing in areas designated for agricultural land use, under certain conditions), AG-1.7 (encourages the clustering of residential uses accessory to the agricultural use of the land in locations that will have minimal impact on the most productive land), AG-1.8 (requires that discretionary development projects on agricultural lands be reviewed by the County's Agricultural Advisory Committee), AG-1.9 (allows agricultural operations to be protected from nuisance claims), AG-1.11 (stipulates that permits for agricultural activities be integrated with applicable Resource Conservation District permit coordination (streamlining) programs), AG-1.12 (requires the County to establish a program to mitigate the loss of Important Farmland when a proposed change of land use designation would result in the loss of Important Farmland (as mapped by the California Department of Conservation), including annexation of agricultural land to an incorporated area) set forth general measures to promote the long-term protection and conservation of existing productive agricultural lands. Further, the policies ensure that surrounding uses are compatible with agricultural land uses. Implementation of these policies would promote protection scenic vistas associated with agricultural production.

Agricultural Element Policies AG-2.1 through AG-2.4, and AG-2.8 and AG-2.9 identify measures to promote the viability and financial feasibility of agricultural business in the county. These policies define appropriate and compatible uses of agricultural lands. Policies AG-2.1 (allows agricultural support facilities serving onsite and offsite farming and ranching activities to be established in the Farmlands, Permanent Grazing, and Rural Grazing land use designations), AG-2.2 (encourages the establishment and retention of a broad range of agricultural support businesses and services to enhance the full development potential of the agricultural industry in the county), AG-2.3 (allows agricultural processing facilities to be developed in the Farmlands, Permanent Grazing, and Rural Grazing land use designations, where compatible and appropriate), AG-2.4

(requires agriculture-related enterprises and agricultural support uses to be sited and designed to minimize the loss of productive agricultural lands and to minimize impacts on surrounding land uses), AG-2.8 (restricts compatible recreational uses to those that do not adversely impact long-term productivity of onsite or adjacent agricultural uses), and AG-2.9 (allows onsite farm equipment storage facilities within agricultural land use designations) reduce the potential for impacts to agricultural land by maintaining the viability of agricultural activities, and thereby help to preserve the scenic vistas in the county that are associated with agricultural land uses.

Agricultural Element Policies AG-3.1 through AG-3.3 are designed to prevent inappropriate limitations on routine and ongoing agricultural activities. Policies AG-3.1 (permits routine and ongoing agricultural activities, and stipulates that activities with the potential for significant impacts are subject to a greater level of review), AG-3.2 (encourages cooperation between the County, the agricultural industry, and state and federal agencies to streamline permit procedures for routine and ongoing agricultural activities), and AG-3.3 (identifies a non-exclusive list of routine and ongoing agricultural activities that the County may consider for exemption from selected General Plan policies based on development of an ordinance in order to provide flexibility for agricultural operations to continue in the county and to meet the changing demands of both regional and global competition) support typical, routine agricultural activities in a manner that would reduce the potential for agricultural land conversion by allowing for their continuation and economic viability and reduce the potential for impacts to scenic vistas associated with agricultural land uses.

Area Plan Policies

The North County Area Plan

North County Area Plan Policies NC-1.2 (mushroom operations/scenic quality), NC-1.3 (steep slopes/elevations and preservation), NC-3.1 (Scenic Highways and Visual Sensitivity Map and public views), NC-3.2 (Carpenteria Road) and NC-3.3 (native vegetation and conservation) require new development to avoid adverse aesthetic impacts in areas of high visual sensitivity.

Greater Salinas Area Plan

Greater Salinas Area Plan Policies GS-1.1 (Butterfly Village and design requirements), GS-1.4 (Spreckels/harmonious development), GS-1.5 (Highway 68/Salinas River and screening), (Harrison Road/Highway 101 and screening), GS-3.1 (vegetation and slopes of 25%), GS-3.2 (native plants and screening), and GS-3.3 (trees and Speckels Blvd) require new development to avoid adverse aesthetic

impacts by being harmonious with existing developments and design requirements, utilize plants and trees to soften visual impacts of new development and protect vegetation on slopes of more than 25%.

Central Salinas Valley Area Plan

Central Salinas Valley Area Plan Policies CSV-3.1 (Scenic Highways and Visual Sensitivity Map and public views) and CSV-5.3 (Spencer/Potter Road and viewsheds) require that new development not disrupt public views in areas designated as sensitive or highly sensitive.

Greater Monterey Peninsula Area Plan

Greater Monterey Peninsula Area Plan Policy GMP-1.1 (overlay district) regulates location, height, and design of development which will help preserve the scenic corridor along Highway 68 and west of Laureles Grade. Policy GMP-1.4 (open space buffers) requires buffers in order to protect scenic resources. Policy GMP-1.5 (low density uses) encourages open space/low intensity uses in order to maintain areas of high visual sensitivity. Policy GMP-3.1 (public/private efforts) promotes efforts to restore the scenic beauty of visually impacted areas which will help expand the possibilities of successfully protecting these areas. Policy GMP-3.2 (site design) requires site design for development that will reduce the impact on scenic vistas. Policy GMP-3.3 (Visual Sensitivity Map) protects scenic vistas by stipulating that new development not disrupt public views in certain areas and promotes open space of highly sensitive areas on the map. Policy GMP-3.4 (screening) stipulates that plant materials be used to screen or soften the visual impact of new development. Policy GMP-4.1 (steep slopes) preserves land with certain vegetation/trees exceeding 25% slope which helps to avoid the loss of visual amenities.

Carmel Valley Master Plan

Carmel Valley Master Plan Policy CV-1.8 (clustered development) requires development to be clustered which helps to protect visible open space in sensitive visual areas. CV-1.19 (screening of mines) requires that mines or quarries be screened from public view which will help preserve scenic vistas. CV-1.20 (overlay districts) ensures visual compatibility with the character of Carmel Valley and immediate surrounding areas. CV-1.21 (commercial developments) stipulates height limits and large trees for commercial developments which will help screen these developments from scenic vistas. CV-2.9 (roads and scarring) prohibits roads that cross slopes steeper than 30% unless visible scarring can be mitigated. CV-3.2 requires that public vista areas be provided and improved. Policy CV-3.3 (Carmel Valley viewshed and distant hills) prohibits new development from

blocking views of the Carmel River or the distant hills. CV-3.4 (alteration of hillsides/natural landforms) requires that the alteration of hillsides and landforms be minimized which will help preserve the natural setting. CV-3.5 (signage restrictions) requires that signs not block views, cause visual clutter, or detract from the natural beauty. CV-3.18 requires that new aboveground transmission facilities be and follow the least visible route which will help to preserve scenic vistas.

Toro Area Plan

Toro Area Plan Policies T-1.5 (subdivisions designed outside of viewshed), Policy T-1.6 (transfer development rights), Policy 3.1 (Visual Sensitivity Map), Policy T-3.2 (site design), Policy T-3.3 (County and State scenic routes), and Policy T-3.6 (preservation of higher elevations/steep slopes) require new development to avoid adverse aesthetic impacts by maintaining viewsheds, offering mechanisms such as transfer development rights, encouraging site design and location sensitive to scenic vistas, and the preservation of areas that could be included in scenic vistas.

Cachagua Area Plan

Cachagua Area Plan Policies CACH-3.1 (Cachagua Visual Sensitivity and Scenic Routes Map), CACH-3.3 (hillsides and natural landforms), CACH-3.5 (resource production operations and mitigation), CACH-3.7 (Carmel and Arroyo Seco Rivers) require new development to avoid adverse aesthetic impacts by not allowing development to disrupt public views, limiting the alteration of hillsides and natural landforms, requiring mitigation of visual impacts from resource production operations, and preserving the visual aspects of the Carmel/Arroyo Seco Rivers.

South County Area Plan

South County Area Plan Policy SC-1.2 encourages clustered development in all areas where development is permitted in order to make the most efficient use of land and to preserve agricultural land and open space.

Agricultural Winery Corridor Plan

Included in the 2007 General Plan is an AWCP that is designed to promote the development of an integrated wine industry in Monterey County. The plan designates three winery corridors in the Salinas Valley. Prominent ridgelines and topographical features are visible from all three corridors. Highway 68, which serves as the northern terminus of the River Road/Arroyo Seco Road/Central Avenue Corridor is the only State Scenic Highway within the AWCP

boundaries. The AWCP overlays the Toro, Central Salinas Valley, and South County Area Plans, and policies relating to visual resources are applicable to the AWCP under this plan.

Community Area Policies

Fort Ord Master Plan

Fort Ord Master Plan Recreation Policy B-1 and Program E-2.3 (landfill design review), Policy D-1 (park facilities and scenic vistas), Program B-1.3 (design guidelines and bluffs), and Program B-1.4 (design guidelines for areas surrounding Fort Ord in County jurisdiction) require development to avoid adverse aesthetic impacts by reviewing the design of the landfill so that it becomes a visual asset for Fort Ord, locating and designing park facilities to provide scenic vistas, implement design guidelines for development on bluffs and Fort Ord.

County of Monterey Grading Ordinance

The County grading ordinance (Chapter 16.08 of the Monterey County Code) generally regulates grading activities greater than 100 cubic yards and over 2 feet in height. Submittal requirements for a grading permit issued by the County building official include site plans, existing and proposed contour changes, an estimate of the volume of earth to be moved, and soils or geotechnical reports (or both). Projects involving grading activities over 5,000 cubic yards must be prepared by a civil engineer, and geotechnical reports may be required also. Grading is not allowed to cause degradation of a waterway, and erosion control measures are required. Grading within 50 feet of a watercourse or within 200 feet of a river is regulated in the Zoning Code Floodplain regulations. The Zoning Code, Chapter 21.64.230, details specific regulations for development on slopes in excess of 30%. The County building official has regulatory authority over grading activities, although the MCWRA also enforces drainage regulations.

CEQA Review

In addition, future discretionary development activities contemplated by the 2007 General Plan would be required to undergo environmental review pursuant to CEQA. This review would include assessment of potential impacts on scenic vistas.

Significance Determination

New development by itself could potentially result in adverse impacts to scenic vistas. Monterey County contains a variety of scenic vistas including views of valleys, ridgelines, vegetation, watercourses and the coast. The

location of these scenic resources throughout the county is illustrated in Exhibit 4.14.1. New development is proposed to be allowed in the areas illustrated in Exhibit 4.14.1 with implementation of the 2007 General Plan. However, the 2007 General Plan and Area Plan policies described above set forth comprehensive measures to avoid and minimize adverse impacts on scenic vistas.

The 2007 General Plan and Area Plan policies summarized above identify visually sensitive locations in a general sense, place restrictions on future development in those areas, and explain how impacts would be minimized. Moreover, the 2007 General Plan employs land use concepts such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development. The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. It is speculative to analyze specific impacts to particular scenic vistas as those impacts will depend on the development pursued in the county in the coming years. T

The plans and policies set into place as a result of the 2007 General Plan would protect the scenic vistas, but further environmental analysis as required by CEQA would occur on a project specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the policies set forth in the 2007 General Plan are followed and that scenic vistas are not significantly impacted. Therefore, with incorporation of the 2007 General Plan and Area Plan policies, impacts to scenic vistas as a result of the implementation of the 2007 General Plan up to the planning horizon of 2030 would be reduced to less than significant levels. Impacts in this regard would be less than significant.

Mitigation Measures

No mitigation beyond the 2007 General Plan policies is necessary.

Significance Conclusion

The 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts on scenic vistas, as described above in the discussion of policies. Therefore, implementation of the policies would ensure that scenic vistas would not be significantly impacted by the 2007 General Plan development up to the 2030 planning horizon. Impacts in this regard would be less than significant.

Buildout

Impact of Development with Policies

Buildout of the 2007 General Plan in the year 2092 would result in new urban development in undeveloped areas beyond 2030 levels. See Exhibit 3.1 for an illustration of the types of land use that would be allowed

in accordance with the 2007 General Plan. Depending on the particular projects pursued in the county, new development allowed by the 2007 General Plan could alter topography, remove vegetation, or substantially change natural watercourses that may impact scenic vistas. Scenic vistas of particular concern include the Gabilan Mountains near Pajaro, Castroville and Prunedale; Junipero Serra Peak near Chualar, San Lucas and Pine Canyon (King City); Carmel Valley near Lower Carmel Valley; and Mt. Toro near River Road/Las Palmas, San Benancio/Corral de Tierra, and Toro Park/Serra Village.

2007 General Plan Policies

The 2007 General Plan and Area Plan policies summarized above identify visually sensitive locations and place restrictions on future development in those areas.

Significance Determination

New development could result in adverse impacts to scenic vistas. Monterey County contains a variety of scenic vistas including views of valleys, ridgelines, vegetation, watercourses and the coast. The location of these scenic resources throughout the county is illustrated in Exhibit 4.14.1. New development is proposed to be allowed in the areas illustrated in Exhibit 4.14.1 with implementation of the 2007 General Plan, however, the 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts on scenic vistas to the maximum extent practicable. The preceding General Plan and Area Plan policy discussion explains how impacts would be reduced. The 2007 General Plan employs land use concepts such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development. At the time of buildout, it is estimated that most of the remaining land to be developed in the county would be contained in lots of record, which are generally located in what are currently less developed areas of the county. However, development of the lots of record would still be required to follow the 2007 General Plan policies which protect scenic areas in the county, therefore, the development of the lots of record would not present a significant impact to scenic vistas

The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. No site-specific development projects are proposed as part of the 2007 General Plan. As a result, specific impacts to particular scenic vistas are unknown and would be speculative to analyze. Those impacts will depend on the character of the specific development projects pursued in the county in the coming years. The plans and policies set into place as a result of the 2007 General Plan would protect the scenic vistas, but further environmental analysis as required by CEQA would occur on a project specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the

policies set forth in the 2007 General Plan are followed and that scenic vistas are not significantly impacted. With implementation of the 2007 General Plan policies, all future development in the county would be required to avoid scenic vistas, as explained in the General Plan and Area Plan policy section above. Therefore, scenic vistas would not be significantly impacted by buildout of the 2007 General Plan. Impacts in this regard would be less than significant.

Mitigation Measures

No mitigation beyond the 2007 General Plan policies is necessary.

Significance Conclusion

The 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts on scenic vistas. Therefore, scenic vistas would not be significantly impacted by buildout of the 2007 General Plan. Impacts would be less than significant.

Scenic Highways

Impact AES-2: Implementation of the 2007 General Plan could result in the degradation of scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (Less-Than-Significant Impact.)

2030 Planning Horizon

Impact of Development with Policies

The area within the 2007 General Plan contains scenic highways and eligible scenic highways, as described in Section 4.14.4, above. Designated or eligible scenic highways within the planning area that area of particular concern include Highway 156 near Castroville, Highway 1 near Lower Carmel Valley, and Highway 68 near River Road/Las Palmas, San Benancio/Corral de Tierra, and Toro Park/Serra Village. See Exhibits 4.14.2 through 4.14-6 for an illustration of the scenic highways within the county. Depending on the particular projects pursued in the county, new development allowed by the 2007 General Plan could occur along scenic highways where scenic resources such as trees, rock outcroppings and historic buildings are located. Impacts to these roadways would be potentially significant.

2007 General Plan Policies

The 2007 General Plan and Area Plan policies summarized below set forth comprehensive measures to avoid and minimize adverse impacts on scenic highways.

Land Use Element

Land Use Element Policies LU-1.1 through LU-1.10 and LU-2.2 establish general land use concepts that emphasize city-centered growth, compatibility between adjacent land uses, and the conservation of natural areas. These policies are summarized under Impact AES-1. Collectively, these policies promote compact-urban growth in existing developed areas and discourage growth in natural areas where views from scenic highways would be most adversely impacted. Additionally, the 2007 General Plan Land Use Element emphasizes compact city-centered growth and discourages the encroachment of urban uses into undeveloped areas which will reduce the numbers of protected trees ultimately removed for development.

Open Space and Conservation Element

Open Space and Conservation Element Policies OS-1.1 through OS-1.12 set forth measures designed to preserve and protect the county's scenic resources. These policies are also summarized in detail under Impact AES-1. These measures include requirements prohibiting ridgeline development, encouraging the preservation of significant natural areas through the use of economic tools such as development credits and conservation easements, and a requirement that the disruption of views from designated scenic routes be mitigated through use of appropriate materials, scale, lighting and siting of development.

Policy OS-5.9 establishes that each Area Plan set forth tree removal permit requirements.

Policy OS-5.10 requires the establishment of regulations for tree removal, including Timberland Conversion, to be maintained by ordinance implementing Area Plan policies that address the following:

- a. Criteria when a permit is required including:
 1. number of trees,
 2. minimum size of tree,
 3. Post Timberland conversion land-use
- b. How size is measured for each protected species of tree, and what constitutes a landmark tree depending on the rate of growth for that species.
- c. Hazardous trees
- d. Pest and disease abatement
- e. Replacement criteria.

f. Ensure minimal removal

Policy OS-5.11 promotes conservation of large, continuous expanses of native trees and vegetation as the most suitable habitat for maintaining abundant and diverse wildlife.

Public Safety Element

Public Safety policies PS 12.1–12.17 support the protection and preservation of historic properties and buildings located within the county. These policies establish processes and implementation measures to assist in the identification, designation, and preservation of historic properties. In addition, the policies provide for tax incentives and other financial mechanisms to aid in the protection and management of historic structures. Please see Section 4.12, Cultural Resources, Impact: Historic Preservation for a more in-depth discussion of these policies.

Area Plan Policies

The Area Plans contain a number of policies designed to protect scenic resources, including views from scenic highways. In addition to the scenic resource policies summarized under Impact AES-1, the Area Plans contain specific policies for scenic highways.

The North County Area Plan

Policy NC-2.2 (protection of Old Stage Road) calls for the preservation of the historical value of Old Stage Road, which will ensure that the road maintains its historic integrity in spite of new development. Policy NC-3.1 (public views and Scenic Highways and Visual Sensitivity Map) and Policy NC-3.2 (protection of slopes) help to protect scenic resources on the on the Scenic Highways and Visual Sensitivity Map and along the southern approach to Aromas. Policy NC-3.4 discourages removal of healthy, native oak and madrone trees and requires a permit for the removal of any of these trees with a trunk diameter in excess of six inches at breast height. Trees removed must be replaced at a 1:1 ratio using nursery-grown trees of the same species that are a minimum of one gallon in size. Policy NC-3.6 (North County Historic Sites) lists sites to be considered for inclusion in a historical resources zoning district, which will encourage protection of such sites from destruction caused by future development.

Greater Salinas Area Plan

Policy 1.4 (restricted development of town of Spreckles) stipulates that future development projects in Spreckels be harmonious with the surrounding historic character and be reviewed by the Historic

Resource Review Board. Policy GS-2.3 (Highway 101 bypass) will incorporate sound deflection berms with appropriate landscaping which will help maintain scenic resources the highway. Policy GS-2.4 (Old Stage Road) will maintain scenic resources by requiring all new developments along Old Stage Road in the Greater Salinas Area Plan to be subject to design approval. Policy GS-3.3 (historic walnut tree maintenance and preservation) promotes preservation of the walnut trees along Spreckels Boulevard and encourages the use of private fund-raising efforts for tree maintenance. Implementation of these policies will help protect the town of Spreckels from possible destruction caused by future development. Policy GS-3.4 (support efforts to preserve historic resources) identifies the Boronda Adobe and Darrington Adobe as significant historical resources and promotes efforts of the Monterey County Historic Resources Review Board (HRRB) to maintain and preserve these sites. This will contribute to the protection and preservation of Monterey County's historic resources

Greater Monterey Peninsula Area Plan

Policy GMP-1.1 (overlays and other appropriate zoning designations), Policy GMP-2.6 (State Scenic Highway/County Scenic Route designations), and Policy GMP-3.3 (visually "sensitive" and "highly sensitive" areas generally visible from designated Scenic Highways), provide a variety of methods including zoning designations, easement dedications and restrictions of developments that help to protect scenic resources along scenic highways. GMP-3.5 requires development to be designed to prevent, to the maximum extent feasible, the destruction of native oak, pine, and redwood forest habitat.

Carmel Valley Master Plan

Policy CV-1.9 (clustered development), Policy CV-2.17 (undergrounding utility lines), and Policy CV-3.1 (setbacks along Carmel Valley Road) help to improve scenic vistas through less clutter of utility lines and increased open space. Policy CV-3.11 discourages removal of healthy, native oak and madrone trees and requires a permit for the removal of any of these trees with a trunk diameter in excess of six inches at breast height. Trees removed must be replaced at a 1:1 ratio using nursery-grown trees of the same species that are a minimum of one gallon in size. The policy includes penalties for tree removal that occurs without a permit. Policy CV-3.13 (designation and protection of historic resources) stipulates that future development in Carmel Valley preserve the integrity of historical sites. Implementation of this policy will aid in preventing the damage or destruction of historic resources potentially caused by future development.

Toro Area Plan

Policy T-2.8 (County Scenic Route designations), Policy T-3.3 (scenic routes designated as critical viewshed), and Policy T-3.4 (undergrounding utility lines) improve scenic vistas by pursuing County Scenic Route designations, increasing the number of scenic routes as critical viewsheds and through less clutter of utility lines. Policy T-3.7 discourages the removal of healthy trees with diameters in excess of eight inches.

Cachagua Area Plan

Policy CACH-2.2 (County Scenic Route designations) encourages the County to pursue additional designations. CACH-3.4 discourages the removal of native trees and specified the conditions under which they are allowed to be removed. Policy CACH-3.6 promotes cooperation with the United States Forest Service and private property owners to ensure that Santa Lucia fir are protected.

South County Area Plan

Policy SC-2.1 states that additional scenic routes shall not be designated in the South County Planning Area.

Agricultural Winery Corridor Plan

Highway 68 is the only officially designated state scenic highway that could potentially be affected by the AWCP. The intersection of Highway 68 and River Road in the Las Palmas area is at the very northern end of the AWCP boundaries and is contemplated to be enhanced with a treatment identifying it as a gateway to the River Road winery corridor. This treatment would consist of a sign that identifies entry into the corridor and may be coordinated with a visitor center to provide other amenities such as kiosks. The treatment would be designed to be visually appealing and would be consistent with Highway 68's designation as an officially designated state scenic highway in this area.

The AWCP recognized that "important visual elements such as native trees, ridgelines, frontal slopes, and scenic road corridors are especially critical to give the Corridor its identity." In addition, to maintain the current rural character, road improvements should be limited to enhancing the scenic corridor and promoting safe circulation. Also, the AWCP has established design criteria that have been established with the intent to design the wineries to achieve continuity and establish a larger visual context that creates a sense of place and seeks to encourage creativity while creating an overall vision for the AWCP that is in keeping with the existing rural character.

The AWCP is a component of the 2007 General Plan and is consistent with its proposed goals and policies including those that pertain to scenic highways. These policies are summarized under Impact AES-2. Furthermore, all wineries and tasting rooms that would be developed in accordance with the AWCP would be required to comply with the County's applicable design requirements, policies, and ordinances that protect views from scenic highways (i.e., Highway 68). Therefore, views from Highway 68 would not be degraded by implementation of the AWCP. Accordingly, impacts would be less than significant.

The proposed AWCP boundaries contain existing agricultural areas of the Salinas Valley. No scenic vistas exist within these boundaries. Moreover, the AWCP is intended to facilitate the development of limited wineries and tasting rooms. These land uses are inherently agricultural supporting and would be consistent with the existing land uses of the Salinas Valley. The AWCP is a component of the 2007 General Plan and is consistent with its proposed goals and policies including those that pertain to protection of scenic vistas. These policies are summarized under Impact AES-1. All wineries and tasting rooms that would be developed in accordance with the AWCP would be required to comply with the applicable design policies and ordinances. Therefore, views from scenic vistas of the Salinas Valley would not be compromised by implementation of the AWCP.

Precise locations of future AWCP facilities are unknown at the time of this writing, and therefore, it is speculative to engage in further analysis of impacts on scenic vistas. Further analysis of potential scenic vista impacts will be done at the project level.

Community Area Plans

Fort Ord Master Plan

Commercial Land Use Policy F-1 and Institutional Land Use Policy D-1 (regional urban design guidelines) protect scenic resources along scenic highways through requiring the County of Monterey to support FORA in the preparation of regional urban design guidelines, including a scenic corridor design overlay area. Policy C-2 requires the County to encourage the preservation and enhancement of native oak woodland elements in the natural and built environments.

Federal and State Scenic Highway Preservation Programs

All future development activities contemplated by the 2007 General Plan would be required to comply with all applicable federal and state statutes that concern the preservation of scenic roadways

(e.g., the National Scenic Byways Program and the California Scenic Highway Program).

Federal and State Historic Preservation Requirements

All future development activities contemplated by the 2007 General Plan would be required to comply with all applicable federal and state statutes that concern the preservation of historical resources (e.g., the National Historic Preservation Act).

CEQA Review

In addition, future discretionary development activities contemplated by the 2007 General Plan would be required to undergo environmental review pursuant to CEQA. This review would include assessment of potential impacts on scenic highways.

Significance Determination

New development could potentially result in adverse impacts to scenic highways. Monterey County contains many scenic highways, which can be seen in Exhibits 4.14.2 through 4.14.6. The location of specific scenic resources such as trees, rock outcroppings and historic buildings along the highways is not known at this time, however, a general depiction of the scenic resources in the county is illustrated in Exhibit 4.14.1. New development is proposed to be allowed in the areas illustrated in Exhibit 4.14.1 with implementation of the 2007 General Plan, however, the 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts on scenic resources within scenic highways. The General Plan and Area Plan policy discussion on the previous pages explains how impacts would be reduced. The existing federal and state historic preservation requirements protects historic buildings that may be located along scenic highways. The County's existing tree preservation ordinance also sets forth criteria for removal of certain types of significant trees, including those located along scenic highways. Moreover, the 2007 General Plan employs land use concepts such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development. The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. It is speculative to analyze specific impacts to particular scenic resources along scenic highways as those impacts will depend on the development pursued in the county in the coming years. The plans and policies set into place as a result of the 2007 General Plan would protect the scenic resources along scenic highways, but further environmental analysis as required by CEQA would occur on a project specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the policies set forth in the 2007 General Plan are followed and that scenic resources are not significantly impacted. Therefore, with incorporation of the 2007 General

Plan and Area Plan policies, impacts to scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings, as a result of the implementation of the 2007 General Plan up to the planning horizon of 2030 would be reduced to less than significant levels. Impacts in this regard would be less than significant.

Mitigation Measures

No mitigation beyond the 2007 General Plan policies is necessary.

Significance Conclusion

Scenic highways would not be significantly impacted by the 2007 General Plan development up to the planning horizon of 2030. No mitigation beyond the 2007 General Plan policies is necessary. Impacts would be less than significant.

Buildout

Impact of Development with Policies

Future development envisioned by the 2007 General Plan could occur in areas within the viewshed of a scenic highway or eligible scenic highway beyond 2030 levels.

2007 General Plan Policies

The 2007 General Plan and Area Plan policies summarized above identify set forth comprehensive measures to avoid and minimize adverse impacts on scenic highways to the maximum extent practicable.

Significance Determination

New development could potentially result in adverse impacts to scenic highways. Monterey County contains many scenic highways, which can be seen in Exhibits 4.14.2 through 4.14.6. The location of specific scenic resources such as trees, rock outcroppings and historic buildings along the highways is not known at this time; however, a general depiction of the scenic resources in the county is illustrated in Exhibit 4.14.1. New development is proposed to be allowed in the areas illustrated in Exhibit 4.14.1 with implementation of the 2007 General Plan, however, the 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts on scenic resources within scenic highways.

The preceding General Plan and Area Plan policy discussion explains how impacts would be reduced by 2007 General Plan policies. The existing federal and state historic preservation requirements protects historic buildings that may be located along scenic highways. The County's existing tree preservation ordinance also sets forth criteria for removal of certain

types of significant trees, including those located along scenic highways. Moreover, the 2007 General Plan employs land use concepts such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development. At the time of buildout, it is estimated that most of the remaining land to be developed in the county would be contained in lots of record, which are generally located in what are currently less developed areas of the county. However, development of the lots of record would still be required to follow the 2007 General Plan policies which protect scenic areas in the county, therefore, the development of the lots of record would not present a significant impact to scenic vistas.

The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. As discussed above, the analysis of specific impacts to particular scenic resources along scenic highways would be speculative because those impacts will depend on the specific development projects pursued in the county in the coming years. The plans and policies set into place as a result of the 2007 General Plan would protect the scenic resources along scenic highways, but further environmental analysis as required by CEQA would occur on a project specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the policies set forth in the 2007 General Plan are followed and that scenic resources are not significantly impacted. Therefore, with incorporation of the 2007 General Plan and Area Plan policies, impacts to scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings, as a result of the buildout of the 2007 General Plan. Impacts in this regard would be less than significant.

Mitigation Measures

No mitigation beyond the 2007 General Plan policies is necessary.

Significance Conclusion

With implementation of the 2007 General Plan and Area Plan policies, scenic highways would not be significantly impacted by buildout of the 2007 General Plan through 2092. No mitigation beyond the 2007 General Plan policies is necessary. Impacts in this regard would be less than significant.

Visual Character

Impact AES-3: Implementation of the 2007 General Plan would substantially degrade the existing visual character or quality of Monterey County. (Significant and Unavoidable Impact.)

2030 Planning Horizon

Impact of Development with Policies

New urban development in the proposed 2007 General Plan growth areas during the 2030 planning horizon would result in the permanent conversion of undeveloped land to urban uses. See Exhibit 3.1 for an illustration of the types of land use that would be allowed in accordance with the 2007 General Plan. Development actually occurring with the county would depend on the particular projects pursued in the county and cannot be determined at this time, but may include roads, utilities, structures, earthworks, and the results of other human activities. The introduction of permanent urban uses on undeveloped land as allowed by the 2007 General Plan could alter topography, remove vegetation, or substantially change natural watercourses that may substantially alter the visual character of the 2007 General Plan growth areas (Community Areas, Rural Centers, Affordable Housing Overlay Districts [AHOs] and lots of record) and result in the loss of natural aesthetic features. Below is a summary of the Community Areas, Rural Centers, AHOs and lots of record that would experience significant visual character impacts.

Chualar: The 2007 General Plan would allow urban-level development to this small rural agricultural community subject to further planning. Future growth would permanently convert agricultural land to urban uses, thereby irreversibly altering the visual appearance of the community and surrounding area.

San Lucas: The 2007 General Plan would allow additional urban development on agricultural land at the edge of the existing community. While San Lucas already contains urban development, the intensity of this new development could fundamentally alter the visual character of this area.

Rural Centers: While the 2007 General Plan contemplates only limited additional development in Rural Centers, certain ones—particularly those in rural parts of the county—would experience a greater visual change than others. Notable examples include Bradley, Lockwood, Pleyto, and San Ardo. Due to their distance from other communities as well as the low intensity of existing development, any new development in these Rural Centers would cause a fundamental change in the community's appearance.

Affordable Housing Overlay Districts (AHOs): In the AHOs, landowners would be encouraged to build affordable housing at high density. A property owner within an AHO may voluntarily propose an affordable housing project

rather than a use otherwise allowed by the underlying land use designation. There are three AHOs identified in the 2007 General Plan: Mid-Carmel Valley; Highway 68/Monterey Peninsula Airport; and Reservation Road/Highway 68. Although the AHOs are located in urban areas within the county, the increased density allowed in AHO may affect the visual character of the surrounding land.

Lots of Record: In addition to the nodes of urban development including Community Areas, Rural Centers and AHOs, there will be individual lots of record developing. Lots of records are individual lots with single family homes when developed. They would have a less intense affect on the environment than development in the urbanized nodes where higher densities would be allowed, however they would still pose a potential for affecting visual character due to their generally rural locations.

Generally, the visual character in Monterey County is associated with non-urban features such as agriculture, ocean views, and rugged natural areas. Additional urban growth in the Community Areas, Rural Centers, AHOs, and lots of record would alter the visual ambiance towards a more urban character. Accordingly, future development contemplated by the 2007 General Plan would be a significant impact.

2007 General Plan Policies

The 2007 General Plan contains goals and policies that address adverse impacts on the county's visual character from the 2007 General Plan development.

Land Use Element

Land Use Element Policies LU-1.1 through LU-1.10 and LU-2.2 establish general land use concepts that emphasize city-centered growth, compatibility between adjacent land uses, and the conservation of natural areas. These policies are summarized in detail under Impact AES-1. Collectively, these policies promote compact-urban growth in existing developed areas and therefore discourage growth in natural areas where urban development would have the most deleterious impact on visual character.

Open Space and Conservation Element

Open Space and Conservation Element Policies OS-1.1 through OS-1.12 set forth measures designed to preserve and protect the county's scenic resources. These policies are also summarized in detail under Impact AES-1. These measures help to reduce impacts on Monterey's visual character by including requirements that prohibit ridgeline development, encourage the preservation of significant natural areas through the use of economic tools such as development credits and conservation easements, and require that the disruption of

views from designated scenic routes be mitigated through use of appropriate materials, scale, lighting, and siting of development.

Area Plan Policies

The Area Plan contains a number of policies designed to protect scenic resources, including views from scenic highways and therefore help to reduce impacts on Monterey's visual character. These scenic resource policies are summarized under Impact AES-1 and Impact AES-2.

Agricultural Winery Corridor Plan

The AWCP would allow the development of a maximum of 40 artisan wineries, 10 full-scale wineries, and 10 stand-alone tasting rooms along the three corridors specified in the plan. In addition, the AWCP identifies the maximum number of each type of facility that can be developed on each corridor to balance development and avoid over concentration of facilities in one area. These limitations would largely maintain the existing visual character along the three corridors and prevent a substantial degradation of the agricultural character of the AWCP area. Moreover, all facilities developed in accordance with the AWCP would be agricultural-supporting and would complement the agricultural character of the area.

The AWCP recognized that "important visual elements such as native trees, ridgelines, frontal slopes, and scenic road corridors are especially critical to give the Corridor its identity." The AWCP has established design criteria have been established with the intent to design the wineries to achieve continuity and establish a larger visual context that creates a sense of place and seeks to encourage creativity while creating an overall vision for the AWCP that is in keeping with the existing rural character.

The AWCP is a component of the 2007 General Plan and is consistent with its proposed goals and policies including those that pertain to visual character. These policies are summarized under Impact AES-3. Furthermore, all wineries and tasting rooms that would be developed in accordance with the AWCP would be required to comply with the County's applicable design policies and ordinances, including those contained in the AWCP.

Precise locations of future AWCP facilities are unknown at the time of this writing, and therefore, it is speculative to engage in further analysis of visual character impacts. Further analysis of potential visual character impacts will be done at the project level.

CEQA Review

In addition, future discretionary development activities contemplated by the 2007 General Plan would be required to undergo environmental review pursuant to CEQA. This review would include assessment of potential impacts on visual character.

Significance Determination

Development and land use activities contemplated by the proposed 2007 General Plan would result in substantial changes to the county's visual character in the Community Areas, Rural Centers, AHOs and lots of record in the county. These areas would experience more intense urban development that would fundamentally change their visual appearance. Depending on the particular projects pursued in the county, new development allowed by the 2007 General Plan would vary and is not knowable at this time, although changes to valleys, vegetation, and watercourses could occur. While urban uses would primarily be sited in locations that already support urban development, the introduction of additional urban development in these areas would irreversibly alter the localized visual character of these portions of the unincorporated county.

The 2007 General Plan and Area Plan policies set forth comprehensive measures and land use concepts to avoid and minimize adverse impacts on visual character to the maximum extent practicable. The General Plan and Area Plan policy discussion on the previous pages explains how impacts would be reduced. These policies emphasize aesthetic compatibility through approaches such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development. The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. It is speculative to analyze specific impacts to visual character in the Community Areas, Rural Centers, AHOs and lots of record as those impacts will depend on the development pursued in the county in the coming years. The plans and policies set into place as a result of the 2007 General Plan would protect the visual character of the county, but further environmental analysis as required by CEQA would occur on a project specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the policies set forth in the 2007 General Plan are followed and that scenic resources avoided the greatest extent practicable. Furthermore, future development would be required to comply with all applicable zoning restrictions including those that pertain to setbacks, height restrictions, landscaping, and other aesthetic considerations.

Nonetheless, the 2007 General Plan would substantially and irreversibly degrade the existing visual character and quality of Monterey County in Community Areas, Rural Centers, AHOs and lots of record. State planning law, housing element provisions requires the County to provide sufficient development sites to meet its regional housing share. The growth centers

demonstrate that the County is meeting this state requirement. The County cannot prohibit new development, which would be the only way to reduce impacts to visual character to less than significant. Therefore, no mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a significant and unavoidable impact.

Mitigation Measures

No mitigation beyond the 2007 General Plan policies is available.

Significance Conclusion

In summary, the 2007 General Plan and Area Plan policies set forth comprehensive measures and land use concepts to avoid and minimize adverse impacts on visual character to the maximum extent practicable. However, the alteration of Monterey County's localized visual character in designated growth areas would be an irreversible consequence of 2007 General Plan development up to the planning horizon of 2030. No mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a significant and unavoidable impact.

Buildout

Impact of Development with Policies

New urban development under the proposed 2007 General Plan would result in the permanent conversion of undeveloped land to urban uses and alter the visual character of the 2007 General Plan growth areas beyond 2030 levels. After 2030, it is expected that the remaining land to be developed in the county would be the generally rurally located lots of record. Impacts to specific visual characteristics would be determined during the CEQA review process for each project proposed within the county and are not identifiable at this time because proposed future development cannot be projected. However, in a general sense it is possible to say that implementation of the 2007 General Plan would alter the visual character of the county.

2007 General Plan Policies

The 2007 General Plan contains goals and policies that address adverse impacts on the county's visual character from buildout of the 2007 General Plan and are discussed above.

Significance Determination

Buildout of the General Plan to 2092 would result in substantial changes to the county's visual character in the lots of record by substantially increasing the amount development in the county and the alteration of land use activities, primarily from agricultural to residential and commercial. These areas would experience more intense urban development that would fundamentally change their visual appearance. Depending on the particular

projects pursued in the county, new development allowed by the 2007 General Plan would vary and is not knowable at this time, although changes to valleys, ridgelines, vegetation and watercourses could occur. While urban uses would primarily be sited in locations that already support urban development, the introduction of additional urban development in these areas would irreversibly alter the localized visual character of these portions of the unincorporated county.

The 2007 General Plan and Area Plan policies set forth comprehensive measures and land use concepts to avoid and minimize adverse impacts on visual character to the maximum extent practicable. The General Plan and Area Plan policy discussion on the previous pages explains how impacts would be reduced. These policies emphasize aesthetic compatibility through approaches such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development. At the time of buildout, it is estimated that most of the remaining land to be developed in the county would be contained in lots of record, which are generally located in what are currently less developed areas of the county. However, development of the lots of record would still be required to follow the 2007 General Plan policies which protect scenic areas in the county.

The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. It is speculative to analyze specific impacts to visual character in the lots of record as those impacts will depend on the development pursued in the county in the coming years. The plans and policies set into place as a result of the 2007 General Plan would protect the visual character of the county, but further environmental analysis as required by CEQA would occur on a project specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the policies set forth in the 2007 General Plan are followed and that scenic resources are avoided the greatest extent practicable. Furthermore, future development would be required to comply with all applicable zoning restrictions including those that pertain to setbacks, height restrictions, landscaping, and other aesthetic considerations.

Nonetheless, the 2007 General Plan would substantially and irreversibly degrade the existing visual character and quality of Monterey County in lots of record. State planning law, housing element provisions requires the County to provide sufficient development sites to meet its regional housing share. The growth centers demonstrate that the County is meeting this state requirement. The County cannot prohibit new development, which would be the only way to reduce impacts to visual character to less than significant. Therefore, no mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a significant and unavoidable impact.

Mitigation Measures

No mitigation beyond the 2007 General Plan policies is available.

Significance Conclusion

The 2007 General Plan and Area Plan policies set forth comprehensive measures and land use concepts to avoid and minimize adverse impacts on visual character to the maximum extent practicable. However, the alteration of Monterey County's localized visual character in lots of record would be an irreversible consequence of 2007 General Plan buildout through 2092. No mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a significant and unavoidable impact.

Light and Glare

Impact AES-4: Implementation of the 2007 General Plan could create substantial new sources of light and glare that would adversely affect day or nighttime views in the area. (Significant Unavoidable Impact.)

2030 Planning Horizon

Impact of Development with Policies

New urban development in the proposed 2007 General Plan growth areas during the planning horizon would result in the permanent conversion of undeveloped land to urban uses. See Exhibit 3.1 for an illustration of the types of land use that would be allowed in accordance with the 2007 General Plan. Development actually occurring with the county would depend on the particular projects pursued in the county and cannot be determined at this time, but may include roads, utilities, structures, earthworks, and the results of other human activities. New sources of night time lighting resulting from new urban development in designated growth areas allowed by the implementation of the 2007 General Plan could result in light trespass, light pollution, and glare. Light trespass is unwanted light from a neighboring property or roadway and can be both a nuisance and a health and safety risk if it adversely affects visibility for tasks like driving. Light pollution has a broader and more cumulative impact than light trespass to county residents. Excessive nighttime lighting could result in sky glow, the haze of light that surrounds highly populated areas and reduces the ability to see the stars. This could change the appearance of the nighttime sky over the long term. New sources of light and glare in Community Areas and Rural Centers adjacent to agricultural areas would alter the visual appearance of these landscapes. Specific impacts to surrounding land uses from future development cannot be determined at this time due to the dependence of the impacts on the developments' design characteristics, orientation, location, and other project specific information. However, it is possible to say that collectively, these new sources of light and glare could degrade and diminish daytime and nighttime views of visual resources such as valleys, ridgelines, vegetation, watercourses, and coastlines. This would be a significant impact.

2007 General Plan Policies

The 2007 General Plan contains goals and policies that help reduce light and glare impacts.

Land Use Element

Land Use Element Policies LU-1.1 through LU-1.10 and LU-2.2 establish general land use concepts that emphasize city-centered growth, compatibility between adjacent land uses, and the conservation of natural areas. These policies are summarized in detail under Impact AES-1. Collectively, these policies promote compact-urban growth in existing developed areas and therefore discourage growth in natural areas where light and glare impacts would be most deleterious to nighttime views.

Land Use Element Policy LU-1.13 specifically addresses light and glare impacts. The policy requires that all exterior lighting shall be unobtrusive and constructed or located so that only the intended area is illuminated, long-range visibility is reduced, and offsite glare is fully controlled. The policy also stipulates that new criteria to guide the review and approval of exterior lighting be developed.

Open Space and Conservation Element

Open Space and Conservation Element Policies OS-1.1 through OS-1.12 set forth measures designed to preserve and protect the county's scenic resources. These policies are also summarized in detail under Impact AES-1. These measures help reduce light and glare impacts by prohibiting ridgeline development, encouraging the preservation of significant natural areas through the use of economic tools such as development credits and conservation easements, and a requirement that the disruption of views from designated scenic routes be mitigated through use of appropriate materials, scale, lighting, and siting of development.

Area Plan Policies

Area Plans contain a number of policies designed to protect scenic resources from light and glare. In addition to the Area Plan policies summarized under Impact AES-1, the following area plans include additional policies that specifically pertain to light and glare.

Central Salinas Valley Area Plan

There are no additional policies related to light and glare in the area plan.

Carmel Valley Master Plan

Policy CV-3.16 (outdoor sports) prohibits lighting for outdoor sports where it would be visible from offsite locations. Policy CV-3.17 (street lighting) stipulates that street lighting be unobtrusive and harmonious with the local character, constructed and located to illuminate only the intended area, and prevent offsite glare.

Toro Area Plan

Policy T-3.5 (minimize light sources) requires that exterior and outdoor lighting be located, designed, and enforced to minimize light sources and preserve the quality of darkness. The policy also requires that street lighting be as unobtrusive as practicable.

Cachagua Area Plan

Policy CACH-1.6 (night sky) reduces light and glare by not allowing exterior lighting to exceed the minimum required to assure safety.

Agricultural Winery Corridor Plan

New wine making and tasting facilities contemplated by the AWCP would emit new sources of light and glare from outdoor lighting and reflective building materials. However, as noted above, the AWCP prescribes a maximum number of wine-related facilities on each corridor to avoid over concentrating these facilities in one area. This would disperse new sources of light and glare in a manner that would substantially reduce adverse impacts to a level of less than significant.

The AWCP requires that parking areas that are generally visible from a public road landscaping shall be integrated to soften the appearance and to buffer headlights from shining onto the roadway. Lighting poles and fixtures will be designed, located and operated in a manner to focus light on the subject property and limit off-site glare. Also, entry signs will have no internal illumination or neon tubing and limited back lighting for visibility in fog and dim lighting.

The AWCP is a component of the 2007 General Plan and is consistent with its proposed goals and policies including those that pertain to light and glare. These policies are summarized under Impact AES-4. Furthermore, all wineries and tasting rooms that would be developed in accordance with the AWCP would be required to comply with the county's applicable light and glare policies and ordinances, including those contained in the AWCP.

Precise locations of future AWCP facilities are unknown at the time of this writing, and therefore, it is speculative to engage in further

analysis of light and glare impacts. Further analysis of potential light and glare impacts will be done at the project level.

Community Area Policies

Fort Ord Master Plan

Program A-4.3 (direction of lighting) reduces light and glare impacts by requiring that the County shall direct all lighting in the Community Park and in the residential areas west of the RV parcel away from the natural lands in the habitat corridor. Biological Resources Policy C-3 (lighting and wildlife) reduces light and glare impacts by requiring that lighting of outdoor areas shall be minimized and carefully controlled to maintain habitat quality for wildlife in undeveloped natural lands. Street lighting shall be as unobtrusive as practicable and shall be consistent in intensity throughout development areas adjacent to undeveloped natural lands. Program C-3.1 (development review) helps to reduce impacts by requiring that the County review lighting and landscape plans for all development applications to ensure consistency with Policy C-3.

CEQA Review

In addition, future discretionary development activities contemplated by the 2007 General Plan would be required to undergo environmental review pursuant to CEQA. This review would include assessment of potential impacts on light and glare.

Significance Determination

New urban development permitted by the 2007 General Plan would result in localized adverse light and glare impacts on nighttime views in designated growth areas. The 2007 General Plan and Area Plan policies set forth comprehensive measures and land use concepts to avoid and minimize adverse impacts from light and glare to the maximum extent practicable. The General Plan and Area Plan policy discussion on the previous pages explains how impacts would be reduced. These policies emphasize aesthetic compatibility through approaches such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development.

The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. It is speculative to analyze specific impacts to particular scenic resources along scenic highways as those impacts will depend on the development pursued in the county in the coming years. The plans and policies set into place as a result of the 2007 General Plan would reduce impacts from light and glare, but further environmental analysis as required by CEQA would occur on a project

specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the policies set forth in the 2007 General Plan are followed and that impacts from light and glare are avoided the greatest extent practicable. These mitigation measures are best implemented on a project specific basis as they will then be tailored to the specific needs of the site, development, and surrounding land uses.

While the 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts from light and glare to the maximum extent practicable (see General Plan and Area Plan policies discussion on the previous pages explains how impacts would be reduced), it would still create a new source of substantial light and glare that would adversely affect day and nighttime public views. As this is a programmatic document, it is not feasible to develop mitigation that would apply effectively to all future development in the county due to the differences of each development in their location, orientation, design, and proposed land uses. No mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a Significant Unavoidable Impact of the 2007 General Plan.

Mitigation Measures

No mitigation beyond the 2007 General Plan policies is available.

Significance Conclusion

The 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts from light and glare to the maximum extent practicable. No mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a Significant Unavoidable Impact of the 2007 General Plan.

Buildout

Impact of Development with Policies

Buildout of the 2007 General Plan in 2092 would result in localized adverse light and glare impacts on nighttime views in lots of record from new urban development permitted by the General Plan. See Exhibit 3.1 for an illustration of the types of land use that would be allowed in accordance with the 2007 General Plan. Development actually occurring within the county would depend on the particular projects pursued in the county and cannot be determined at this time, but may include roads, utilities, structures, earthworks, and the results of other human activities. New sources of night time lighting resulting from new urban development in and around lots of development allowed by the implementation of the 2007 General Plan could result in light trespass, light pollution, and glare. Light trespass is unwanted light from a neighboring property or roadway and can be both a nuisance and a health and safety risk if it adversely affects visibility for tasks like driving. Light pollution has a broader and more cumulative impact than light trespass

to county residents. Excessive nighttime lighting could result in sky glow, the haze of light that surrounds highly populated areas and reduces the ability to see the stars. This could change the appearance of the nighttime sky over the long term. New sources of light and glare in and around lots of record adjacent to agricultural areas would alter the visual appearance of these landscapes. Specific impacts to surrounding land uses from future development cannot be determined at this time due to the dependence of the impacts on the developments' design characteristics, orientation, location, and other project specific information. However, it is possible to say that collectively, these new sources of light and glare could degrade and diminish daytime and nighttime views of visual resources such as valleys, ridgelines, vegetation, watercourses, and coastlines. This would be a significant impact.

2007 General Plan Policies

The 2007 General Plan contains goals and policies that address light and glare impacts from buildout of the 2007 General Plan are discussed above.

Significance Determination

Buildout of the 2007 General Plan to 2092 would result in localized adverse light and glare impacts on nighttime views in designated growth areas. The 2007 General Plan and Area Plan policies set forth comprehensive measures and land use concepts to avoid and minimize adverse impacts from light and glare to the maximum extent practicable. The General Plan and Area Plan policy discussion on the previous pages explains how impacts would be reduced. These policies emphasize aesthetic compatibility through approaches such as city-centered growth and preservation of natural areas that would direct future growth away from scenic areas that would be most deleteriously impacted by urban development. At the time of buildout, it is estimated that most of the remaining land to be developed in the county would be contained in lots of record, which are generally located in what are currently less developed areas of the county. However, development of the lots of record would still be required to follow the 2007 General Plan policies which reduce impacts from light and glare.

The 2007 General Plan is a programmatic document intended to provide a framework for development in the county. It is speculative to analyze specific impacts to particular scenic resources along scenic highways as those impacts will depend on the development pursued in the county in the coming years. The plans and policies set into place as a result of the 2007 General Plan would reduce impacts from light and glare, but further environmental analysis as required by CEQA would occur on a project specific basis and appropriate mitigation for each development site would be identified at that time in order to ensure that the policies set forth in the 2007 General Plan are followed and that impacts from light and glare are avoided the greatest extent practicable. These mitigation measures are best

implemented on a project specific basis as they will then be tailored to the specific needs of the site, development, and surrounding land uses.

While the 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts from light and glare to the maximum extent practicable (see General Plan and Area Plan policies discussion on the previous pages explains how impacts would be reduced), it would still create a new source of substantial light and glare that would adversely affect day and nighttime public views. As this is a programmatic document, it is not feasible to develop mitigation that would apply effectively to all future development in the county due to the differences of each development in their location, orientation, design, and proposed land uses. No mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a Significant Unavoidable Impact of the 2007 General Plan.

Mitigation Measures

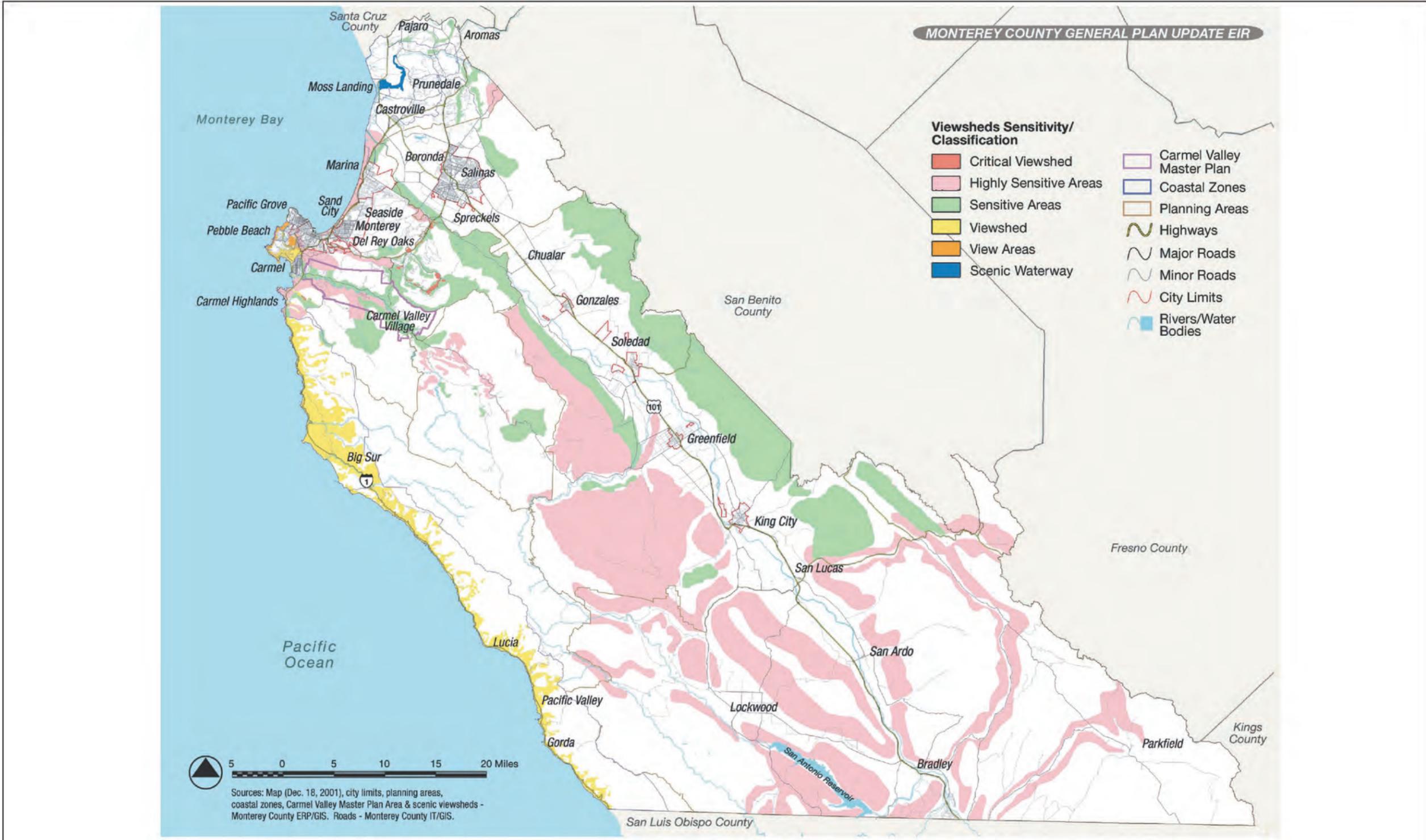
No additional mitigation beyond the 2007 General Plan policies are available.

Significance Conclusion

Buildout of the General Plan in the year 2092 would create new sources of substantial light and glare that would adversely affect day and nighttime public views from urban development in lots of record. While the 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts from light and glare to the maximum extent practicable, this would still remain an irreversible consequence of buildout of the General Plan in the year 2092. No mitigation is available to reduce the significance of this impact to a level of less than significant. Therefore, this is a Significant Unavoidable Impact of the 2007 General Plan.

4.14.7 Level of Significance after Mitigation

Alteration of the localized visual character (Impact AES-3) and the introduction of new sources of light and glare in designated growth areas (Impact AES-4) would be Significant and Unavoidable Impacts resulting from the implementation of the 2007 General Plan at the planning horizon in the year 2030 and at buildout in the year 2092. The Monterey County Board of Supervisors will be required to adopt a Statement of Overriding Considerations for these impacts if the proposed project is adopted. All other impacts would be less than significant and would not require mitigation.



Viewsheds Sensitivity/Classification

- Critical Viewshed
- Highly Sensitive Areas
- Sensitive Areas
- Viewshed
- View Areas
- Scenic Waterway

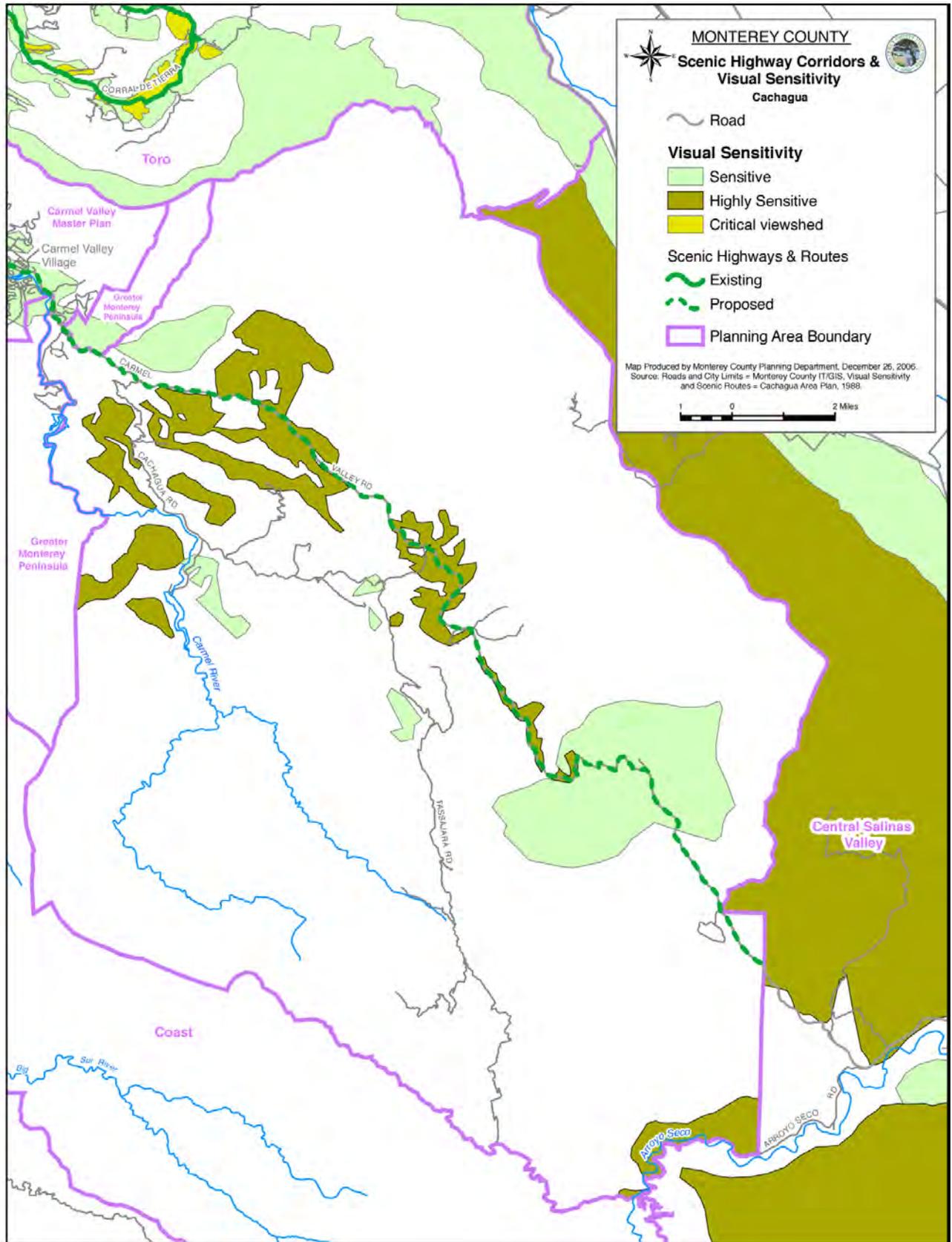
- Carmel Valley Master Plan
- Coastal Zones
- Planning Areas
- Highways
- Major Roads
- Minor Roads
- City Limits
- Rivers/Water Bodies

Sources: Map (Dec. 18, 2001), city limits, planning areas, coastal zones, Carmel Valley Master Plan Area & scenic viewsheds - Monterey County ERP/GIS. Roads - Monterey County IT/GIS.

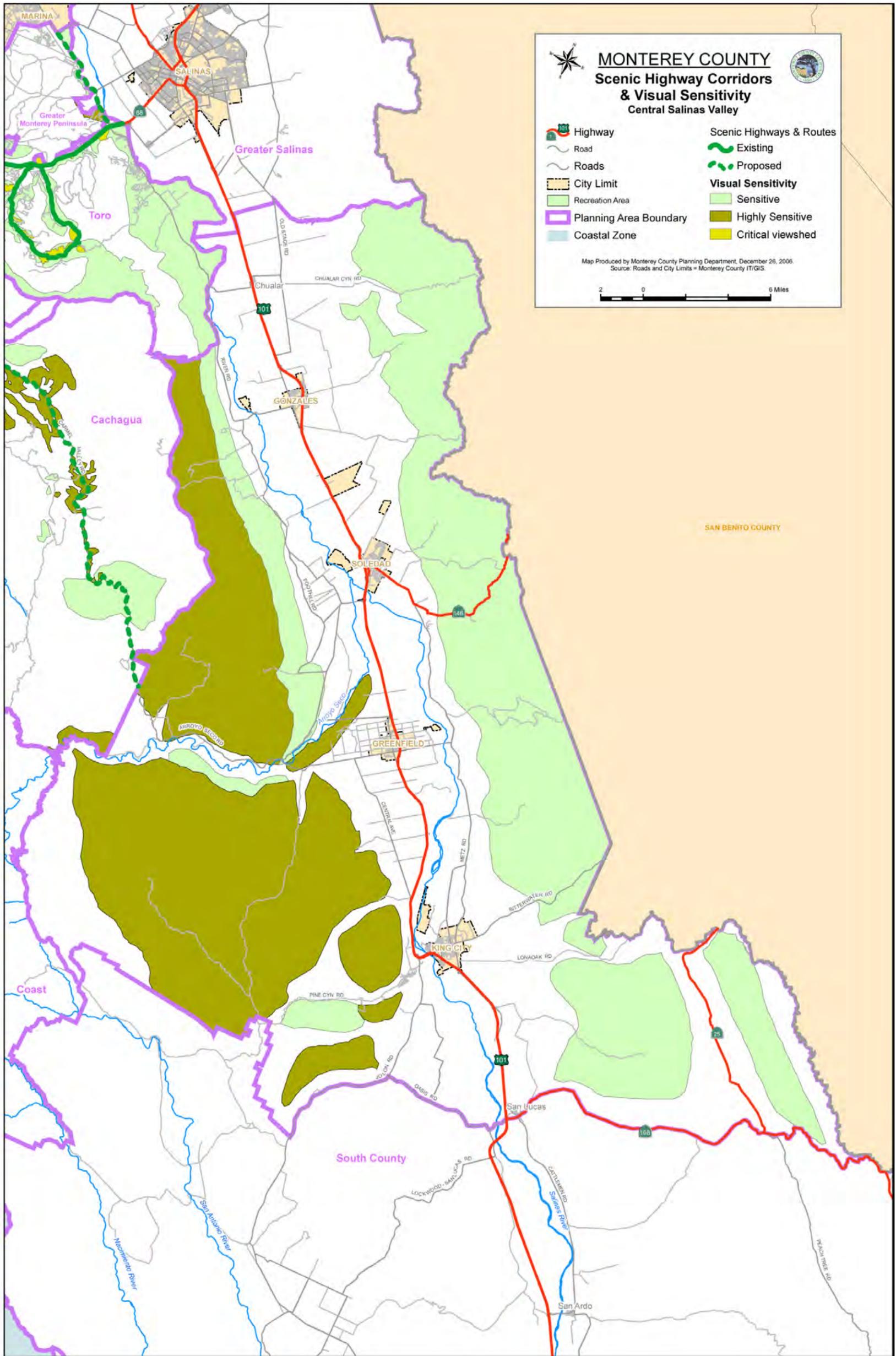
Source: Monterey County 2004 General Plan Update Draft EIR.



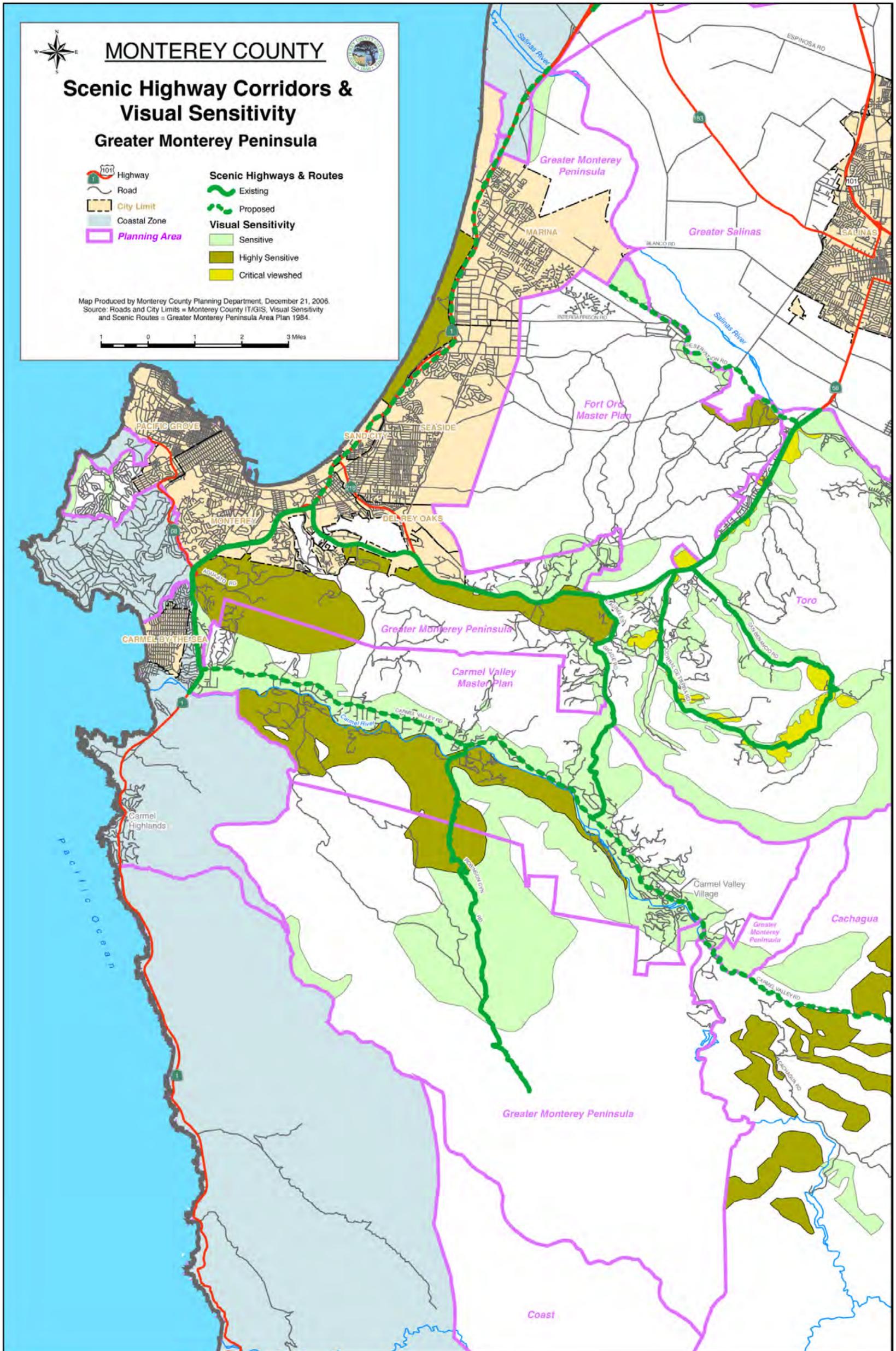
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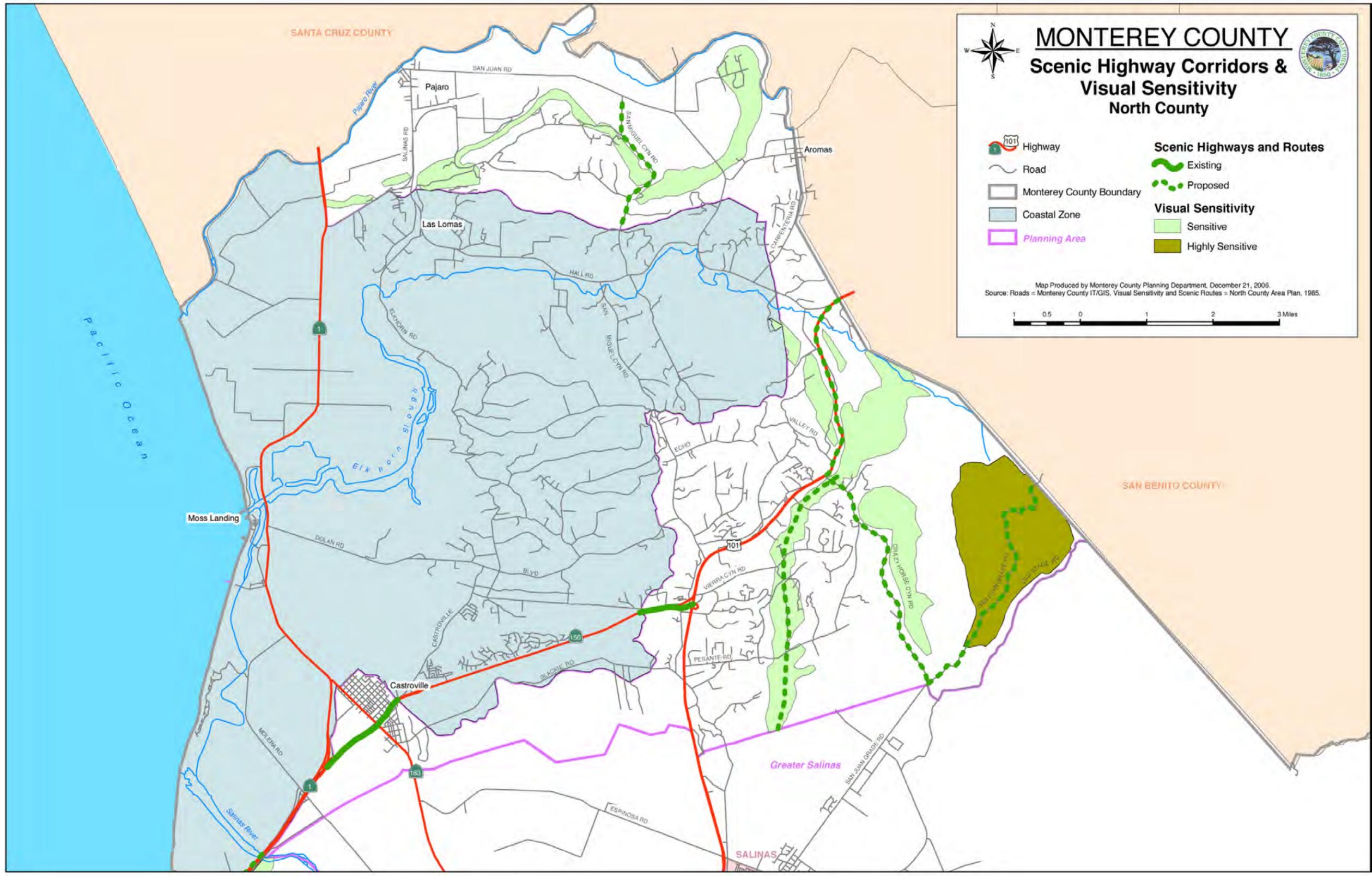


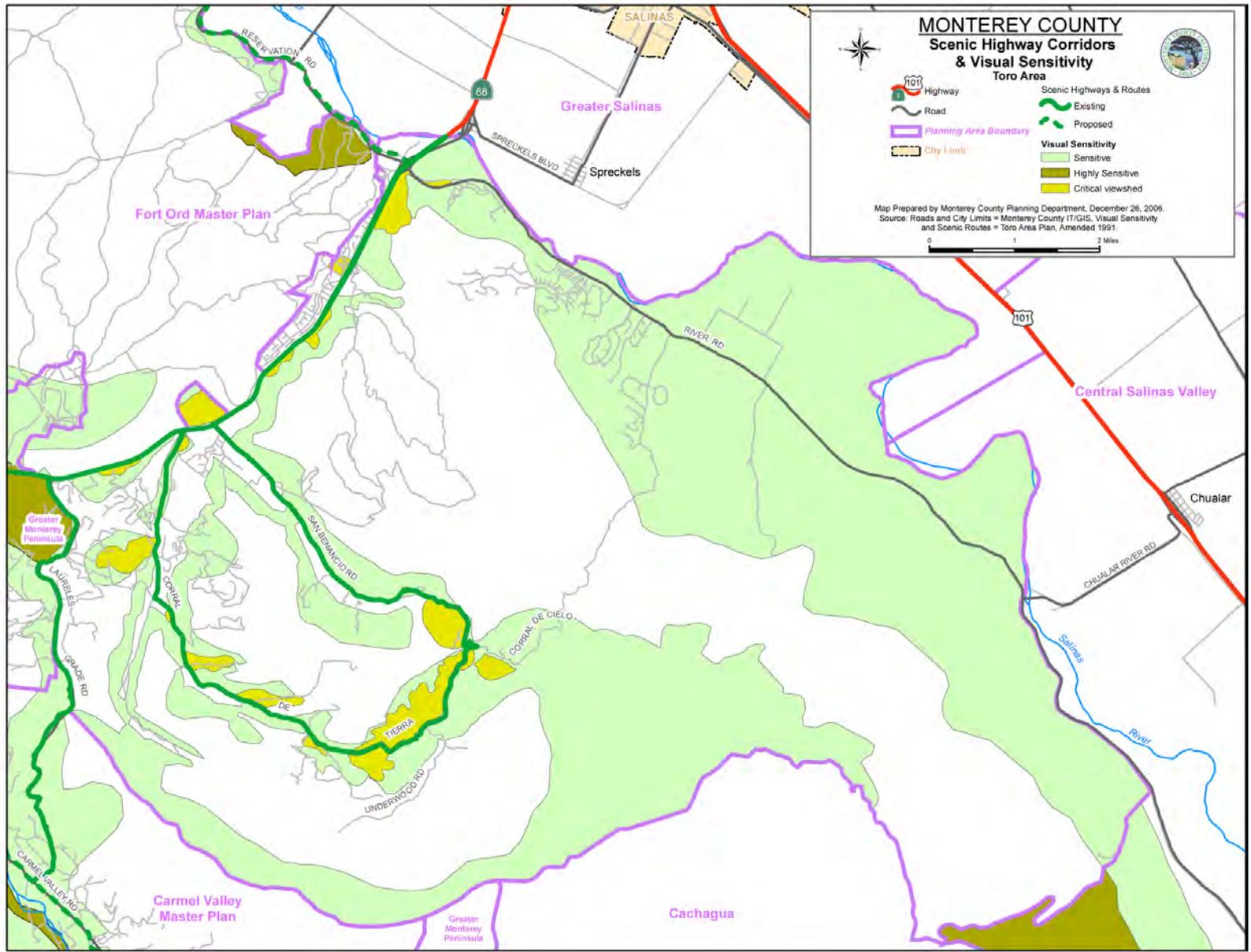
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4.15 Population and Housing

4.15.1 Abstract

Like most of California, Monterey County has increased in population over the past several decades. The 2000 U.S. Census reported that there were 401,762 persons in the County as of January 1, 2000. In its 2004 regional forecast, the Association of Monterey Bay Area Governments (AMBAG) estimates the County's overall population to be 432,600 as of 2005. (Association of Monterey Bay Area Governments 2004.) The unincorporated areas of the County account for approximately a quarter of that figure, while the cities account for the remaining three quarters. For the last several decades, the percentage of population residing in the unincorporated areas of the County has decreased in comparison to the population of the total County. Population projections for the Monterey Bay Area region forecast the unincorporated area of Monterey County sustaining the same historical level of growth. The County's five largest unincorporated communities are Prunedale, Castroville, Carmel Valley, Del Monte Forest, and Pajaro.

The 2007 General Plan is, by statutory requirement, growth inducing. It will have a significant and unavoidable impact on growth during both the 2030 planning horizon and 2092 full buildout. All potential population and housing impacts related to the displacement of housing units or people from development and land use activities contemplated by the 2007 General Plan would be less than significant and therefore would not require mitigation.

4.15.2 Existing Conditions

4.15.2.1 Population

Over the past several decades, Monterey County has seen a steady, if sometimes uneven, increase in population. Changes in the economy such as the closure of Fort Ord, the housing cost run-up and subsequent lending collapse, and the growing reuse of the former Fort Ord contribute to the ups and downs that mark the progress of Monterey County's growth. In the three decades between 1970 and 2000, the County's total population increased from 247,450 to 401,762 persons, a change of just over 62%. The decade with the largest percentage population growth was 1980–1990, when the population increased by 22%. Table 4.15-1 provides a graphical representation of population growth in Monterey County between 1970 and 2000.

Estimates of the County's existing population and future growth vary as statisticians attempt to correct for current downward trends in the economy. For example: AMBAG's 2004 regional forecast estimated the County's total 2005

population to be 432,600. (Association of Monterey Bay Area Governments 2004.) In December 2007, the California Department of Finance provisionally estimated the County's population to be 425,356 (7,244 residents less than the 2004 AMBAG estimate for 2005), as of July 1, 2007. (California Department of Finance 2007); and the AMBAG 2008 regional forecast estimated the County's population to be 422,632 (9,968 residents less than the 2004 AMBAG estimate) (Association of Monterey Bay Area Governments 2008b). The actual population is somewhere between these numbers.

As just noted, AMBAG has adopted a new regional forecast for growth to 2035, including projected growth for Monterey County. The 2008 regional forecast estimates the County's total 2005 population to have been 422,632 persons, 106,117 of whom lived in the unincorporated area. The 2008 forecast forecasts the County's 2030 population to be 515,549 persons; 113,628 of whom would live in the unincorporated area. (Association of Monterey Bay Area Governments 2008b)

For the purposes of this EIR, we will utilize AMBAG's 2004 population projections. There are several good reasons for doing so. First, AMBAG's 2004 projection forms the basis for the regionally approved traffic model. Using these projections provides consistency between population and traffic assumptions. Second, the adopted Housing Element of the Monterey County General Plan is based on the 2004 population projections. Using the same projections retains internal consistency between the elements of the General Plan. Third, the 2004 AMBAG projections are somewhat higher than those of both the California Department of Finance and AMBAG's 2008 projections. Using the higher projections for purposes of CEQA analysis leads to more conservative results. In other words, it may lead to overestimating the potential impacts. That is preferable to underestimating impacts. Last, the 2008 Air Quality Management Plan is based on the 2004 AMBAG projections. Using the same projections provides consistency between population and air quality assumptions.

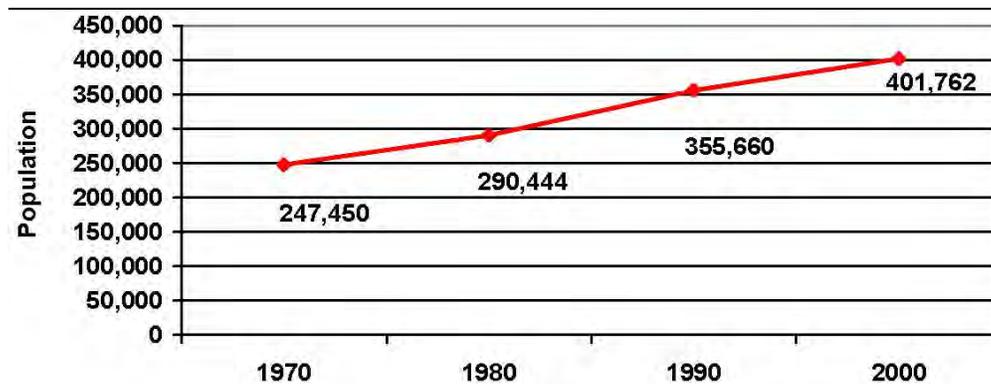
Utilizing the 2004 AMBAG projections does not commit the County to that level of growth. Projections do not limit or expand the policies established in the General Plan. As the differing projections illustrate, growth is the result of a variety of factors acting on the policy landscape created by the General Plan.

The 2004 AMBAG projections have been adjusted to provide an estimate for county population in 2006. This adjusted estimate of 2006 population, housing, and employment accounts for city annexations expected to occur between 2000 and 2030. In other words, areas expected to be annexed to the cities are shifted to the city's populations. A similar shift is made in the traffic model to ensure that the Traffic Analysis Zones (TAZs) reflect the correct jurisdiction.

Population estimates for the unincorporated county and incorporated cities for the past 25 years are summarized in Table 4.15-2. Overall, the County's total population increased by about 46% between 1980 and 2005, with most of that growth occurring in incorporated cities. In real numbers, the unincorporated

population increased by about 24,183 persons while the incorporated population grew by about 111,917 persons.

Table 4.15-1. County of Monterey Population 1970–2000



Source: U.S. Census Bureau 1970, 1980, 1990, 2000.

Table 4.15-2. Population Summary (1980–2005)

Jurisdiction	1980	1990	2000	2005	% Change (1980–2007)
Unincorporated Monterey County	85,900	100,461	105,673	110,083	28%
Incorporated Cities	210,600	255,199	293,631	322,517	53%
County Total	296,500	355,660	399,304	432,600	46%

Source: California Department of Finance 2005; Association of Monterey Bay Area Governments 2004.

For the last several decades, the percentage of population residing in the unincorporated areas of the County has decreased in comparison to the population of the County as a whole. In 1980, population in the unincorporated areas represented about 29% of the total countywide population. By 2000, that percentage had decreased to 25% of total countywide population. This indicates that the incorporated areas of the County are growing at a somewhat faster rate than the unincorporated areas. Table 4.15-3 shows the change in Monterey County’s unincorporated population between 1980 and 2007.

Table 4.15-3. County of Monterey: Unincorporated Population as a Percentage of Total Population

	Total County Population (Incorporated and Unincorporated Areas)	Unincorporated Area Population	Unincorporated Population as a Percentage of Total County Population
1980	290,444	84,497	29%
1990	355,660	100,479	28%
2000	401,762	100,258	25%
2005	432,600	110,083	25%

Sources: U.S. Census Bureau 1980, 1990 and 2000; Association of Monterey Bay Area Governments 2004.

According to the 2000 U.S. Census, the most recently available count, approximately 49% (49,528 persons) of the County's unincorporated population resided in an unincorporated community, such as those listed in the table below. The largest of these communities is Prunedale, which had 16,432 residents in 2000. Table 4.15-4 lists the unincorporated communities by population in 2000.

Table 4.15-4. Population Distribution in Unincorporated Areas (2000)

Community	Population	Community	Population
Prunedale	16,432	Chualar	1,444
Castroville	6,742	Boronda	1,325
Carmel Valley Village	4,700	San Ardo	501
Del Monte Forrest	4,531	Spreckels	485
Pajaro	3,384	San Lucas	419
Las Lomas	3,078	Moss Landing	300
Aromas	2,797	Bradley	120
Toro Canyon	1,697	Remaining Unincorporated	50,730
Elkhorn	1,591	Total	100,258

Source: U.S. Census Bureau 2000.

Between 1970 and 2000, the County experienced a 62.3% increase in population. Annual growth averaged 1.7% during the 1970s; 2.2% during the 1980s; and 1.7% during the 1990s. Based on population growth forecasts issued by AMBAG, population growth in the total County and the unincorporated areas of the County is expected to sustain the same level of growth. (Association of Monterey Bay Area Governments 2004.)

Forecasted Population Growth

AMBAG is the designated Metropolitan Planning Agency for Monterey, Santa Cruz, and San Benito Counties. As such, it is responsible for establishing housing needs projections for these counties, as well as preparing the regional transportation plans. In conjunction with this work, AMBAG's *2004 Population, Housing Unit and Employment Forecasts* projects growth for the cities and the unincorporated area within each county. AMBAG has projected growth in Monterey County through 2030 in five-year increments, considering housing permits, the availability of water, and other factors, and allocated its growth projections accordingly. Thus, the Monterey Peninsula, which has significant water constraints, is projected to accommodate much lower levels of growth than the Salinas Valley, which is less constrained in terms of water supply.

For the reasons discussed above, this EIR will rely upon the 2004 AMBAG projections. Between 2000 and 2030, AMBAG projects that Monterey County will grow to a population of approximately 602,731, which translates to an average annual growth rate of 1.36%. AMBAG anticipates that the proportion of Monterey County residents living in the unincorporated areas of Monterey County will decrease between 2005 and 2010 because of future annexations to the cities. AMBAG projections are summarized below.

Table 4.15-5. AMBAG Growth Projections

Year	Monterey County Population	Change From Previous	Unincorporated County Population	Change From Previous
2000	401,312	–	100,252	–
2005	432,600	7.8%	110,803	9.8%
2010	464,847	7.5%	105,485	-4.2%
2015	495,961	6.7%	114,776	8.8%
2020	527,069	6.3%	124,067	8.1%
2025	564,903	7.2%	129,721	4.6%
2030	602,731	6.7%	135,375	4.4%

Source: Association of Monterey Bay Area Governments 2004.

Housing

Housing unit estimates for the unincorporated county and incorporated cities from 1990 to 2006 are summarized in Table 4.15-6. The 1990 and 2000 numbers reflect U.S. Census returns for those years; the 2006 number is the AMBAG estimate for the year 2005, with an additional year of development extrapolated. The County's housing stock increased by approximately 12.5% between 1990 and 2006. The estimated number of dwellings in the unincorporated area of the

County increased by about 4,313 units during that period. The number of dwellings in the incorporated cities increased by about 14,638 units during that period.

Table 4.15-6. Housing Summary (1990–2006)

Jurisdiction	1990	2000	2006	% Change (1990–2006)
Unincorporated Monterey County	34,342	37,139	38,655	12.5%
Incorporated Cities	86,882	94,569	101,520	16.8%
County Total	121,224	131,708	140,175	15.6%

Source: U.S. Census Bureau 1990, 2000; Association of Monterey Bay Area Governments 2004.

Annual Housing Report

The Monterey County Redevelopment and Housing Office annually prepares a report on housing demand, availability, and recommended strategies for meeting housing needs. The *Annual Housing Report 2008* found that in 2007 Monterey County as a whole was the second least affordable county in California (County of Monterey 2008). Current market conditions have depressed prices, and there are approved projects that are being delayed due to these conditions. Nonetheless, the relatively high prices and low supply, combined with the current credit crisis, mean that families and first-time buyers are having trouble entering the housing market.

In addition, the report found that Monterey County has a severe lack of multi-family rental housing (the 2007 vacancy rate was about 3%), and the need for affordable rental housing continues to increase. Very little rental housing has been built in the county, with only 37 units constructed in the unincorporated area in 2007. There is a lack of land in the unincorporated area that is zoned for higher density housing, so the cities have provided most of this supply.

Further, the increasing demand for special needs housing is outpacing the ability of non-profits to build new units. Farm workers, many of which are undocumented, often live in crowded, sub-standard housing conditions. The 2000 survey of agricultural workers reported in the 2001 *Farmworker Housing and Health Assessment Study of the Salinas and Pajaro Valleys* prepared for Monterey and Santa Cruz Counties (Applied Survey Research 2001) found that at that time, the median worker was spending at least 40% of their income on housing (30% is considered acceptable) that could not meet Housing and Urban Development Department quality standards. In addition, the average of 5.4 persons per household was about 50% higher than the average in the general population in the Salinas and Pajaro Valleys (Applied Survey Research 2001). The tight market, particularly in rental housing, only exacerbates the problems found in 2000.

In response, the county's housing strategy for 2008 will shift from simply encouraging housing programs and planning for additional housing, to producing actual housing units of the right type in the right place to serve identified needs. Ongoing planning activities include the East Garrison I project on the former Fort Ord, where the first phase of 414 residential units has been initiated. 30% of the residences in this phase will be affordable to households in the very low, low, moderate, and workforce income categories. Monterey County will continue work on the Castroville Community Plan by completing the process of amending the Local Coastal Program (LCP) for those areas within the Coastal Zone and programs to encourage planned development (the proposed LCP amendment is currently undergoing consideration by the Coastal Commission). The County will also continue the process of drafting the Boronda Community Plan.

New strategies for 2008 will include working with local employers to increase the supply of farmworker housing; working with housing developers, housing advocacy groups, and service providers to create affordable housing for special needs groups, including the disabled and mentally ill; and exploring the use of "green" building practices that would benefit low- and moderate-income households (County of Monterey 2008).

Regional Housing Needs Allocation

Pursuant to California planning law, each city and county's general plan must contain a housing element. The purpose of the housing element is to identify the potential need for housing among all segments of the population and to make provisions to accommodate that housing need over a five-year planning period. Each jurisdiction's housing need is determined through an allocation process undertaken by the regional Council of Governments, based on population and housing projections provided by the California Department of Housing and Community Development (HCD) from Department of Finance data. The city or county is required to amend its housing element in response to the new housing need allocations. The amended housing element must be submitted to HCD for review and certification.

In Monterey County, AMBAG prepares the Regional Housing Need Allocation (RHNA) for the local jurisdictions within Monterey and Santa Cruz Counties. This allocation is based on population growth forecasts, economic characteristics, and ability to accommodate growth. Each of these factors is considered and each jurisdiction is ultimately assigned a "fair share" allocation of the region's projected growth: a target number of new dwelling units to be provided by for all income levels (very-low, low, moderate, and above-moderate).

During 2001–2002, AMBAG developed the 2000–2007 RHNA and, in the fall of 2002, the AMBAG Board of Directors certified the final numbers. The estimated number of housing units needed as determined and certified by AMBAG reflect the planning period from January 1, 2000 to June 30, 2007. State legislation was adopted in 2003 extending the planning period for AMBAG communities to June 30, 2008. Therefore, the planning period used in the adopted Housing Element is

from January 1, 2000 through June 30, 2008, consistent with the AMBAG estimates.

After review by the County and cities, AMBAG adopted the 2007–2014 RHNA, with revisions, on April 12, 2008. On January 4, 2008, HCD had provided AMBAG with a revised Regional Housing Need Determination letter based on the enactment of Assembly Bill 1259. This legislation extended the regional planning period by one year. Accordingly, the new determination letter established 2007 to 2014 as the effective RHNA planning period. The new determination from HCD also reduced the regional housing need by approximately 40%, reflecting the Department of Finance’s lowered population forecasts for Monterey County. AMBAG’s 2007–2014 RHNA reflects both the Department of Finance’s lowered population forecasts for Monterey County and a proportional allocation of an additional year of housing needs. Pursuant to Housing Element Law, the County will have until June 30, 2009 to update their housing element.

The 2007–2014 RHNA allocates 1,554 total dwelling units to unincorporated Monterey County. The number of dwelling units by income level is summarized in Table 4.15-7.

Table 4.15-7. Monterey County (Unincorporated) Dwelling Unit Allocation

Household Income Level	Dwelling Units
Very Low (< \$88,440 year)	342
Low (\$88,441 - \$123,817)	264
Moderate (\$123,818 - \$227,000)	295
Above-Moderate (> \$227,000)	653
Total	1,554

Source: Association of Monterey Bay Area Governments 2008.

Between October 1, 2004 and October 1, 2005 a total of 354 new housing units were constructed or were under construction in the unincorporated areas of the County. Of this figure, 250 were building permits for single-family residential units, 26 permits were for mobile home units on permanent foundations, and 78 were permits for multi-family residential units. All of the 78 multi-family units are within projects developed by non-profits with County assistance. As this data indicates, most of the housing being constructed in the County, particularly housing constructed by the private market, continues to be single-family units, most of which is on large lots, typically affordable to only to a small percentage of the existing population.

At the same time, the County has been making a concerted effort to provide smaller lots and multiple-family residences in newer development approvals. For example, the East Garrison Specific Plan described above includes small lot and multi-family components. “The Commons at Rogge Road” project (designated

as a pilot project for the Affordable/Workforce Housing Incentive Program) located east of Salinas includes 171 units on 12.5 acres. The revised Rancho San Juan project approved in 2008 will include 367 high-density residential units on approximately 20 acres. The Castroville Community Plan similarly includes approximately 265 units within areas designated as high- or high mixed-density.

The 2007–2014 RHNA allocates 11,913 total dwelling units to Monterey County and its cities. The number of dwelling units by income level is summarized in Table 4.15-8.

Table 4.15-8. Monterey County Dwelling Unit Allocations

Jurisdiction	Income Category				
	Revised Allocation	Very Low	Low	Moderate	Above Moderate
Carmel	32	7	5	6	14
Del Rey Oaks	150	33	26	29	63
Gonzales	689	151	117	131	289
Greenfield	538	118	91	102	226
King City	571	126	97	108	240
Marina	1,913	421	325	363	803
Monterey	657	145	112	125	276
Pacific Grove	120	26	20	23	50
Salinas	4,077	897	693	775	1,712
Sand City	120	26	20	23	50
Seaside	598	131	102	114	251
Soledad	897	197	152	170	377
Unincorporated County	1,554	342	264	295	653
Total	11,913	2,621	2,025	2,264	5,004

Source: Association of Monterey Bay Area Governments 2008.

Monterey County General Plan Housing Element (2003)

Monterey County adopted its current 2002–2008 Housing Element on November 4, 2003, in accordance with the State requirement that each local jurisdiction update its housing element every five years. The next edition of the County Housing Element is due to HCD by June 30, 2009 for review. It will reflect the allocations set out in the 2007–2014 RHNA for that seven-year time frame. The 2007 General Plan does not include revisions to the County’s current Housing Element. Those will be drafted and adopted separately.

The 2003 Housing Element establishes the County's housing strategy for providing a range of housing types, as identified by AMBAG's 2000–2007 RHNA Plan. As of January 1, 2003, the County needed to produce 2,630 new dwelling units in the unincorporated area. The Housing Element shows an adjusted number of 2,511 units to account for units approved between the adoption of the 2000–2007 RHNA and the Housing Element. The 2003 Housing Element used the existing 1982 General Plan land use map as the basis for identifying potential housing opportunities. The Housing Element focuses on compact development within existing areas of development or adjoining existing development. These areas will be within community area plans that will provide the policy basis for compact development and the delivery of needed services. The most recent Annual Implementation Report for the Housing Element prepared by the Monterey County Resource Management Agency Office of Housing and Redevelopment (approved February 6, 2007) indicates that the County has made progress toward meeting the dwelling unit allocation targets.

The 2007–2014 RHNA numbers anticipate a need to produce substantially less housing within the unincorporated area of the county in the period between 2007 and 2014 than was allocated for the 2000–2007 period. This reflects the lowered population estimates and growth rates projected by both the California Department of Finance and AMBAG. The 2007 General Plan will provide for concentrations of growth in the Community Areas and Rural Centers. These are anticipated to meet the needs allocated by the 2007–2014 RHNA.

4.15.3 Regulatory Framework

4.15.3.1 California Housing Element Requirements

The Housing Element is one of seven elements required to be included in the County's General Plan. State law specifies that the Housing Element must assess housing needs and evaluate the current housing market in the County and then identify programs that will meet housing needs during a five-year planning period. The housing market evaluation includes a review of housing stock characteristics as well as housing cost, household incomes, special need households, availability of land and infrastructure, governmental constraints to housing production, and various other factors. In addition to this information, the Housing Element must evaluate and review its past housing programs and consider this review in planning future housing strategies. (Government Code Section 65580 et seq.) In addition, the housing element will have to demonstrate that sufficient areas in the county are zoned at high enough densities to accommodate very low- and low-income housing (20 units per acre) and as part of that inventory, demonstrate what can actually be achieved given site constraints such as the availability of infrastructure. (Government Code Section 65583.2) State law provides that housing elements are subject to review by HCD and must be updated every five years. However, in practice the planning period has been routinely extended by state law each time there is insufficient money in the State budget to cover the costs of the regional agencies' housing needs

allocation process. As a result, the housing element is currently based on a seven-year period.

As described above, the housing need to be addressed by the Housing Element comes from the adopted RHNA. Housing Element law does not obligate the County itself to provide the housing identified in the housing need. It does obligate the County to provide opportunities for the private sector to build that housing during the seven-year period.

4.15.3.2 California Relocation Law

California Relocation Law (Health and Safety Code Section 33410 et seq.) requires redevelopment agencies to provide replacement housing at comparable costs to any displaced residents. Pursuant to Health and Safety Code Section 33411.1: “no persons or families of low and moderate income shall be displaced unless and until there is a suitable housing unit available and ready for occupancy by such displaced person or family at rents comparable to those at the time of their displacement. Such housing units shall be suitable to the needs of such displaced persons or families and must be decent, safe, sanitary, and otherwise standard dwelling. The [redevelopment] agency shall not displace such person or family until such housing units are available and ready for occupancy.”

4.15.3.3 Monterey County Housing Element

The Goals and Policies of the adopted Housing Element include policies that address population and housing growth in the unincorporated areas of the County and provide guidance for the balanced growth of population and housing so that it integrates into the existing housing stock and community neighborhoods. As discussed above, the Housing Element accommodates new and rehabilitated housing to meet the County’s current RHNA.

4.15.3.4 Monterey County Inclusionary Housing Program

Monterey County has enacted a program requiring that at least 20% of new homes be price-restricted so that they will be sold or rented at below market rates to qualified households. Qualified households cannot make more than 120% of the median county income (defined as low- or moderate-income) in order to take part in the program.

4.15.4 Project Impacts

4.15.4.1 Methodology

This analysis is based on development pursuant to the 2007 General Plan within the 2030 planning horizon and, separately, on full buildout in the year 2092. The buildout analysis is qualitative.

The baseline for analyzing the impacts that may result from adopting an updated general plan is the existing condition, not the existing general plan.

(Environmental Planning and Information Council v. County of El Dorado (1982) 131 Cal.App.3d 354) Therefore, the analysis will examine land use changes resulting from development under the 2007 General Plan over the periods from 2006–2030 and 2006–2092.

4.15.4.2 Thresholds of Significance

The 2007 General Plan would result in a significant impact on population and housing if it would:

- Induce substantial population growth, either directly or indirectly;
- Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere; or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

2092 Impact Discussion

Population Growth

Impact POP-1: Implementation of the 2007 General Plan would induce population growth in unincorporated Monterey County. (Significant Impact.)

2030 Planning Horizon

Impact of Development With Policies

Compared to the baseline of existing conditions, implementation of the 2007 General Plan would create new opportunities for the development of residential, commercial, and industrial land uses. Future growth would be located primarily in the cities and the county's Community Areas, Rural Centers, and Affordable Housing Overlays (AHO). The Community Areas and Rural Centers provide opportunities for residential, commercial, and

industrial development. The AWCP would create new job opportunities at full-scale and artisan wineries and their related activities. These additional growth opportunities would induce growth directly (i.e., through the construction of new dwelling units) or indirectly (i.e., through the creation of new jobs). This is a significant impact.

The 2007 General Plan has a 2030 buildout potential of approximately 10,015 additional dwelling units within the unincorporated area between 2006 and 2030 county. According to AMBAG's projections, this number of units would house an estimated 25,292 residents.

2007 General Plan Policies

The General Plan provisions for development describe the potential for accommodating and managing growth. The 2007 General Plan has numerous policies that are intended to ensure that development occurs with consideration of natural resources limits such as water supply, groundwater, important farmland, and habitat; the availability of services; hazards such as slopes, floodplains, and wildfire; and the concurrent provision of infrastructure to serve development, particularly in the Community Areas and Rural Centers. These policies are described in the impact sections in Chapter 4 of this EIR. The policies act to encourage development in the Community Areas, Rural Centers, and AHOs by providing infrastructure, and discourage development in natural resource areas, hazardous areas, and steep slopes. These policies would reduce potential impacts from growth inducement by setting guidelines for allowable growth within the county's natural thresholds.

The AWCP would allow for the development of 40 artisan wineries, 10 full-scale wineries, and 10 stand-alone tasting rooms on three corridors in the Salinas Valley. No substantial numbers of residences are planned to be built in conjunction with these wineries. However, the AWCP designation would allow a single-family residence, a guest house, and up to three employee residences at each winery, which would reduce the potential impacts from growth inducement in the AWCP area. In comparison, the County's zoning ordinance allows up to three residences, one guesthouse, and, with an administrative permit, farm labor housing for up to five families or 12 persons in its "Farmlands" zoning district.

Monterey County's HCD-certified Housing Element would accommodate up to 2,511 new dwelling units in the unincorporated area at various income levels over the 2003–2008 planning cycle. Section 3 of the Housing Element identifies a specific need for 821 units for very low income (0–50% of median income), 608 for low income (51–80% of median income), 937 for moderate income (81–120% of median income), and 145 for above moderate income households. The County's 2007–2014 RHNA totals 1,554 dwellings for all income categories. The

2007 General Plan will not hinder the County's next Housing Element revision from meeting this housing need.

Area Plan Policies

The North County Area Plan

Policy NC-1.5 (development on properties with residential land use designations located within the North County Area will be limited to a single new residence on any legal lot of record) would reduce impacts from growth inducement by limiting new development.

Greater Salinas Area Plan Policy GS-1.1 (Butterfly Village Special Treatment Area would permit up to 1,147 residential units for various income levels, with at least 38% of these available at affordable/workforce levels) would reduce impacts from growth inducement by limiting new residential units to be developed in the Butterfly Village Special Treatment Area.

Policy GS-1.13 (development on properties with residential land use designations located within the Greater Salinas Area Plan north of the City generally between Williams Road and Highway 101 will be limited to a single new residence on any legal lot of record) would reduce impacts from growth inducement by limiting new residential development in the area between Williams Road and Highway 101.

Toro Area Plan

Policy T-1.7 (development on properties with residential land use designations located within the Toro Area along the Highway 68 corridor will be limited to a single new residence on any legal lot of record) would reduce impacts from growth inducement by limiting new development.

Significance Determination

The population growth that would occur as a result of development during the 2030 planning horizon would represent a substantial increase over the current population. Since one of the statutory purposes of a general plan is to identify areas of future growth in order to accommodate projected housing needs, this is to be expected.

The 2007 General Plan provides sufficient flexibility in terms of its ability to accommodate growth to allow for the 2003 Housing Element to be implemented without obstruction. In order to provide a reasonable opportunity to obtain the RHNA housing goal, adequate potential area for development of various housing types has been provided in the Community Areas, Rural Centers, and AHOs. The 2007 General Plan maintains the

potential area for development as considered in the 2003 Housing Element, and therefore, would not conflict with its housing objectives.

The 2007 General Plan has a buildout potential of approximately 10,015 additional dwelling units within the unincorporated area of the County between 2006 and the planning horizon. The 2007 General Plan has identified five Community Areas and seven Rural Centers where future growth can be accommodated, with varying levels of development intensity in each place. The 2007 General Plan buildout potential and range of locations that can accommodate growth would ensure that implementation of the 2003 Housing Element would not be jeopardized. In addition, because the 2007 General Plan largely retains the land use designations of the 1982 General Plan (which are the basis of the 2003 Housing Element), there would be no conflicts between the two plans. Potential for residential development in the Community Areas between 2006 and 2030 would include approximately 3,295 dwelling units in Fort Ord, 574 dwellings in Chualar, 259 dwellings in Pajaro, 278 dwellings in Boronda, and 625 dwellings in Castroville. The Rural Centers of Pine Canyon (652 units), Bradley (306 units), San Ardo (184 units), and River Road (149) would provide the greatest numbers of residential units among the Rural Centers.

The AHO designations would authorize increased densities, up to 30 dwelling units per acre where services are available, for qualifying projects. If developed at full potential (30 units per acre), the Mid-Valley AHO would accommodate 149 residential units on approximately 13 acres; the Highway 69/ Reservation Road AHO would accommodate 356 residential units on approximately 31 acres; and the Highway 68/Airport AHO would accommodate 976 residential units on approximately 85 acres. An AHO project would generally be required to provide affordable units as follows: 10% very low; 15% low; 15% moderate; 20% workforce I; and 40% workforce II housing. Therefore, the 1,481 high-density residential units authorized within three AHOs under ideal circumstances would result in approximately 148 new very low-income units, 222 low-income units, 222 moderate-income units, 296 workforce I units, and 592 workforce II residential units. Depending upon property owners' desires, AHO designations would also apply in Community Areas prior to adoption of a Community Plan and in Rural Centers prior to adoption of an Infrastructure and Financing Study.

AWCP-related development would not result in substantial population growth. A full scale winery can be expected, on average, to employ 25 people full time and approximately 25 people part-time during peak operations during September/October. An artisan winery would employ 12 people full-time and another 4 people part-time during peak operations. (County of Monterey 2004.) ACWP winery employment would be approximately 730 full-time employees, with a peak seasonal employment of approximately 1,140 (730 full-time and 410 seasonal) employees. Assuming three or four wineries are built and opened each year over the planning period, about 12 to 16 full-time residential units would be added to the

county housing stock annually. By the 2030 planning horizon, this would result in a total of 50 full-time residences, 50 part-time guest residences, and up to 150 employee residences spread across the AWCP area. The employee residences would help to meet the county's need for workforce housing.

Assuming that each job reflects a housing unit, this would be a total housing demand for 1,140 dwellings over the planning period. Given that the typical family is supported by more than one worker (some of the full time and seasonal workers may share the same residence), and that a substantial proportion of the winery workers can be expected to be hired from existing residents (who presumably occupy existing residences), the new housing demand from winery build-out can be expected to be substantially less than 1,140 units. Although this reflects the growth of the wine industry, it does not create a growth inducing impact beyond that embodied in the 2007 General Plan as a whole.

The AWCP workforce housing would be accommodated within the cities, Community Areas, and Rural Communities. As illustrated by the 2007–2014 RHNA numbers, the Salinas Valley cities are expected to accommodate sufficient affordable housing opportunities for approximately 2,639 total residential units in the very low-, low-income categories and 1,286 residential units in the moderate-income category by 2014 (Association of Monterey Bay Area Governments 2008b). This covers only a portion of the 2007 General Plan planning period, and more housing is expected to be brought on in the period from 2014 to 2030. Therefore, sufficient housing would be available to satisfy the needs of the ACWP workers.

Mitigation Measures

California Planning Law requires a general plan to provide housing opportunities to meet the projected demand of all income levels. Therefore, a general plan must be growth-inducing in order to comply with California statutes. As discussed in detail in this EIR, the 2007 General Plan has numerous policies that will channel most new growth into the Community Areas, Rural Centers, and AHOs, as well as the incorporated cities. These will not, however, stop growth. The County has no authority to prohibit in-migration, prohibit development on legal lots, or to limit natural population increases. As a result, there is no mitigation that would avoid growth.

Significance Conclusion

The 2007 General Plan will result in substantial growth during the 2030 planning horizon. This will be a significant and unavoidable impact.

Buildout

Impact of Development With Policies

Ultimately, the 2007 General Plan would accommodate up to 74,573 dwelling units by 2092 if all available parcels were developed as currently designated. Whether buildout would actually reach this level and when depends upon the availability of urban services within the Community Areas and Rural Centers, as well as economic factors such as the cost of development, viability of the housing market, availability of financing, and others. Given the limitations of water supply (including extending domestic supply to scattered residences), access, and sewer service, this level of buildout is unlikely. Because buildout would occur about 85 years from now, at the current growth rate and assuming that sufficient services were made available, its impacts are too remote and speculative to discuss further. 85 years is beyond the planning horizon and no reasonable assumptions can be made with regard to future impacts.

2007 General Plan Policies

The policies of the 2007 General Plan would have a similar effect on the buildout as on the 2030 planning horizon. Assuming that policies are the same or more restrictive over time, the policies in effect by 2092 will reflect the same concerns as the 2007 General Plan policies.

Significance Determination

The number of dwellings in unincorporated Monterey County at buildout (estimated at 74,573) would be nearly double the number existing in 2005 (estimated at 38,665 units). The 2007 General Plan would encourage substantial growth over existing levels. Of course, this growth would occur over a long period of time and there may be occurrences of unknown severity that act to limit it (i.e., water supply availability, sea water intrusion into aquifers, sea level rise flooding existing development along the coast, etc.). But, what can be foreseen is that growth will continue.

Mitigation Measures

Assuming that land use law and Constitutional requirements are similar to those in effect today, there would be no feasible means of avoiding growth.

Significance Conclusion

Buildout would result in significant, unavoidable impacts.

Housing Displacement

Impact POP-2: Buildout of the 2007 General Plan would result in the displacement of existing housing units, necessitating the construction of new housing elsewhere. (Less Than Significant Impact.)

2030 Planning Horizon

Impact of Development with Policies

The 2007 General Plan Land Use Element emphasizes compact city-centered growth and discourages the encroachment of urban uses into undeveloped areas. Approximately 31.4% of the population growth in the unincorporated county contemplated by the 2007 General Plan would occur in the five Community Areas, all of which contain existing dwelling units. The Boronda, Castroville, Fort Ord, and Pajaro Community Areas are located in county redevelopment areas. Future growth in these Community Areas is anticipated to include redevelopment of underutilized properties within the redevelopment area as well as urbanization of existing, vacant, agricultural land adjoining the existing urbanized communities. Future growth in the Chualar Community Area would primarily occur on agricultural land, thereby limiting the possibility that existing dwelling units would be displaced by 2007 General Plan buildout activities. Finally, future growth in the Rural Centers at higher densities would result in some level of displacement of low-density dwelling units, depending upon the market.

2007 General Plan Policies

The 2007 General Plan and Area Plan policies summarized below set forth comprehensive measures to avoid and minimize adverse impacts on existing housing to the maximum extent practicable.

Housing Element

Several policies in the adopted Housing Element provide guidelines for the preservation, rehabilitation and conversion of the existing housing stock.

Policies H-1.1(intensification of already developed areas), H-1.2 (rehabilitation assistance with unincorporated areas) and H-1.3 (replacement of housing) of the adopted Housing Element help maintain the existing number of affordable units through preservation, rehabilitation, or replacement. These policies would reduce impacts from displacement of existing housing by making more effective use of already developed areas through redevelopment and intensification of residential areas, conversion of commercial and other land uses to mixed-use development, and rehabilitation of existing housing stock. As discussed above, the Housing Element is required to identify sites for housing all

segments of the population. Beyond that, it must also provide a regulatory process that allows the construction of very low-, low-, and moderate-income housing to meet the County's assigned RHNA. The County Redevelopment and Housing Office has numerous programs that assist very low-, low-, and moderate-income households in obtaining quality housing. (County of Monterey 2008.)

Land Use Element

Policy LU-2.12 (AHO program) describes the AHO designations that would result in substantial new affordable dwelling units being available during the 2030 planning horizon.

Policy LU-2.13 (County must establish a program for retaining affordable housing units within redevelopment project areas (Boronda, Castroville, Fort Ord, and Pajaro are specifically listed), as well as Community Areas and Rural Centers prior to adoption of their plans and AHOs) sets out specific requirements for long-term affordability of rental and owner-occupied units that would be made available under the program. The policy would reduce potential impacts from existing housing displacement by encouraging the retention of existing affordable housing units.

Policy LU-2.14 (Affordable Housing Ordinance make 25% of all new housing units affordable to very low-, low-, moderate-, and workforce-income households) establishes the specific percentages to be provided for each type of affordable unit. This policy would effectively ensure that a portion of low- or moderate-income housing that would be lost if its site was developed for above-moderate income housing would be replaced and would reduce potential displacement impacts for persons or families who must be relocated.

California Relocation Law

Any redevelopment activities undertaken by the County of Monterey that result in the displacement of housing, such as might occur in the Boronda, Castroville, and Pajaro Community Areas, would be subject to the California Relocation Law. This would require replacement housing to be made available at comparable costs to any displaced residents. The redevelopment agency is not allowed to displace a person or family until the replacement housing units are available and ready for occupancy. This law reduces displacement impacts for persons or families who must be relocated due to new development.

Inclusionary Housing Program

Monterey County's existing inclusionary housing program requires that at least 20% of new homes be price-restricted so that they will be sold or rented at below market rates to qualified households. The inclusionary housing program would effectively replace a portion of low- or moderate-income housing that would be lost if its site was developed for above-moderate income housing and would reduce potential displacement impacts for persons or families who must be relocated.

Significance Determination

The potential for buildout of the 2007 General Plan displacing substantial numbers of dwelling units is extremely low. While County-directed redevelopment activities would displace existing housing in some situations, they would be required to comply with 2007 General Plan policies LU-2.13 and LU-2.14, as well as California Relocation Law requirements, that would mitigate those impacts by retaining affordable units where possible and requiring comparably-priced replacement units for any dwelling units that are removed. Under these policies, displacement of existing dwelling units would be offset to some extent by the creation of new dwelling units by redevelopment activities.

In areas that are not subject to redevelopment, the Housing Element policies and Policy LU-2.12 discussed above would promote the preservation of existing housing whenever practicable, as well as the provision of substantial amounts of high-density housing in the AHOs, Community Areas, and Rural Centers. High-density housing tends to be more affordable than single-family residences on large lots. In addition, the County's existing Inclusionary Housing Program and the assistance programs of the Redevelopment and Housing Office facilitate the construction and rehabilitation of housing stock to be made available to very low-, low-, and moderate-income households.

Mitigation Measures

No mitigation is necessary.

Significance Conclusion

The 2007 General Plan's policies, in concert with existing state and county laws would ensure that displacement of existing housing as a result of new development will be minimized. In turn, this will minimize the need to build replacement housing. Displacement of housing as a result of 2007 General Plan buildout would be a less than significant impact.

Buildout

Impact of Development with Policies

Ultimately, the 2007 General Plan would result in the buildout of all the AHOs (at least to the extent that landowners choose to take advantage of the opportunities for increased density), Community Areas, and Rural Centers. Assuming that the California Relocation Law and the 2007 General Plan policies described above remain in effect, replacement housing available at comparable prices will be constructed as part of the buildout.

2007 General Plan Policies

The policies of the 2007 General Plan and requirements of state law would have a similar effect on the buildout as on the 2030 planning horizon. Assuming that policies remain the same or become more restrictive over time, the policies in effect by 2092 will offer at least the same level of protection from displacement as the 2007 General Plan policies.

Significance Determination Existing and proposed policies and regulations would avoid significant effects resulting from housing displacement by minimizing such displacement and providing comparable replacement housing when displacement does occur.

Mitigation Measures

No mitigation is necessary.

Significance Conclusion

Buildout would result in less than significant impacts.

Population Displacement

Impact POP-3: Buildout of the 2007 General Plan would result in the displacement of persons, necessitating the construction of new housing elsewhere. (Less Than Significant Impact.)

2030 Planning Horizon

Impact of Development With Policies

As discussed under Impact POP-2, buildout of the 2007 General Plan would result in the displacement of existing dwelling units, particularly in those Community Areas where redevelopment activities would facilitate growth.

2007 General Plan Policies

The policies described under Impact POP-2 apply equally to Impact POP-3.

Significance Determination

Displacement of residents by development and redevelopment activities contemplated by the 2007 General Plan would be mitigated by the availability of vacant dwelling units in Monterey County and the goals and policies of the Housing Element. Policy LU-2.13 requires the County to establish a program for retaining affordable housing units within redevelopment project areas (Boronda, Castroville, Fort Ord, and Pajaro are specifically listed), as well as Community Areas and Rural Centers prior to adoption of their plans and AHOs. Moreover, any development or redevelopment activity that would result in the displacement of persons would be required to comply with California Relocation Law requirements.

Mitigation Measures

No mitigation is necessary.

Significance Conclusion

Potentially significant impacts pertaining to the displacement of residents would be reduced to a level of less than significant through the action of California Relocation Law, and policies of the 2007 General Plan intended to retain affordable dwelling units.

Buildout

Impact of Development With Policies

Ultimately, the 2007 General Plan would result in the buildout of all the AHOs (at least to the extent that landowners choose to take advantage of the opportunities for increased density), Community Areas, and Rural Centers. Assuming that the California Relocation Law and the 2007 General Plan policies described above remain in effect, replacement housing available at comparable prices will be constructed as part of the buildout.

2007 General Plan Policies

The policies of the 2007 General Plan and requirements of state law would have a similar effect on the buildout as on the 2030 planning horizon. Assuming that policies remain the same or become more restrictive over time, the policies in effect by 2092 will offer at least the same level of protection from displacement as the 2007 General Plan policies.

Significance Determination

Existing and proposed policies and regulations would avoid significant effects resulting from housing displacement by minimizing such displacement and providing comparable replacement housing when displacement does occur.

Mitigation Measures

No mitigation is necessary.

Significance Conclusion

Buildout would result in less than significant impacts.

4.16 Climate Change

4.16.1 Abstract

This section describes how development and other activities associated with 2007 General Plan would contribute to global climate change and the effect of climate change on the County.

Many of the policies identified in the 2007 General Plan for land use, circulation, and open space and conservation will help reduce greenhouse gas (GHG) emissions, in particular, Policy OS-10.11, which requires development of a detailed GHG inventory and adoption of a GHG Reduction Plan. Additional mitigation measures are described in this section to further inform the GHG Reduction Plan and to begin to implement reduction strategies. By 2012 the state's regulations will be fully enacted and the 2007 General Plan requires completion of the County's Greenhouse Gas Reduction Plan prior to that time (assuming General Plan adoption at the latest in 2009). At that time, the framework will be in place to achieve substantial GHG emission reductions by 2020 that will be consistent with the overall state goals for reductions called for in AB 32. As the state and the County's efforts proceed to reduce emissions, the County's contribution would be less than considerable in 2020. Mitigation identified in this chapter requires extension of the GHG Reduction Plan to 2030 along with a 2030 reduction goal, which, when enacted will make the County's contribution less than cumulatively considerable for the 2030 planning horizon as well.

For buildout within the County beyond the 2030 planning horizon, not all of the technology has been developed to implement reductions to meet the goals of Executive Order S-3-05, which requires reduction of GHG emissions to levels 80 percent below 1990 levels. Mitigation identified in this chapter requires continuation of the GHG Reduction Plan beyond 2030 as well as adoption of a new General Plan by 2030 that would examine options to focus growth for the period after 2030. These measures would identify feasible means along with state and federal actions that might be able to reduce emissions to 80 percent below 1990 levels, but given that the means to effect such emissions are not known at present, buildout within the County beyond 2030 is determined to make a considerably contribution to cumulative GHG emissions and global climate change.

A certain amount of environmental change is inevitable in Monterey County due to current and unavoidable future increases in GHG emissions worldwide. The extent of such change on a local basis to Monterey County agriculture, water supplies, flooding, natural ecosystems, and environmental health, and other areas is not fully understood at present. Mitigation identified in this section calls for the development and implementation of a Climate Change Preparedness Plan for the County starting within 5 years of adoption of this General Plan. As

adaptation to climate change is more fully integrated into County planning over time, new development will be more resilient to these inevitable changes and would avoid subjecting persons or property to otherwise avoidable additional physical harm.

4.16.2 Introduction

In this chapter, the potential impacts associated with GHG emissions from development under the 2007 General Plan are described at a program level and the impacts of climate change on Monterey County are described at a program level. The impact analysis is quantitative (where data are reasonably available) and qualitative (otherwise) and is not site-specific because of the wide geographical area covered.

4.16.3 Environmental Setting

This environmental setting provides a background on GHG emissions, climate change, and global, California, and County GHG emissions.

4.16.3.1 Greenhouse Gases

Activities such as fossil fuel combustion, deforestation, and other changes in land use result in the accumulation of GHGs such as carbon dioxide (CO₂) in our atmosphere. An increase in GHG emissions results in an increase in the Earth's average surface temperature, which is commonly referred to as *global warming*. Global warming is expected, in turn, to affect weather patterns, average sea level, ocean acidification, chemical reaction rates, precipitation rates, etc., in a manner commonly referred to as *climate change*.

Since the industrial revolution, concentrations of GHGs in the Earth's atmosphere have been gradually increasing. Recently recorded increases in the Earth's average temperature are the result of increased concentrations of GHG in the atmosphere. (Intergovernmental Panel on Climate Change 2007)

The Intergovernmental Panel on Climate Change (IPCC) has been established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC's best estimates are that the average global temperature rise between years 2000 and 2100 could range from 0.6°C (with no increase in GHG emissions above year 2000 levels) to 4.0°C (with substantial increase in GHG emissions) (Intergovernmental Panel on Climate Change 2007). Large increases in global temperatures could have massive deleterious impacts on the natural and human environments.

According to the Federal Environmental Protection Agency (EPA), a GHG is any gas that absorbs infrared radiation in the atmosphere. This absorption traps heat within the atmosphere creating a “greenhouse” effect that is slowly raising global temperatures. GHGs include water vapor, CO₂, methane (CH₄), nitrous oxide (N₂O), halogenated chlorofluorocarbons (HCFCs), ozone (O₃), perfluorinated carbons (PFCs), and hydrofluorocarbons (HFCs). Naturally occurring GHGs include water vapor, CO₂, CH₄, N₂O, and O₃. Many human activities add to the levels of most of these naturally occurring gases. CO₂ is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. N₂O is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. CO₂ and N₂O are the two GHGs released in greatest quantities from mobile sources burning gasoline and diesel fuel. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices and landfills, among other sources.

Sinks of CO₂¹ (which absorb, rather than produce, CO₂), include uptake by vegetation and dissolution into the ocean. Worldwide GHG production greatly exceeds the absorption capacity of natural sinks. As a result, concentrations of GHG in the atmosphere are on the increase. (California Energy Commission 2006)

Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors) and toxic air contaminants (TACs), which are pollutants of regional and local concern.

4.16.3.2 Climate Change Impacts in California

Climate change could impact the natural environment in California in the following ways, among others:

- Rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta due to ocean expansion;
- Extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;
- An increase in heat-related human deaths, infection diseases and a higher risk of respiratory problems caused by deteriorating air quality;
- Reduced snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies;
- Potential increase in the severity of winter storms, affecting peak stream flows and flooding;
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield;

¹ A carbon dioxide sink is a resource that absorbs carbon dioxide from the atmosphere. The classic example of a sink is a forest in which vegetation absorbs carbon dioxide and produces oxygen through photosynthesis.

- Changes in distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

These changes in California's climate and ecosystems are occurring at a time when California's population is expected to increase from 34 million to 59 million by the year 2040 (California Energy Commission [CEC] 2005). As such, the number of people potentially affected by climate change, as well as the amount of anthropogenic GHG emissions is expected to significantly increase. Similar changes as those noted above for California also would occur in other parts of the world, with regional variations in resources affected and vulnerability to adverse effects.

4.16.3.3 Emissions Summary

California Emissions

Worldwide, California is estimated to be the 12th to 16th largest emitter of CO₂ (California Energy Commission 2006) and is responsible for approximately 2 percent of the world's CO₂ emissions (California Energy Commission 2006).

The California Energy Commission's *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004* estimates that California is the second largest emitter of GHG emissions of the United States (only Texas emits more GHG). The CEC estimates that in 2004, California's gross GHG emissions were 492 million metric tons (MMT) of CO₂ equivalent (CO₂E)². The transportation sector produced approximately 41 percent of California's GHG emissions in 2004. Electric power production accounted for approximately 22 percent of emissions (including estimated emissions from out-of-state coal-fired power plants), the industrial sector contributed 21 percent of the total; agriculture and forestry contributed 8 percent, and other sectors contributed 8 percent (California Energy Commission 2006).

Transportation is responsible for 41 percent of the state's GHG emissions, followed by the industrial sector (23%), electricity generation (20%), agriculture and forestry (8%) and other sources (8%). California GHG emissions in 2004 (exclusive of land use changes and forestry) totaled approximately 484 MMT of CO₂E (CARB 2007).

² Greenhouse gas emissions other than carbon dioxide are commonly converted into carbon dioxide equivalents which take into account the differing global warming potential (GWP) of different gases. For example, the IPCC finds that nitrous oxide has a GWP of 310 and methane has a GWP of 21. Thus emission of one ton of nitrous oxide and one ton of methane is represented as the emission of 310 tons of CO₂e and 21 tons of CO₂e respectively. This allows for the summation of different greenhouse gas emissions into a single total.

Monterey County

Existing direct emissions from vehicles and stationary sources in Monterey County are related to various residential, commercial, industrial, institutional and agricultural uses. Indirect emissions result from electricity consumption and landfill activity.

An inventory of current Monterey County GHG emissions was prepared estimated on the basis of estimated vehicle miles traveled, natural gas consumption, electricity use, industrial process activity, landfill activity, and agricultural equipment use and is presented in Table 4.16-1. The methodology for preparation of the current GHG inventory is presented in Appendix B. The inventory methodology for the local government operations is consistent with the California Climate Action Registry (CCAR) General Protocol (CCAR 2008) and The Climate Registry General Protocol (The Climate Registry 2008).

The geographic scope of the inventory was limited to emissions that occur within Monterey County with the exception of indirect emissions related to electricity. Per CCAR protocol, indirect electricity GHG emissions were estimated based on the mix of energy emissions related to PG&E generation sources on a regional basis.

Table 4.16-1. Monterey County Greenhouse Gas Emissions Estimate, 2006

Source	GHG Emissions	% of Total	Notes
Vehicle Emissions	647,175	46%	Includes miles on County roads and 25% of state highway miles.
Natural Gas Consumption	190,848	14%	Residential, commercial, and industrial consumption from PG&E.
Electricity Consumption	209,103	15%	Residential, commercial, and industrial consumption from PG&E.
Industrial Processes	201,290	14%	Based on MBUAPCD inventory data.
Landfill Emissions	32,829	2%	Based on CIWMB data.
Agricultural Equipment Fuel Use	113,159	8%	Based on farm acreage and state averages.
Total	1,394,404	100%	

Source: See Appendix B

The inventory does not include estimates of GHG emissions related to transportation outside the County, such as the transportation of goods to and from the County or tourist traffic when it occurs outside of the County. GHG “lifecycle” emissions are also not included in the inventory, such as the extraction and refining of fuel and the manufacture of vehicles, or the manufacture of construction building materials when they occur outside the county, which are also significant sources of domestic and international GHG emissions.

Comparing Monterey County to California, the 2006 emissions related to unincorporated Monterey County represent approximately 0.3 % of 2004 California emissions (CARB has not yet released a 2006 emissions estimate).

4.16.4 Regulatory Framework

The current regulatory setting related to climate change and GHG emissions is summarized below.

4.16.4.1 Federal Regulations

Twelve U.S. states and cities (including California), in conjunction with several environmental organizations, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHGs as a pollutant pursuant to the Clean Air Act (*Massachusetts vs. Environmental Protection Agency et al.* 549 U.S. 497 (2007)). The court ruled that the plaintiffs had standing to sue, that GHGs fit within the CAA's definition of a pollutant, and that the EPA's reasons for not regulating GHGs were insufficiently grounded in the CAA.

In November 2007 and August 2008, the Ninth Circuit U.S. Court of Appeals ruled that a NEPA document must contain a detailed GHG analysis. (*Center for Biological Diversity v. National Highway Safety Administration* 508 F. 3d 508 (2007) was vacated and replaced by *Center for Biological Diversity v. National Highway Safety Administration* 2008 DJDAR 12954 (August 18, 2008)). Despite the Supreme Court and circuit court rulings, there are no promulgated federal regulations to date limiting GHG emissions.

4.16.4.2 State Regulations

SB 1078/SB 107—Renewable Portfolio Standard (RPS)

Established in 2002 under Senate Bill 1078 and accelerated in 2006 under Senate Bill 107, California's RPS obligates investor-owned utilities (IOUs), energy service providers (ESPs) and community choice aggregators (CCAs) to procure an additional 1% of retail sales per year from eligible renewable sources until 20% is reached, no later than 2010. The California Public Utilities Commission (CPUC) and California Energy Commission (CEC) are jointly responsible for implementing the program.

AB 1493—Greenhouse Gas Emission Standards for Automobiles

California Assembly Bill (AB) 1493 in 2002 required the California Air Resources Board (CARB) to develop and adopt the nation's first GHG emission standards for automobiles. The legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in the state. It cited several risks that California faces from climate change, including reduction in the state's water supply, increased air pollution creation by higher temperatures, harm to agriculture, and increase in wildfires, damage to the coastline, and economic losses caused by higher food, water energy, and insurance prices. Further the legislature stated that technological solutions to reduce GHG emissions would stimulate California economy and provide jobs.

The State of California in 2004 submitted a request for a waiver from federal clean air regulations (as the State is authorized to do under the Clean Air Act) to allow the State to require reduced tailpipe emissions of CO₂. In late 2007, the EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the State brought suit against EPA related to this denial.

A recent CARB study (CARB 2008a) showed that in calendar year 2016, AB 1493 (also referred to as the Pavley standard or the Pavley rules) would reduce California's GHG annual emissions by 16.4 million metric tons (MMT) of carbon dioxide equivalents (CO₂E). This is almost 50% more than the 11.1 MMT reduction produced by currently proposed federal fleet average standards for model years 2011 – 2015.

Further, by 2020, California is committed to implement revised, more stringent GHG emission limits, the Pavley Phase 2 rules (See discussion of scoping plan below). California's requirements would reduce California GHG emissions by 31.7 MMTCO₂E in calendar year 2020, 45 percent more than the 21.9 MMTs reductions under the proposed federal rules in that year. Since the California rules are significantly more effective at reducing GHGs than the federal CAFE (fuel economy) program, they also result in better fuel efficiency – roughly 43 miles per gallon (mpg) in 2020 for the California vehicle fleet as compared to the new CAFE standard of 35 mpg.

Executive Order S-3-05—Greenhouse Gas Emission Reduction Targets

In 2005, Governor Schwarzenegger issued California Executive Order S-3-05 establishing the following GHG emission reduction targets for California:

- reduce GHG emissions to 2000 levels by 2010;
- reduce GHG emissions to 1990 levels by 2020; and
- reduce GHG emissions to 80 percent below 1990 levels by 2050.

Executive Orders are binding only on State agencies. Accordingly, S-3-05 will guide state agencies' efforts to control and regulate GHG emissions, but have no direct binding effect on local efforts.

AB 32—The Global Warming Solutions Act of 2006

California AB 32, the “Global Warming Solutions Act of 2006,” codifies the State’s GHG emissions target by directing the CARB to reduce the State’s global warming emissions to 1990 levels by 2020. CARB regulations are required to begin phasing in by 2012. AB 32 was signed and passed into law by Governor Arnold Schwarzenegger on September 27, 2006. Since that time, CARB, CEC, the Public Utilities Commission, and the Building Standards Commission have all been at work on regulations that will help meet the goals of AB 32 and S-3-05.

Key AB 32 milestones are as follows:

- June 30, 2007—Identification of “discrete early action GHG emissions reduction measures. *This has been completed and is discussed below*
- January 1, 2008—Identification of the 1990 baseline GHG emissions level and approval of a statewide limit equivalent to that level. Adoption of reporting and verification requirements concerning GHG emissions. *This has been completed. In December of 2007, CARB approved the 2020 emission limit of 427 million metric tons of carbon dioxide (CO₂) equivalents (MMT_{CO₂E}) of GHGs.*
- January 1, 2009—Adoption of a scoping plan for achieving GHG emission reductions. *A draft scoping plan was released in June 2008 and is summarized below.*
- January 1, 2010—Adoption and enforcement of regulations to implement the “discrete” actions.
- January 1 1011—Adoption of GHG emission limits and reduction measures by regulation.
- January 1, 2012—GHG emission limits and reduction measures adopted in 2011 become enforceable.

AB 32 Early Actions Adopted in 2007

CARB adopted the following early actions on June 21, 2007:

- Group 1—Three new GHG-only regulations are proposed to meet the narrow legal definition of “discrete early action greenhouse gas reduction measures” in Section 38560.5 of the Health and Safety Code. These include the Governor’s Low Carbon Fuel Standard, reduction of refrigerant losses from motor vehicle air conditioning maintenance, and increased methane capture from landfills. These actions are estimated to reduce GHG emissions

between 13 and 26 MMT of CO₂E) annually by 2020 relative to projected levels. If approved for listing by the Governing Board, these measures will be brought to hearing in the next 12 to 18 months and take legal effect by January 1, 2010.

- Group 2—CARB is initiating work on another 23 GHG emission reduction measures in the 2007-2009 time period, with rulemaking to occur as soon as possible where applicable. These GHG measures relate to the following sectors: agriculture, commercial, education, energy efficiency, fire suppression, forestry, oil and gas, and transportation.
- Group 3—CARB staff has identified 10 conventional air pollution control measures that are scheduled for rulemaking in the 2007-2009 period. These control measures are aimed at criteria and toxic air pollutants, but will have concurrent climate co-benefits through reductions in CO₂ or non-Kyoto pollutants (i.e., diesel particulate matter, other light-absorbing compounds and/or ozone precursors) that contribute to global warming.

In October 2007, CARB expanded the early actions to include the following measures.

- Group 1 Discrete Early Actions—SF₆ reductions from non-electricity sector; reduction of emissions from consumer products; Smartway Truck Efficiency (require existing trucks and trailers to be retrofitted with devices that reduce aerodynamic drag); tire inflation (require tune-up and oil change technicians to ensure proper tire inflation as part of overall service); reduction of PFCs from semiconductor industry; and Green ports (allow docked ships to shut off their auxiliary engines by plugging into shoreside electrical outlets or other technologies).
- Group 2: Other Early Actions—refrigerant tracking, reporting and recovery program; energy efficiency of California cement facilities; blended cements; anti-idling enforcement; and research regarding nitrogen land application efficiency.

AB 32 Draft Scoping Plan

In June 2008, CARB released its Draft Scoping Plan which outlines an approach to meet AB 32's goal and is summarized in Table 4.16-2. The plan identified measures to reduce GHG emissions to 1990 levels which is approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's (2008) levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for person in California down to about 10 tons per person by 2020. Below is a summary of the recommended reduction strategies.

The Proposed Scoping Plan, which will be released in October, 2008, will be based on additional staff modeling and analysis, consideration of public comment on the Draft Plan, recommendations from the advisory committees and other

experts. The Proposed Plan will have a 45-day comment period before CARB considers adoption at its November 2008 meeting. The Scoping Plan, even after Board approval, will remain a plan. The measures in the Scoping Plan must be adopted through the normal rulemaking process, with the necessary public input.

Table 4.16-2. Summary of AB 32 Draft Scoping Plan Recommendations

Recommended Reduction Strategies	Sector	2020 Reductions (MMTCO2E)
The Role of State Government Reduce carbon footprint Set an example	Various	1–2 (under evaluation)
California Cap-and-Trade Program Linked to WCI: Emissions cap of 365 MMTCO2E covering electricity, transportation, residential/commercial and industrial sources by 2020. Shaded reductions below contribute to achieving the cap.		
California Light-Duty Vehicle GHG Standards · Implement Pavley standards Develop Pavley II light-duty vehicle standards	Transportation	31.7
Energy Efficiency Building and appliance energy efficiency and conservation 32,000 GWh reduced electricity demand · 800 million therms reduced gas use Increase Combined Heat and Power (CHP) electricity production by 30,000 GWh Solar Water Heating (AB 1470 goal)	Electricity & Commercial and Residential	26.4
Renewables Portfolio Standard (33% by 2020)	Electricity	21.2
Low Carbon Fuel Standard	Transportation	16.5
High Global Warming Potential Gas Measures	High GWP	16.2
Sustainable Forests	Forests	5
Water Sector Measures	Water	4.8
Vehicle Efficiency Measures	Transportation	4.8
Goods Movement Ship Electrification at Ports System-Wide Efficiency Improvements	Transportation	3.7
Heavy/Medium Duty Vehicles Heavy-Duty Vehicle GHG Emission Reduction (Aerodynamic Efficiency) Medium-and Heavy-Duty Vehicle Hybridization Heavy-Duty Engine Efficiency	Transportation	2.5
Million Solar Roofs (Existing Program Target)	Electricity	2.1
Local Government Actions and Regional GHG Targets	Land Use and Local Government	2
High Speed Rail	Transportation	1
Landfill Methane Control	Recycling & Waste	1
Methane Capture at Large Dairies	Agriculture	1
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	Industrial	TBD
Additional Emissions Reduction from Capped Sectors		35.2
Total Reductions		169

Source: California Air Resources Board 2008b.

Senate Bill 97 Chapter 185, Statutes of 2007

Senate Bill 97 (SB 97) requires that Office of Planning and Research (OPR) to prepare guidelines to submit to the California Resources Agency regarding feasible mitigation of greenhouse gas emissions or the effects of GHG emissions as required by CEQA. The California Resources Agency is required to certify and adopt these revisions to the State CEQA Guidelines by January 1, 2010. The Guidelines will apply retroactively to any incomplete environmental impact report, negative declaration, mitigated negative declaration, or other related document.

Executive Order S-01-07

Executive Order S-01-07 was enacted by Governor Schwarzenegger on January 18, 2007. The order mandates the following: 1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and 2) that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established in California.

Draft Local Government Operations Protocol

In June, 2008, the California Air Resources Board, California Climate Action Registry, ICLEI - Local Governments for Sustainability, and the Climate Registry released a draft protocol for the preparation of GHG emissions inventories for local government municipal operations. The draft protocol does not contain recommendations for GHG reductions by local governments (CARB 2008c).

4.16.4.3 Local Regulations

The Monterey Bay Unified Air Pollution District presently has no guidance concerning CEQA evaluation of GHG emissions and no regulatory requirements.

4.16.4.4 Monterey County Programs

Monterey County is currently implementing the following programs and initiatives that will, in part, help to reduce GHG emissions from municipal operations and other sources:

- **Municipal Energy Audit**—The County has initiated an energy audit of its existing building, beginning with the oldest structures to evaluate feasible energy and water retrofits.

- Lighting Retrofit—The County recently completed a lighting retrofit at the Adult Rehab Facility which reduced electricity consumption by approximately 686,000 kwh.
- Energy and Water Efficiency Standards for New Municipal Building Construction—The County will be including energy and water efficiency criteria in all of its Requests for Proposals for new construction and remodeling of County buildings.
- Carpools—The County is running two vanpools 5 days per week, twice a day (to and from the office)
- Fleet Vehicles—The County currently has 49 vehicles that are fuel efficient or hybrids.
- Goods Movement Planning—The County has entered into a partnership with AMBAG and the City of Salinas to evaluate the viability of converting up to 25% of its agricultural goods movement from truck to rail.
- Blueprint for Growth—The County is a partner with AMBAG in the Blueprint for Growth Plan development that was initiated in July 2008. The focus of the effort will be to further enhance regional plans for alternative transportation and inter-city route planning.

4.16.5 Project Impacts

4.16.5.1 Methodology

An inventory of GHG emissions was prepared for development allowed within unincorporated Monterey County for the planning horizon of 2030 and for buildout. The scope of the inventory was to include emissions due to new development in unincorporated areas when they occur within Monterey County, except for indirect emissions associated with electricity generation which are included based on PG&E generation sources on a regional basis.

GHG emissions were estimated for increases in vehicle traffic, electricity and natural gas consumption related to new residential, commercial, and industrial development, and landfill emissions due to increased waste disposal. The methodology is described in Appendix B.

4.16.5.2 Thresholds of Significance

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect

on the environment may nonetheless make a considerable contribution to a cumulative effect. The decision in *Communities for a Better Environment, et al v. California Resources Agency* (2002) 103 Cal.App.4th 98 put the approach to evaluating a project's contribution to a cumulative impact succinctly: "In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant."

There are two fundamental questions regarding climate change under CEQA:

- *Does development allowed by the 2007 GP result in cumulative considerable GHG emissions and related climate change effects?*
- *Is development allowed by the 2007 GP prepared for the reasonably foreseeable changes in climate that will occur regardless of local, state, and global GHG reduction efforts?*

These are each addressed below separately.

Greenhouse Gas Emissions

AB 32 states, in part, that "Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, global climate change is clearly a significant cumulative impact. However, the global increase in GHG emissions that has occurred and will occur in the future are the result of the actions and choices of individuals, businesses, local governments, states, and nations. Thus, the analysis below should be understood as an analysis of cumulative contributions to a significant global impact.

The Governor's Office of Planning and Research (OPR) is developing, and the California Resources Agency (Resources Agency) will certify and adopt amendments to the CEQA Guidelines on or before January 1, 2010, pursuant to Senate Bill 97 (Dutton, 2007). These new CEQA Guidelines will provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents.

In the interim, OPR has released a technical advisory (*CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*, Office of Planning and Research, June 19, 2008). OPR offers informal guidance regarding the steps lead agencies should take to address climate change in their CEQA documents. This guidance was developed in cooperation with the Resources Agency, the California Environmental Protection Agency (Cal/EPA), and the CARB. The technical advisory provides the following guidance regarding significance determination:

- *"When assessing a project's GHG emissions, lead agencies must describe the existing environmental conditions or setting, without the project, which*

normally constitutes the baseline physical conditions for determining whether a project's impacts are significant.

- *As with any environmental impact, lead agencies must determine what constitutes a significant impact. In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a "significant impact", individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice.*
- *The potential effects of a project may be individually limited but cumulatively considerable. Lead agencies should not dismiss a proposed project's direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence. Documentation of available information and analysis should be provided for any project that may significantly contribute new GHG emissions, either individually or cumulatively, directly or indirectly (e.g., transportation impacts).*
- *Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project."*

CEQA currently has no thresholds for GHG emissions. As described by the OPR technical advisory, in absence of regulatory guidance or standards, lead agencies must undertake a project-by-project analysis, consistent with available guidance and current CEQA practice. What follows is Monterey County's significance criteria framework for this EIR on the 2007 General Plan

Scientific studies (as best represented by the IPCC's periodic reports) demonstrate that climate change is already occurring due to past GHG emissions. Forecasting of future growth and related GHG emissions under "business as usual (BAU)"³ conditions indicates large increases in those GHG emissions accompanied by an increasing severity of changes in global climate. Thus, the best scientific evidence concludes that global emissions must be reduced below current levels.

³ "Business as usual" (BAU) conditions are defined as population and economic growth in the future using current (2008) building practices and current (2008) regulatory standards. For this EIR, reference to BAU conditions are specifically defined as including current mandatory requirements such as Title 24 (Energy Efficiency Standards), current federal vehicle mileage standards (but not California AB1493 vehicle emission standards which are not currently in force due to lack of issuance of a federal waiver), current renewable portfolio standards (RPS, SB 1078/SB107) for California regulated utilities, current County water efficiency requirements, and other existing local and state requirements. BAU conditions presume no improvements in energy efficiency, water efficiency, fuel efficiency beyond that existing today or as required by existing (2008) statute. Specifically, BAU conditions do not include the GHG reduction measures included in the CARB Draft Scoping Plan (June 2008) which are not yet enacted in statute.

On a state level, AB 32 identified that an acceptable level of GHG emissions in California 2020 is 427 million metric tons of CO₂e, which is the same as 1990 GHG emissions level, is about 11% less than current (480 million metric tons CO₂e in 2004) GHG emissions, and is about 28% less than projected 2020 BAU conditions (596 million metric tons CO₂e).

Thus, on a state level, if California can achieve these reductions, California as a whole will not contribute considerably to global GHG emissions. California's emissions in 2020 will still make a cumulative contribution to global GHG emissions, but relative to current baseline emissions will be substantively reduced.

In order to achieve these GHG reductions, there will have to be widespread reductions of GHG emissions from sources in many various sectors across the California economy including in Monterey County. Some of those reductions will need to come from the existing sources of emissions in the form of changes in vehicle emissions and mileage, changes in the sources of electricity, and increases in energy efficiency by existing residential, commercial, industrial, and agricultural development as well as other measures. While County action can help to promote GHG reductions from the existing economy, existing development is not under the discretionary land use authority of the County, and thus most of these reductions will come as the result of state and federal mandates. The remainder of the necessary GHG reductions will need to come from requiring new development to have a lower carbon intensity than BAU conditions. County land use discretion can substantially influence the GHG emissions from new development.

In terms of determining whether GHG emissions in Monterey County will be cumulatively considerable, one has to evaluate whether Monterey County, is doing its part to ensure that California, as a whole, meets the AB 32 target. While there can and likely will be variation in how much reductions each city or county or region can realistically achieve by 2020, on the average, they must all be approximately 30 percent compared to BAU conditions.

Thus, the simplest measure of whether Monterey County emissions will contribute considerably to GHG emissions in 2020 is whether they are 28 % less than BAU conditions. If they are, Monterey County would not contribute considerably to state or global GHG emissions and related climate change effects. Put another way, if Monterey County emissions are greater than 72% percent of BAU GHG emissions, then the emissions of new development allowed by the 2007 GP (along with the ongoing emissions of existing development) would contribute considerably to state and global GHG emissions and related climate change effects.

Thus, for this EIR, the 2007 GP would result in a cumulatively considerable contribution to a significant cumulative impact if:

- GHG emissions associated with unincorporated Monterey County (including the GHG emissions of Monterey County government and the GHG emissions

in unincorporated part of the County) are greater than 72 percent of forecasted BAU GHG emissions.

The 2007 GP requires preparation of a detailed current GHG inventory and GHG forecast for the County for 2020 within 24 months of GP adoption. As discussed below, the recommended goal for the GHG reduction plan required by Policy OS 10.11 is to reduce County GHG emissions by 28% relative to BAU emissions in 2020.

For the interim, this EIR will rely on the estimate of GHG emissions prepared for this EIR for 2030, adjusted to the year 2020. As discussed below, based on estimated BAU emissions, the 2007 GP will result in GHG emissions that exceed the significance criteria. Mitigation measures are included accordingly. As discussed above, in the next years the State will be adopting comprehensive regulations to reduce the GHG emissions from vehicles, industry, building, and other sources. These regulations are expected to play a major part in reaching the goal of reducing currently projected 2020 emissions levels by twenty-eight percent.

Climate Change Adaptation

A certain amount of environmental change is inevitable in Monterey County due to current GHG emissions and unavoidable future increases in GHG emissions worldwide. Change on a local basis to Monterey County agriculture, water supplies, flooding, wildfire potential, environmental health, and other areas is reasonably foreseeable, although not quantifiable in many aspects as present. New development allowed by the 2007 GP could place persons and property at higher levels of risk to climate change effects if it does not anticipate reasonably foreseeable changes in environmental conditions. Thus, for this EIR, the 2007 GP would result in a cumulatively considerable contribution to a significant cumulative impact if:

- Development allowed by the 2007 GP is unprepared for reasonably foreseeable environmental changes that will occur due to climate change and thus subjects property and persons to additional risk of physical harm related to flooding, public health, wildfire risk and other impacts.

4.16.5.3 Impact Analysis

Contribution to Global Climate Change

Impact CC-1: Development of the 2007 General Plan would contribute considerably to cumulative GHG emissions and global climate change as the County in 2020 would have GHG emissions greater than 72 percent of BAU conditions (Mitigated to Less Than Considerable for 2030 Planning Horizon, but Cumulatively Considerable with Mitigation for Buildout)

2030 Planning Horizon

Impact of Development with Policies

New GHG Emissions from transportation and direct and indirect energy consumption from residential, commercial, and industrial growth were estimated for the 2030 Planning Horizon for development allowed by the 2007 General Plan and are shown in Table 4.16-3. Emissions associated with land use change were not estimated for the reasons discussed below.

Transportation Emissions

New vehicle carbon dioxide emissions will result from new residential, commercial, industrial and public service development. The results of the EMFAC2007 modeling indicate that as of 2030, vehicular traffic within the Monterey County planning area with implementation of the 2007 General Plan (without consideration of City or adjacent County growth) would increase CO₂e emissions by 136,000 metric tons in 2030.

Taking into account the adopted AB 1493 standards for GHG emissions, there could be a reduction of 11% in the carbon dioxide emissions of light duty vehicles and therefore the increased emissions for 2030 would be 126,000 metric tons instead of 136,000 tons.

The AB-32 Draft Scoping Plan calls for implementation of AB 1493 standards (commonly called Pavley I) for GHG emissions and a more stringent enhancement named Pavley II, which would result in a reduction in GHG emissions from passenger vehicles of 20% by 2020. In addition, the Scoping Plan includes the implementation of a Low Carbon Fuel Standard that will reduce GHG emissions from passenger vehicles by 10%. The Pavley I and II efforts and Low Carbon Fuel Standard would result in an increase in GHG emissions of 109,000 metric tons in 2030 instead of 136,000 tons.

Table 4.16-3. Monterey County Greenhouse Gas Increase in Emissions, 2020 and 2030

Source	GHG Emissions	% of Total	Notes
<i>Business as Usual Conditions</i>			
Vehicle Emissions	136,476	55%	Based on growth in VMT
Natural Gas Consumption	26,000	10%	Residential, commercial, and industrial consumption.
Electricity Consumption	24,935	10%	Residential, commercial, and industrial consumption.
Industrial processes	51,230	21%	Based on growth in industrial employment
Landfill Emissions	8,987	1%	Based on growth in population.
Agricultural Emissions	No change	NA	Assumed no overall change in agricultural acreage.
Total from New Development 2030	247,628	100%	
Total from New Development 2020	144,450		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,394,404		Assumed no change since 2006.
Total for 2020	1,538,853		
<i>Percent Change relative to 2006</i>		<i>10%</i>	
<i>With AB 1493 vehicle emissions standards and SB 1078, SB 107 RPS requirement of 20% renewable energy</i>			
Vehicle Emissions	126,477	54%	Adjusted for Pavely 1
Natural Gas Consumption	26,000	11%	Not adjusted
Electricity Consumption	22,940	10%	Adjusted for SB 1078/SB 107
Industrial processes	51,230	22%	Not adjusted for potential improvements in process efficiency.
Landfill Emissions	8,987	4%	Not adjusted for potential improvements in landfill capture.
Agricultural Emissions	No change	NA	Assumed no overall change in agricultural acreage.
Total from New Development 2030	235,634	100%	
Total from New Development 2020	137,453		Scaled based on years (+14 years to 2020/+24 years to 2030)

Total from Existing Development	1,306,486		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development (due to Pavely 1 and SB 1078/SB 107).
Total for 2020	1,443,939		
<i>Percent Change relative to 2006</i>		-4%	
<i>Percent of 2020 BAU</i>		94%	
<hr/> <i>With Pavley II vehicle emissions standards, Governor's Low Carbon Fuel Standard and Draft Scoping Plan RPS goal of 33% renewable energy</i> <hr/>			
Vehicle Miles Emissions	109,206	51%	Adjusted for Pavely 1, 2 and low-carbon fuel standard
Natural Gas Consumption	26,000	12%	Not adjusted
Electricity Consumption	19,699	9%	Adjusted for Scoping Plan RPS goal of 33%
Industrial processes	51,230	24%	Not adjusted for potential improvements in process efficiency.
Landfill Emissions	8,987	4%	Not adjusted for potential improvements in landfill capture.
Agricultural Emissions	No change	NA	Assumed no overall change in agricultural acreage.
Total from New Development 2030	215,122	100%	
Total from New Development 2020	125,488		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,156,340		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development due to Pavley 2, LCFS and RPS goal of 33%
Total for 2020	1,281,828		
<i>Percent Change relative to 2006</i>		-8%	
<i>Percent of 2020 BAU</i>		83%	

Direct Energy Consumption Emissions

New buildings allowed by the 2007 General Plan would consume natural gas for heating, cooking, and other processes and other area sources. By 2030, residential, commercial and industrial development allowed by the 2007 General Plan would result in estimated new annual carbon dioxide emissions of 26,000 metric tons.

Indirect Electricity GHG Emissions

New buildings allowed by the 2007 General Plan would also consume electricity. By 2030, residential and commercial development allowed by the 2007 General Plan would result in estimated increase in annual indirect GHG emissions of 25,000 metric tons related to electricity under BAU conditions

Taking into account the adopted SB0178/SB107 RPS standards, there could be a reduction of 8% in the GHG emissions related to electricity production by PG&E and thus the increase in indirect GHG emissions would be reduced to 23,000 metric tons.

The Scoping Plan calls for an increase in RPS standards to 33%, which would result in a reduction of 21% in the GHG emissions related to electricity production by PG&E and thus the increase in indirect GHG emissions would be reduced to 20,000 metric tons.

Industrial Emissions

New industries would also consume fossil fuels and other GHGs for industrial processes. The nature of new industrial development is unknown, and thus no specific estimate was made of 2030 industrial process GHG emissions. However, an estimate was made based on scaling the current industrial GHG emissions based on the projected increase in industrial employment. Based on employment data, there would be an increase of industrial employment by 25% by 2030. Industrial process emissions in 2006 were estimated as 201,000 metric tons of CO₂e. Thus increased GHG emissions in 2030 due to new growth are estimated to be 51,000 metric tons of CO₂e.

Emissions Associated With Landfills

Development allowed by the 2007 General Plan would result in increased generation of waste which would require disposal in a landfill, which would increase methane emissions.

Based on population data, there would be an increase of population in the unincorporated County by 27% by 2030 and by 95% at buildout. Landfill emissions in 2006 were estimated as 33,000 metric tons of CO₂e. Thus

increased GHG emissions by 2030 due to new growth are estimated to be 9,000 metric tons of CO₂e.

Given the current and planned implementation of landfill gas capture and use of waste to energy technology in the future, future waste disposal may not contribute substantial amounts of methane. However, until full capture and reuse of landfill gas is achieved, there will be increased emissions associated with additional waste disposal.

Agricultural Emissions

Based on trends in agricultural employment (AMBAG 2004; AMBAG 2008), no net expansion in agricultural development is projected for 2030 or buildout as virtually no increase in agricultural employment is forecast by AMBAG to 2030 for the Monterey County in the most recent (2008) and the immediately prior (2004) economic forecasts. Thus, no estimate of additional agricultural emissions was made.

Traffic, electricity demand, and direct energy use for agricultural sector, including the new wineries is taken into account broadly in the calculation of vehicle emissions and of growth in electricity and direct energy use related emissions. Specific process emissions associated with new wineries were not estimated. Although emissions associated with wineries may rise compared to baseline, on a broad scale, with no increase in agricultural employment overall, it is expected that overall, there will not be substantial changes on overall agricultural emissions.

Emissions Associated With Land Use Changes

Development allowed by the 2007 General Plan would result in the conversion of natural vegetation and agricultural lands that would result in the loss of carbon sinks. Given the uncertainties associated with estimated GHG fluxes associated with natural vegetation and agricultural lands, the potential loss of carbon sinks was not quantified, but would nevertheless contribute GHG emissions along with other sources. As discussed below a number of 2007 General Plan policies seek to limit the amount of natural land conversion due to urban growth.

2007 General Plan Policies

The policies in the 2007 General Plan that relate to reduction of GHGs (compared to BAU) are referenced below by element and concern six different subjects: land use, transportation, water efficiency, energy, open space/conservation, and waste reduction. These policies address focusing growth in a limited number of communities that can provide services, jobs and housing. This is intended to result in a reduction in vehicle miles traveled. These policies also would result in a limitation on the conversion of agricultural land to residential and commercial development.

Land Use Element

The General Plan land use policies related to reduction of GHGs support higher density in the urban areas, transfer of development rights and credits, affordable housing, jobs/housing balance, and mixed use and transit oriented development. Land use related GP policies include:

LU-1.1 requires management of the type, location, timing, and intensity of growth in the unincorporated area shall be managed. LU-1.2 discourages premature and scattered development. LU-1.7 encourages clustering of residential development. LU-1.8 promoted voluntary reduction or limitation of development potential in the rural and agricultural areas through dedication of scenic or conservation easements, Transfer of Development Rights (TDR). LU-1.9 establishes a priority of infill of vacant non-agricultural lands in existing developed areas and new development within designated urban service areas. LU-1.19 establishes a priority of development within the focused growth areas (Community Areas, Rural Centers and Affordable Housing Overlay districts) and includes a Development Evaluation System for other areas that includes criteria that consider proximity to a City, Community Area, or Rural Center mixture of uses, proximity to multiple modes of transportation and jobs-housing balance within the community and between the community and surrounding areas.

LU-2.3 directs that high density residential areas shall be designated closest to urban areas. LU-2.4 directs that areas designated for residential use shall be located with convenient access to employment, shopping, recreation, and transportation and that higher density residential areas should be located with convenient access to public transit. LU-2.12 encourages and directs the development of affordable and workforce housing projects through the establishment of an Affordable Housing Overlay Program. LU-2.13 establishes a program for retaining affordable housing units. LU-2.15 directs the county to work with AMBAG and cities to direct the majority of urban growth including higher density housing development into cities and their spheres of influence with an emphasis on redevelopment and infill. LU-2.17 directs that, in coordination with the cities, sufficient land shall be designated to locate new housing as close to employment centers as feasible. LU-2.21 and LU 2.23 promote mixes use, transit, and jobs-housing balances in Community Areas.

LU-4.5 encourages a mix of residential and commercial uses in commercial areas.

Circulation Element

The General Plan transportation policies related to reduction of GHGs support public transportation and alternative transportation modes, reduce vehicle miles traveled, and promote transit oriented developments.

C-2.2 requires protection of existing and proposed public transportation facilities. C-2.4 encourages a reduction of the number of vehicle miles traveled per person. C-2.5 encourages overall land use patterns that reduce the need to travel by automobile. C-2.6 encourages bicycle and automobile storage facilities in conjunction with public transportation facilities. C-2.7 directs that new development shall be located and designed with convenient access and efficient transportation for all intended users, and where possible consider alternative transportation modes.

C-3.1 requires that the transportation modes be planned and strategies developed to, among other requirements, reduce the consumption of fossil fuels. C-3.4 supports strategies to encourage travel in non-peak hours. C-3.5 encourages transportation alternatives such as bicycles, car pools, public transit, and compact vehicles to be accommodated within and outside the public right-of-way and may be included as part of an Area Plan.

C-4.3 requires that the needs of bicyclists, and pedestrians, where appropriate, be provided in all public rights-of-way. C-4.5 directs that new public local and collector roads among, other requirements provide for bicycle and pedestrian traffic within the right-of-way. C-4.7 requires, where appropriate, that bicycle paths shall be separated from major roads and highways and be provided between adjacent communities.

C-6.1 endorses the efforts of transit operators to improve their services and equipment, including aggressive marketing and education campaigns. C-6.2 requires that major traffic generating events encourage the use of mass transit options. C-6.3 supports concentration of new development along major transportation corridors and near cities to make transit services to these areas more feasible. C-6.4 requires coordinated transit services. C-6.5 encourages use of public transit and alternative modes of transportation through land use designations and zoning which cluster employment centers with a mix of other uses, and project design that incorporates car pool areas, “park and ride” facilities and similar incentives. C-6.6 requires transit and bus parking facilities at major hotels, motels, convention centers, other tourist-serving areas and events.

C-8.1 requires protection of the potential for future rail transportation. C-8.3 encourages passenger rail, light rail, or bus rapid transit service to urban centers. C-8.4 encourages transit-oriented development around existing and future rail, light rail, or bus rapid transit stations.

C-10.1 requires an integrated system of suggested bicycle routes for Monterey County. C-10.2 requires coordination of a comprehensive bicycle plan. C-10.3 requires consideration of improved bike routes during construction or expansion of roadways within major transportation corridors. C-10.4 requires the integration of bicycle systems with other public transportation modes. C-10.5 encourages bicycling as a viable transportation mode for visitor-serving areas. C-10.6 encourages visitor-serving facilities to provide adequate and secure bicycle parking facilities. C-10.7 requires that new and improved multi-modal transfer facilities, such as transit centers and park-and-ride lots, include adequate and secure bicycle parking facilities.

Open Space and Conservation Element

The General Plan open space and conservation related policies related to GHG emissions reductions support open space networks, require tree conservation, promote alternative energy and energy efficiency and reduction of travel through concentrated development.

OS-5.11 promotes conservation of large, continuous expanses of native trees and vegetation.

OS-9.1 encourages the use of solar, wind and other renewable resources for agricultural, residential, commercial, industrial, and public buildings. OS-9.2 directs development toward cities, Community Areas, and Rural Centers where energy expended for transportation can be minimized. OS-9.3 requires that areas of urban concentration provide convenient access for employment, commercial, and other activities. OS-9.4 requires lots to be oriented to maximize the energy gains from solar and/or wind resources in order to minimize energy losses where possible. OS-9.5 promotes clustered development where such development will conserve energy. OS-9.6 requires development to incorporate features that reduce energy used for transportation, including pedestrian and bicycle pathways, access to transit, and roadway design as appropriate. OS-9.7 encourages weatherization of existing buildings. OS-9.8 requires solar heating as the primary source for heat in all new swimming pools where it is proven most cost-effective.

OS-10.2 encourages mass transit, bicycles and pedestrian modes of transportation and other transportation alternatives to automobiles. OS-10.3 supports conservation of naturally vegetated and forested

areas.OS-10.4 supports industrial and commercial development to be concentrated in areas that are more easily served by public transit. OS-10.5 encourages mixed land uses that reduce the need for vehicular travel.

OS-10.10 requires consideration of sustainable land use strategies for the design of future development within Community Areas and Rural Centers, to reduce energy consumption, minimize GHG emissions, and foster healthier environments for people including: design development to take advantage of solar-orientation; employ systematic water conservation measures including high efficiency appliances; Promote Transit Oriented Development (TOD) to increase mobility and reduce auto dependency. The policy supports design of future development to maximize energy efficiency and accommodate energy infrastructure (i.e., transmission lines, power plants and pipelines, and fueling stations), including the potential for distributed renewable generation.

OS-10.11 required that within 24 months of the adoption of the General Plan, Monterey County will develop a Greenhouse Gas Reduction Plan to reduce emissions by 2020 to the 1990 level. At a minimum, said Plan will establish an inventory of current emissions in the County of Monterey and include an inventory of emissions as of 1990.

Public Services Element

The Public Services Element includes policies that promote water conservation and efficiency (which saves pumping energy), waste reduction/recycling (which reduces landfill –related GHG emissions and emissions associated with goods fabrication), and compact development.

Water conservation and efficiency policies include the following:

PS-2.8 requires all projects be designed to maintain or increase the site's pre-development absorption of rainfall (minimize runoff), and to recharge groundwater where appropriate. PS-3.3 requires specific criteria for proof of a long term sustainable water supply for new residential or commercial. PS-3.12 requires the County to establish an ordinance identifying conservation measures that reduce agricultural water demand. PS-3.13 requires the County to establish an ordinance identifying conservation measures that reduce potable water demand. PS-3.14 promotes the maximization of recycled water use as a potable water offset by increasing the use of treated water, working with the agricultural community to develop new uses for tertiary recycled water and increase the use of tertiary recycled water for irrigation of lands currently being irrigated by groundwater pumping; working with urban water providers to emphasize use of

tertiary recycled water for irrigation of parks, playfields, schools, golf courses, and other landscape areas to reduce potable water demand; working with urban water providers to convert existing potable water customers to tertiary recycled water as infrastructure and water supply become available. PS-4.4 encourages groundwater recharge through the use of reclaimed wastewater.

Waste reduction related policies include the following

PS-5.1 supports programs to reduce the amount of waste generated in the County to the maximum extent feasible including increased recycling, establishment of yard waste collection services, and encouraging the participation of residents and businesses in other waste diversion programs. PS-5.2 supports the designation, development and maintenance of efficient disposal sites. PS-5.3 requires the implementation of programs to facilitate recycling/diversion of waste materials at new construction sites, demolition projects, and remodeling projects. PS-5.4 promotes the maximum use of solid waste source reduction, reuse, recycling, composting, and environmentally-safe transformation of wastes, consistent with the protection of the public's health and safety. PS-6.1 requires that future waste disposal County contracts require efficient, cost-effective solid waste disposal sites and diversion programs. PS-6.5 requires that site development plans shall include adequate solid waste recycling collections areas.

Policies that support reduction of vehicle miles travelled (by motor vehicle) include:

PS-7.2 requires that school sites should be located so that they are served by adequate infrastructure including vehicle, pedestrian and bicycle access. PS-8.7 promotes compact, mixed use development utilizing the concepts of the walkable community, which are designed to encourage physical activity and fitness by permitting walking and bicycle riding to shopping, work and entertainment venues as an alternative to the use of motor vehicles.

Area Plan Policies

Cachagua Area Plan

CACH-3.4 discourages the removal of native trees. CACH-3.8 supports dedication of trail easements as a condition of development approval.

Carmel Valley Master Plan

CV-1.6 limits new residential subdivision in Carmel Valley to creation of 266 new lots with preference to projects including at least

50% affordable housing units. Given the location of much of Carmel Valley far from centers of commerce and employment, the limitation overall of development in remote areas supports development in areas with shorter travels for services and work.

CV-2.1 requires exploration of public transit and new development to include a road system adequate for bus (both transit and school), pedestrian, and bicycle traffic as well as vehicles. CV-2.3 requires all new road work or major work on existing roads within the commercial core areas to provide room for use of bicycles and separate pedestrian walkways and the provision of bicycle routes on the shoulders between development areas throughout the Carmel Valley. CV-2.4 requires that all new bridge construction or remodeling include provision for pedestrians and bicyclists. CV-2.15 requires that new major developments with access adjacent to Carmel Valley Road provide space for the transit buses to stop, the parking of cars and facilities for the safe storage of bicycles.

CV-3.11 discourages removal of native trees. CV-3.14 encourages a network of shortcut trails and bike paths to interconnect neighborhoods, developments and roads. CV-3.19 supports potential dedication of trail easements as a condition of development approval.

CV-5.3 requires development to incorporate designs with water reclamation and conservation. CV-5.4 supports the use of reclaimed water to replace potable water in landscape irrigation.

Central Salinas Valley Plan

CSV-3.2 encourages the development and utilization of renewable energy sources such as solar, wind generation, and biomass technologies in the Central Salinas Valley. CSV-6.1 encourages energy-efficient business and agricultural practices.

Greater Monterey Peninsula Plan

GMP-2.7 encourages new sites for office employment, services, and local conveniences to be located to allow use of alternate modes of transportation such as public transit buses, bicycles and walking. GMP-2.9 encourages provision of separate bike paths during construction and expansion of all highways and major arterials. GMP-3.13 supports potential dedication of trail easements as a condition of development approval.

North County Area Plan

NC-3.4 discourages removal of healthy trees. NC-3.7 requires development of a Trails Plan consistent with General Plan Policy OS-1.10.

South County Area Plan

SC-1.2 encourages clustered development in all areas where development is permitted in order to make the most efficient use of land and to preserve agricultural land and open space. SC-3.1 notes that co-generation facilities may be allowed in conjunction with other industrial uses and oil and gas removal as a means of energy conservation on lands designated for industrial use, subject to a use permit in each case.

Toro Area Plan

T-2.4 supports improvement of public transit roadway improvements, and improved bicycle safety measures at the earliest time that funding becomes available. T-2.6 requires improvements to Corral de Tierra, River and San Benancio Roads to accommodate bicycles, horses, and people where possible. T-2.10 requires increasing accessibility of Toro residents to mass transit, either through maintenance of existing park and ride lots or new bus service, particularly in the Corral de Tierra, San Benancio, and River Road areas. T-3.7 discourages the removal of oak trees.

Significance Determination

Many of the policies identified in the 2007 General Plan for land use, circulation, and open space and conservation, and public services will help reduce GHG emissions. In particular, Policy OS -0.11 requires development of a detailed GHG inventory and adoption of a Greenhouse Gas Reduction Plan.

As shown above in Table 4.16-3, GHG emissions in Monterey County under BAU conditions would result in 2020 emissions that are 10% higher than current (2006) GHG emissions without consideration of currently adopted programs (AB 1493 and SB 1078/SB 107). With consideration of currently adopted programs, County GHG emissions would be 4% less than current (2006) GHG emissions and would be an estimated 94% of BAU GHG emissions. This amount exceeds the significance threshold of 72% of BAU GHG emissions.

Implementation of the GHG Reduction Plan by the County would reduce emissions to the significance threshold. However, preparation of the plan is at least 24 months in the future, and current policies do not provide a comprehensive framework for reducing GHG emissions in the County for discretionary development, and thus without the articulation of specific requirements for GHG reductions, the 2007 General Plan would result in a considerable contribution to cumulative GHG emissions and global climate change.

The following mitigation measures are recommended for implementation by the County.

Mitigation Measures

Mitigation Measure CC-1a: Modify Policy OS-10.11 regarding the Greenhouse Gas Reduction Plan

Revise Policy OS-10.11 as follows:

OS-10.11 - Within 24 months of the adoption of the General Plan, Monterey County will develop a Greenhouse Gas Reduction Plan with a target to reduce emissions by 2020 by 28 percent relative to estimated “business as usual” 2020 emissions.

At a minimum, the Plan shall:

- a. establish an inventory of current (2006) GHG emissions in the County of Monterey including but not limited to residential, commercial, industrial and agricultural emissions;
- b. forecast GHG emissions for 2020 for County operations;
- c. forecast GHG emissions for areas within the jurisdictional control of the County for “business as usual” conditions;
- d. identify methods to reduce GHG emissions;
- e. quantify the reductions in GHG emissions from the identified methods;
- f. requirements for monitoring and reporting of GHG emissions;
- g. establish a schedule of actions for implementation;
- h. identify funding sources for implementation; and
- i. identify a reduction goal for the 2030 Planning Horizon.

During preparation of the Greenhouse Gas Reduction Plan, the County shall also evaluate potential options for changes in County policies regarding land use and circulation as necessary to further achieve the 2020 and 2030 reduction goals and measures to promote urban forestry and public awareness concerning climate change.

Mitigation Measure CC-2: Add Policy OS-10.12: Adoption of a Green Building Ordinance

OS-10.12 - Within 24 months of the adoption of the General Plan, the County shall adopt a Green Building Ordinance to require green building practices and materials for new civic buildings and new private residential, commercial, and industrial buildings that will include, but are not limited to, the following:

- All new County government projects and major renovations shall meet, at a minimum, LEED-Silver standards or an equivalent rating system
- All new commercial buildings shall be certified under the LEED rating system for commercial buildings or an equivalent rating system.
- All new residential projects of 6 units or more shall meet the GreenPoint Rating System for residential buildings, or an equivalent alternate rating system.
- The County shall require consideration of solar building orientation, solar roofs, cool pavements, and planting of shade trees in development review of new commercial and industrial projects and new residential projects of 6 units or more.
- Prioritized parking within new commercial and retail areas for electric vehicles, hybrid vehicles, and alternative fuel vehicles shall be provided for new commercial and institutional developments.
- New commercial and industrial projects greater than 25,000 square feet shall be required to provide on-site renewable energy generation as part of their development proposal. This requirement can be met through a solar roof or other means.

Mitigation Measure CC-3: New Policy OS-10.13 - Promote Alternative Energy Development

OS-10.13: The County shall use Geographic Information Systems (GIS) to map and assess local renewable resources, the electric and gas transmission and distribution system, community growth areas anticipated to require new energy services, and other data useful to deployment of renewable technologies.

The County shall adopt an Alternative Energy Promotion ordinance that will:

- identify possible sites for production of energy using local renewable resources such as solar, wind, small hydro, and, biogas;
- consider the potential need for exemption from other General Plan policies concerning visual resources, ridgeline protection, biological resources;
- evaluate potential land use, environmental, economic, and other constraints affecting renewable energy development; and
- adopt measures to protect both renewable energy resources, such as utility easement, right-of-way, and land set-asides as well as visual and biological resources.

The County shall also complete the following:

- Evaluate the feasibility of Community Choice Aggregation (CCA) for the County. CCA allows cities and counties, or groups of them, to aggregate the electric loads of customers within their jurisdictions for purposes of procuring electrical services. CCA allows the community to choose what resources will serve their loads and can significantly increase renewable energy.
- If CCA is ultimately not pursued, the County shall evaluate the feasibility of purchasing renewable energy certificates to reduce the County's contribution to GHG emissions related to County electricity use.
- The County shall develop a ministerial permit process for approval of small-scale wind and solar energy systems for on-site home, small commercial, and farm use.

Mitigation Measure CC-4: New Policy PS-5.5 - Promote Recycling and Waste Reduction

PS-5.5: The County shall promote waste diversion and recycling and waste energy recovery as follows:

- The County shall adopt a 75% waste diversion goal.
- The County shall support the extension of the types of recycling services offered (e.g., to include food and green waste recycling).
- The County shall support waste conversion and methane recovery in local landfills to generate electricity.
- The County shall support and require the installation of anaerobic digesters for winery facilities and wastewater treatment facilities under County jurisdiction.

Mitigation Measure CC-5: Adopt GHG Reduction Plan for County Operations

Within 12 months of adoption of the General Plan, the County shall quantify the current and projected (2020) GHG emissions associated with County operations and adopt a GHG Reduction Plan for County Operations. The goal of the plan shall be to reduce GHG emissions associated with County Operations by at least 28% relative to BAU 2020 conditions.

Potential elements of the County Operations GHG Reduction Plan shall include, but are not limited to, the following measures: an energy tracking and management system; energy-efficient lighting; lights-out-at-night policy; occupancy sensors; heating, cooling and ventilation system retrofits; ENERGY STAR appliances; green or reflective roofing; improved water pumping energy efficiency; central irrigation control system; energy-efficient vending machines; preference for recycled materials in purchasing; use of low or zero-emission vehicles

and equipment and recycling of construction materials in new county construction; conversion of fleets (as feasible) to electric and hybrid vehicles; and solar roofs.

Environmental Impacts Associated with Mitigation Measures

Many of the measures described above, for example, improved energy-efficiency for residential and commercial developments, will have little to no secondary environmental impacts. However, some of the measures described above, such as new renewable energy facilities could have significant secondary environmental impacts. New utility-scale wind power could have significant impacts related to noise and biology. New utility-scale wind and solar installations could have impacts related to aesthetics and ridgeline development. New recycling facilities could have impacts related to land use compatibility and odor. Environmental impacts would be reviewed in accordance with General Plan policies and under CEQA (for discretionary projects). For the proposed ministerial permit program for small-scale wind and solar installations, CEQA review would be completed for the program as a whole and environmental conditions incorporated into the program to avoid, minimize, and compensate for any identified significant environmental impacts.

Significance Conclusion

Many of the policies identified in the 2007 General Plan for land use, circulation, and open space and conservation, and public services will help reduce GHG emissions, in particular Policy OS-10.11 which requires development of a detailed GHG inventory and adoption of a Greenhouse Gas Reduction Plan. New Policies OS-10.12, OS-10.13, and PS-5.5 are proposed above as mitigation along with a GHG Reduction Plan for Municipal Operations.

As shown above in Table 4.16-3, with consideration of currently adopted programs, County GHG emissions would be 2% higher than current (2006) GHG emissions and would be an estimated 93% of BAU GHG emissions. This amount exceeds the significance threshold of 72% of BAU GHG emissions. The GHG reductions associated with full implementation of 2007 General Plan policies and the proposed mitigation have not been quantified but will be quantified during the GHG reduction planning required by Policy OS-10.11 and recommended mitigation,

By 2012 the state's regulations will be fully enacted and the 2007 General Plan requires completion of the County's Greenhouse Gas Reduction Plan prior to that time (assuming General Plan adoption at the latest in 2009). At that time, the framework will be in place to achieve substantial GHG emission reductions by 2020 that will be consistent with AB 32. As the state and County's efforts proceed to reduce emissions, the County's contribution would less than considerable at 2020. Mitigation identified in this chapter

requires extension of the Greenhouse Gas Reduction Plan to 2030 along with a 2030 reduction goal, which, when enacted will make the County's contribution less than cumulatively considerable for the 2030 planning horizon as well.

Buildout

Impact of Development with Policies

Beyond 2020 and 2030, substantial further reductions in GHG emissions will be necessary to stabilize atmospheric GHG concentrations to eventually halt anthropogenic-induced climate change. A number of researchers have proposed reduction of GHG emissions in the developed world by 80 percent below 1990 levels by 2050. California Executive Order S-3-05, signed by the current governor, adopts this reduction level as the goal for the state; however as an Executive Order it only applies to state agencies – not to the actions of local governments. Nevertheless, for this analysis, substantive reductions in emissions are assumed necessary after 2020 and 2030 in order to address cumulative GHG emissions and associated climate change effects.

While emissions were estimated for buildout as shown below in Table .16-4, these estimates are considered highly speculative as the likelihood of 100 percent buildout is very low and the character of residential, commercial, and industrial development and transportation technology more than 80 years in the future is unknown.

Transportation Emissions

The results of the modeling indicate that at buildout (assumed to be 2092), under BAU conditions, vehicular traffic in the Monterey County planning area would result in increased CO₂e emissions related to increased VMT would be 400,000 metric tons at buildout.

Taking into account the proposed Pavley II standards and the Low Carbon Fuel Standard, there could be a reduction of 30% in the carbon dioxide emissions of passenger vehicles compared to BAU. If Pavley II and the Low Carbon Fuel Standard are implemented as part of the ARB Draft Scoping Plan, the increased emissions would be 320,000 metric tons compared to 400,000 metric tons under BAU conditions.

Direct Energy Consumption Emissions

New buildings would consume natural gas for heating, cooking, and other processes and other area sources. At buildout, residential, commercial and industrial development allowed by the 2007 General Plan would result in estimated new annual carbon dioxide emissions of 92,000 metric tons.

Table 4.16-4. Monterey County Greenhouse Gas Increase in Emissions, Buildout

Source	GHG Emissions	% of Total	Notes
<i>Business as Usual Conditions</i>			
Vehicle Emissions	399,713	50%	Based on growth in VMT
Natural Gas Consumption	92,251	11%	Residential, commercial, and industrial consumption.
Electricity Consumption	89,282	11%	Residential, commercial, and industrial consumption.
Industrial processes	194,226	24%	Based on growth in industrial employment
Landfill Emissions	31,243	4%	Based on growth in population.
Agricultural Emissions	No change	NA	Assumed no overall change in agricultural acreage.
Total from New Development	806,715	100%	
Total from Existing Development	1,394,404		Assumed no change since 2006.
Total	2,201,119		
<i>Percent Change relative to 2006</i>		58%	
<i>With Pavley II vehicle emissions standards, Governor's Low Carbon Fuel Standard and Draft Scoping Plan RPS goal of 33% renewable energy</i>			
Vehicle Emissions	319,739	45%	Adjusted for Pavely 1, 2 and low-carbon fuel standard
Natural Gas Consumption	92,251	13%	Not adjusted
Electricity Consumption	70,533	10%	Adjusted for Scoping Plan RPS goal of 33%
Industrial processes	194,226	27%	Not adjusted for potential improvements in process efficiency.
Landfill Emissions	31,243	4%	Not adjusted for potential improvements in landfill capture.
Agricultural Emissions	No change	NA	Assumed no overall change in agricultural acreage.
Total from New Development	707,992	100%	
Total from Existing Development	1,156,340		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development for Pavely 2, LCFS and RPS goal of 33%.
Total	1,864,332		
<i>Percent Change relative to 2006</i>		34%	

Although the efficiency of natural gas consumption and other areas will likely improve dramatically by buildout, there are no current programs included in the AB 32 draft scoping plan or early action items concerning direct natural gas consumption.

Indirect Electricity GHG Emissions

New buildings would also consume electricity. At buildout, residential, commercial and industrial development allowed by the 2007 General Plan would result in estimated increase in annual indirect GHG emissions of 89,000 metric tons related to electricity under BAU conditions

Taking into account the proposed 33% RPS standard in the AB 32 Draft Scoping Plan, there could be a reduction of 21 % in the GHG emissions related to electricity production by PG&E and thus the indirect GHG emissions would be further reduced to 71,000 metric tons. It is likely that the carbon intensity of electricity generation 80 years in the future will be far lower than that resultant from full implementation of the 33% RPS standard.

Industrial Emissions

Based on employment data, there would be an increase of industrial employment by 96% at buildout. Industrial process emissions in 2006 were estimated as 201,000 metric tons of CO₂e. Thus increased GHG emissions at buildout due to new growth are estimated to be 194,000 metric tons of CO₂e. A number of the proposed measures in the AB 32 Draft Scoping Plan would help to reduce industrial GHG emissions but the potential amount of reduction has not been estimated.

Agricultural Emissions

While economic forecasting of agricultural employment was available for the 2030 planning horizon, the amount of expansion or contraction of the agricultural economy over 80 years in the future is unknown. Further, there are substantive uncertainties in estimating GHG emissions associated with diverse agricultural practices and crops. Thus, no estimate of GHG emissions associated with potential agricultural expansion at buildout was prepared.

Emissions Associated With Land Use Changes

Development allowed by the 2007 General Plan through buildout would result in the conversion of natural vegetation and agricultural lands that would result in the loss of carbon sinks. Given the uncertainties associated with estimated GHG fluxes associated with natural vegetation and agricultural lands, the potential loss of carbon sinks was not

quantified, but would nevertheless contribute GHG emissions along with other sources. As discussed below a number of 2007 General Plan policies seek to limit the amount of natural land conversion due to urban growth.

Emissions Associated With Waste Processing

Development allowed by the 2007 General Plan would result in increased generation of waste which would require disposal in a landfill, which would increase methane emissions.

Based on population data, there would be an increase of population in the unincorporated County by 95% at buildout. Landfill emissions in 2006 were estimated as 33,000 metric tons of CO₂e. Thus increased GHG emissions by buildout due to new growth are estimated to be 31,000 metric tons of CO₂e.

Given the current and planned implementation of landfill gas capture and use of waste to energy technology in the future, future waste disposal may not contribute substantial amounts of methane. However, until full capture and reuse of landfill gas is achieved, there will be increased emissions associated with additional waste disposal.

2007 General Plan and Area Policies

The 2007 General Plan and Area Plan policies summarized above would apply to buildout after 2030.

Significance Determination

There are substantial uncertainties as to the technical means to implement substantial reductions to meet future post-2020 goals, which could be a reduction of GHG emissions to levels 80 percent below 1990 levels. The 2007 General Plan focuses growth in Community Areas, Rural Centers, and Affordable Housing Areas, but growth in these areas will occur early in the life of the General Plan and later growth would be dispersed across the County primarily on lots of record, thus resulting in greater travel distances and greater energy uses. Policy OS-10.11 only has a goal of GHG reductions up to 2020 (matching the AB 32 horizon), but further substantive reductions in GHGs will be required beyond 2030 in order to avoid even worse consequences of climate change. Thus, for the period after 2030, development under the 2007 General Plan would result in a considerable contribution to cumulative GHG emissions and global climate change.

The following mitigation measures are recommended for implementation by the County.

Mitigation Measures

Mitigation Measure CC-11 (Same as BIO-1.9): By 2030, prepare an Update to the General Plan to identify expansion of existing focused growth areas and/or to identify new focused growth areas to reduce loss of natural habitat in Monterey County and vehicle miles traveled.

The County shall update the County General Plan by no later than January 1, 2030 and shall consider the potential to expand focused growth areas established by the 2007 General Plan and/or the designation of new focused growth areas. The purpose of such expanded/new focused growth areas would be to reduce the loss of natural habitat due to continued urban growth after 2030. The new/expanded growth areas shall be designed to accommodate at least 80% of the projected residential and commercial growth in the unincorporated County from 2030 to buildout.

Mitigation Measure CC-12: Greenhouse Gas Reduction Plan Requirements Beyond 2030

In parallel with the development and adoption of the 2030 General Plan, Monterey County will develop and adopt a Greenhouse Gas Reduction Plan with a target to reduce 2050 GHG emissions by 80 percent relative to 1990 emissions.

At a minimum, the Plan shall establish an inventory of current (2030) GHG emissions in the County of Monterey; forecast GHG emissions for 2050 for County operations and areas within the jurisdictional control of the County; identify methods to reduce GHG emissions; quantify the reductions in GHG emissions from the identified methods; identify requirements for monitoring and reporting of GHG emissions; establish a schedule of actions for implementation; and identify funding sources for implementation.

Significance Conclusion

For buildout within the County beyond the 2030 planning horizon, there are substantial uncertainties as to the technical means to implement reduction of greenhouse gas emissions to levels 80 percent below 1990 levels. Mitigation identified in this chapter requires continuation of the Greenhouse Gas Reduction Plan beyond 2030 as well as adoption of a new General Plan by 2030 that would examine options to focus growth for the period after 2030. These measures would identify feasible means along with state and federal actions that might be able to reduce emissions to 80 percent below 1990 levels, but given that the means to effect such emissions are not known at present, buildout within the County beyond 2030 is determined to make a considerable and unavoidable contribution to cumulative GHG emissions and global climate change

Adverse Effects of Climate Change on Monterey County

Impact CC-2: Development Allowed by the 2007 General Plan May Subject Property and Persons to Otherwise Avoidable Physical Harm in Light of Inevitable Climate Change. (Mitigated to Less Than Considerable)

2030 Planning Horizon and Buildout

Impact of Development with Policies

Existing and new development and the natural environment in Monterey County will be subject to climate change impacts resultant from past, present, and future GHG emissions regardless of the success of local, state, national, or international in reducing future GHG emissions due to the existing concentrations of GHG emissions in the atmosphere and the inevitable additional emissions before GHG reductions plans provide reductions.

Without further planning, current requirements may provide inadequate protection against adverse physical impacts and may not anticipate changed conditions resultant from climate change.

“Scenarios of Climate Change in California: An Overview” (Climate Scenarios report), was published in February 2006 (California Climate Change Center 2006). The Climate Scenarios report uses a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges with temperature increases from 3.0 to 10.5 degrees Fahrenheit. The Climate Scenarios report then presents analysis of future climate in California under each warming range. Substantial temperature increases would result in a variety of impacts to the people, economy, and environment of California. The description of potential impacts for California from this report were used to generally characterize potential impacts to Monterey County, that would include but are not limited to the following:

Sea Level Rise

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the County’s coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude could inundate coastal areas with salt water, accelerate coastal erosion, potentially harm coastal aquifers, and disrupt coastal wetlands and natural habitats.

Agriculture

Agriculture, along with forestry, is the sector of the California economy that may be most affected by a change in climate. Regional analyses of climate trends over agricultural regions of California suggest that climate change is already in motion. Over the period 1951 to 2000, the growing season has lengthened by about a day per decade, and warming temperatures have resulted in an increase of 30 to 70 growing degree days per decade, with much of the increase occurring in the spring. Climate change affects agriculture directly through increasing temperatures and rising CO₂ concentrations, and indirectly through changes in water availability and pests (California Climate Change Center 2006).

Crop growth models show that a warming from a low to a higher temperature generally raises yield at first, but then becomes harmful. Possible effects of excessively high temperature include: decreased fruit size and quality for stone fruits, premature ripening and possible quality reduction for grapes, reduced fruit yield for tomatoes, increased incidence of tipburn for lettuce, and similar forms of burn for other crops. From a variety of studies in the literature, photosynthesis increases when a plant is exposed to a doubling of CO₂. However, whether this translates into increased yield of economically valuable plant product is uncertain and highly variable. Also, elevated CO₂ levels are associated with decreased concentrations of mineral nutrients in plant tissues, especially a decrease in plant nitrogen, which plays a central role in plant metabolism. Some crops may benefit in quality from an increase in CO₂ while some crops are harmed by an increase in CO₂. Growth rates of weeds, insect pests, and pathogens are also likely to increase with elevated temperatures, and their ranges may expand (California Climate Change Center 2006).

Over time, new seed varieties could be developed that are better adapted to the changed climate and pest conditions, and entirely new crops may be found to meet pharmaceutical or energy supply needs. However, some of these adaptations may require publicly supported research and development if they are to materialize (California Climate Change Center 2006).

Public Health and Safety

Climate change could affect the health of County residents by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation, heat, and wildfires. The primary concern is not the change in average climate, but rather the projected increase in extreme conditions that are responsible for the most serious health consequences. In addition, climate change has the potential to influence asthma symptoms and the incidence of infectious disease (California Climate Change Center 2006).

Wildland Fire Risk

With climate change, the potential for wildland fires may change due to changes in fuel conditions (transitioning forests to chaparral/grasslands for example), precipitation (longer dry seasons, higher extreme temperatures), and wind (affecting potential spread), among other variables.

Westerling and Bryant (2006) estimated future statewide wildfire risk from a statistical model based on temperature, precipitation, and simulated hydrologic variables. These are conservative estimates because they do not include effects of extreme fire weather, but implications are nonetheless quite alarming. Projections made for the probabilities of “large fires”—defined as fires that exceed an arbitrary threshold of 200 hectares (approximately 500 acres)—indicate that the risk of large wildfires statewide would rise almost 35% by mid-century and 55% by the end of the century under a medium-high emissions scenario, almost twice that expected under lower emissions scenarios. Estimates of increased damage costs from the increases in fire season severity (Westerling and Bryant 2006) are on the order of 30% above current average annual damage costs.

A second study explored, through a case study in Amador and El Dorado Counties, the effects of projected climate change on fire behavior, fire suppression effort, and wildfire outcomes (Fried et al. 2006). Climate and site-specific data were used in California Department of Forestry and Fire Protection (CDF) standard models to predict wildfire behavior attributes such as rate of spread and burning intensity. The study found an increase in the projected area burned (10%–20%) and number of escaped fires (10%–40%) by the end of century, under the drier climate scenarios. However, the less dry model showed little change.

Hydrology/Flooding

At present, it is uncertain whether coastal areas like Monterey County will experience increases, decreases, or no change in precipitation due to climate change. Regional (as in on the scale of Northern California as a whole) climate change modeling shows mild (5 to 10%) increases and decreases in precipitation depending on the climate change scenarios studied (Anderson 2006).

Localized studies of potential changes in storm intensity have not been done for Monterey County. On a broad (California level), there is a potential increase in the severity of winter storms due to climate change (Dettinger 2007). If this were to occur, peak stream flows and flooding may increase the risk of flooding beyond the risk levels currently anticipated in the County.

Water Supplies

While much of California is dependent on the Sierra Nevada snowpack for its water supply (and the snowpack could be heavily altered by climate change), Monterey County is not. Nevertheless, the County's water resources could be altered due to warming which may affect evaporation levels for existing reservoirs (such as Nacimiento and San Antonio reservoirs) and may affect sea levels, resulting in salination of coastal aquifers (although no study of the potential effects have been conducted). As noted above, it is unknown at present whether there may be changes in precipitation within the County due to climate change and thus water supplies could increase, decrease, or stay the same depending on the net effect of climate change.

Natural Ecosystems

Climate changes and increased CO₂ concentrations are expected to alter the extent and character of natural ecosystems. The distribution of species is expected to shift; the risk of climate-related disturbance such as wildfires, disease, and drought is expected to rise; and forest productivity is projected to increase or decrease—depending on species and region. In Monterey County, these ecological changes could have significant implications for fire suppression, public health, and the sustainability of the County's natural ecosystems.

2007 General Plan and Area Policies

Although the 2007 General Plan and Area Plans have numerous policies about flooding, water supplies, habitat protection, and environmental health, there are no specific policies integrating climate change considerations into planning for these subject areas.

Significance Determination

Without further mitigation, development allowed under the 2007 General Plan, as well as existing development, could subject to people and property to otherwise avoidable physical harm related to sea level rise, flooding, agriculture, public health, and natural ecosystems.

The following mitigation measure is recommended for implementation by the County to promote adaptation planning as integral part of advance planning.

Mitigation Measures

Mitigation Measure CC-13: Develop and Integrate Climate Change Preparedness Planning for Monterey County

Monterey County shall prepare and implement a Climate Change Preparedness Plan to prepare proactively for the impacts of climate change to the County's economy and natural ecosystems and to promote a climate resilient community.

A useful guide to climate resiliency planning is *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments*. (The Climate Impacts Group, King County, Washington, and ICLEI – Local Governments for Sustainability 2007), which outlines the following steps:

- Scope the climate change impacts to major County sectors and building and maintain support among stakeholders to prepare for climate change.
- Establish a climate change preparedness team.
- Identify planning areas relevant to climate change impacts.
- Conduct a vulnerability assessment based on climate change projections for the region, the sensitivity of planning areas to climate change impacts, and the ability of communities to adapt to climate change impacts
- Conduct a risk assessment based on the consequences, magnitude, and probability of climate change impacts, as well as on an evaluation of risk tolerance and community values.
- Establish a vision and guiding principles for climate resilient communities and set preparedness goals in priority planning areas based on these guiding principles.
- Develop, select, and prioritize possible preparedness actions.
- Identify a list of important implementation tools
- Develop an understanding of how to manage risk and uncertainty in the planning effort.
- Develop measures of resilience, and use these to track the results of actions over time
- Review assumptions and other essential information to ensure that planning remains relevant to the most salient climate change impacts.
- Update plans regularly.

Potential areas of emphasis for preparedness planning may include risk of wildfires, agricultural impacts, flooding and sea level rise, salt water intrusion; and health effects of increased heat and ozone, through appropriate policies and programs.

Potential implementation steps could include adopting land use designations that restrict or prohibit development in areas that may be

more severely impacted by climate change, e.g., areas that are at high risk of wildfire, sea level rise, or flooding; adoption of programs for the purchase or transfer of development rights in high risk areas to receiving areas of equal or greater value; and support for agricultural research on locally changing climate conditions.

To be effective, preparedness planning needs to be an ongoing commitment of the County. The first plan shall be completed no later than 5 years after the adoption of the General Plan and shall be updated at least every 5 years thereafter.

Significance Conclusion

A certain amount of environmental change is inevitable due to current and unavoidable future increases in GHG emissions worldwide. The extent of such change on a local basis to Monterey County agriculture, water supplies, flooding, natural ecosystems, and environmental health, and other areas is not fully understood at present. With implementation of the policies in the Climate Change Preparedness Plan over time, new development will be resilient to these inevitable changes and would avoid additional physical harm to persons and property resultant from climate change effects. Thus, with mitigation, the 2007 General Plan would not make a considerable contribution to a cumulative impact related to adaptation to climate change effects.

Chapter 5

Alternatives to the 2007 General Plan

5.1 Introduction

In accordance with CEQA Guidelines Section 15126.6, this EIR contains a comparative impact assessment of alternatives to the proposed project. The primary purpose for this section is to provide decision makers and the public with a reasonable degree of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. CEQA Guidelines Section 15126.6 sets forth the following parameters for the analysis of project alternatives:

- an EIR need not consider every conceivable alternative to a project;
- an EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- reasons for rejecting an alternative include:
 - failure to meet most of the basic project objectives;
 - infeasibility; and/or
 - inability to avoid or reduce any of the project's significant environmental effects.

The CEQA Guidelines state that the discussion of alternatives shall focus on alternatives to the project or its location, which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. The feasibility of an alternative may be determined based on a variety of factors including, but not limited to: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control. This section also identifies the environmentally superior alternative. As required by CEQA, if the environmentally superior alternative is the No Project Alternative, this chapter identifies an environmentally superior alternative among the other alternatives.

As stated in Section 3.0, Project Description, the objectives of the 2007 General Plan are to:

- provide direction for growth that supports continued viability of agricultural production and preserves as much of the County's scenic and environmental resources as possible;
- provide decision makers, County staff, and the public with an updated General Plan that accurately reflects the existing physical conditions and constraints in the County and provides a range of comprehensive policies to guide future development based upon those conditions and constraints;
- modify existing land use designations to patterns that accommodate the most-recent population growth, housing, and employment projections in an orderly manner that minimizes environmental impacts as feasible while meeting the County's obligations under California Planning Law to provide housing for all income levels
- direct new development to Community Areas and Rural Centers to facilitate the efficient provision of infrastructure and services while reducing the impacts of population growth, additional housing and employment opportunities on agriculture, water supplies, and environmental resources.
- establish policies that will conserve limited water supplies for current and projected future uses, including urban, rural and agricultural uses
- establish new comprehensive policies and modify existing policies in the existing 1982 General Plan that reflect the latest legal, statutory, scientific, and technical changes and advances; and
- consider advice, concerns, and suggestions regarding future growth and development from all segments of the County population and, to the extent feasible, address these issues through new or modified goals, policies, or land use concepts.
- Support the continued viability of the agricultural industry by allowing routine and ongoing agricultural uses to proceed subject to standard regulations
- Establish the AWCP to facilitate the development of wineries along a corridor in the central and southern Salinas Valley to achieve a balance between the wine-grape production and wine processing capacity within the County.

This Section provides a qualitative analysis of five alternatives to the 2007 General Plan that is intended to provide a relative comparison between the potential impacts of the 2007 General Plan and each alternative. In some cases, the significance conclusion of an impact may be the same under each scenario when compared to the Thresholds of Significance. However, the actual degree of impact may be slightly different.

The discussion provides a numeric comparison of development under each alternative based upon implementation to the Year 2030. The qualitative comparative analysis will focus on the differences between each alternative and GP2007 based upon development to the 2030 planning horizon. This EIR has provided a methodology for determining the date of potential full buildout, and

assumes that could occur by 2092. However, to determine with any precision when full buildout might occur for the other alternatives would be very difficult and entirely speculative. For example, because the GPI alternative requires voter approval of future amendments the County would not be able to predict whether voters would approve future amendments allowing additional growth to accommodate affordable housing. For another example, the EIR certified for the 1982 General Plan assumed that full buildout could have added about 30,000 additional residential units in the County and assumed that would occur at a relatively early date. Yet 25 years later, actual growth has been closer to 6,000 additional units. Basing a comparison on 30,000 would not provide a meaningful analysis to the public or decision-makers. A comparison of full buildout would likely result in a comparison of the dates into the next century when hypothetical buildout would occur, rather than a realistic comparison of the impacts of those alternatives.

The estimates of new residential development to 2030 under the various alternatives are based on two sources. The 1982 General Plan, GPI, and GPU 4 alternatives' estimates reflect the February 2007 report prepared by Bay Area Economics comparing the effects of those three alternatives in anticipation of placing the GPI on the countywide ballot. The GPU3 estimate is derived from applying the historic residential growth rate (based on AMBAG forecasts) to the available land under that alternative. The TOD estimate is, by the nature of the alternative, the same as the 2007 General Plan.

5.2 Description of Alternatives

The principal criteria for selecting the alternatives studied in the EIR are to comply with CEQA, to describe a reasonable range of alternatives that could feasibly accomplish most of the basic project objectives and avoid or substantially lessen one or more of the significant effects of the project, and to ensure that the impact analysis provides sufficient information to the public and public officials to make informed decisions about the 2007 General Plan. An EIR conceivably could analyze an infinite number of alternatives or variations on alternatives. However, CEQA directs EIR preparers to analyze a "reasonable range" of alternatives to the project or project location, including the No-Project alternative.

Monterey County started the process of a comprehensive general plan update in 1999. Since then, there have been multiple versions of a general plan prepared, including a community-based plan prepared as a ballot initiative. This Supplemental EIR examines five alternatives to the 2007 General Plan as presently proposed.

In order to offer decision-makers and the public a comparison of the most recent prior versions of the General Plan update, this EIR examines two alternatives—GPU 3 and GPU 4—that would not otherwise meet all three criteria for being among the range of alternatives. While these two alternatives are potentially

feasible and meet the project objectives, they do not substantially reduce the potential significant effects of the 2007 General Plan.

The five alternatives are listed below with a summary description following the list:

- No Project Alternative (Existing 1982 General Plan)
- 21st Century Monterey County General Plan, February 2004 Alternative (GPU3)
- General Plan Initiative Alternative (GPI)
- 2007 General Plan Alternative (GPU4)
- TOD (Transit-Oriented Development)

The No Project Alternative considers an option to not accept any updates and retain the existing 1982 General Plan. This alternative consists of the 1982 General Plan with an amended Housing Element adopted in 2003. It also includes the existing four Local Coastal Programs (North County Land Use Plan, Del Monte Forest Land Use Plan, Carmel Land Use Plan, and the Big Sur Coast Land Use Plan) and eight Area Plans that are considered subsets of the 1982 General Plan.

The projected level of development under the 1982 General Plan is somewhat uncertain. The 1982 General Plan's EIR estimated that it would accommodate up to 63,735 new dwelling units. More recently, the 2007 report prepared for the Monterey County Board of Supervisors comparing the GPI to the 1982 General Plan estimated that future development would total 13,570 new residential units. (Bay Area Economics 2007)

The focus of growth under the 1982 General Plan is in urban areas (cities). New residential growth is to be concentrated in areas already committed to a degree of residential development and provide for an adequate level of services. Much of this would occur at low or rural density. The Plan also designates four "Area of Development Concentration Study Areas" and establishes an urban reserve overlay area, which would be developed through annexation to an incorporated city. There are ten Special Treatment Areas (STAs) identified in the 1982 General Plan.

GPU3 is the third version of a comprehensive General Plan Update. This version was considered, but not adopted, by the Board of Supervisors in 2004. A Draft EIR was prepared and circulated for this document but not certified. GPU3 consolidates the four Local Coastal Programs into a single new Coast Area Plan. The county's eight Area Plans are incorporated into GPU3, but are amended with their own sets of vision statements, policies, and goals. Estimated new residential development under GPU3 to the 2030 horizon year is 13,675 residential units.

GPU3 establishes eight Community Areas as targets for urban growth. These are unincorporated communities that have already begun to develop at urban

densities, or have been planned for urban development for many years. These include Boronda, Castroville, Pajaro, a portion of Fort Ord, Rancho San Juan, Pine Canyon, San Lucas, and an expanded area of Rancho San Juan. Pine Canyon and the expanded area of Rancho San Juan would be developed in a second phase of Community Plan development. There are also 18 Rural Centers identified in this alternative that could ultimately be converted to Community Areas in the future, based upon a tiered system of phased growth. Policies establishing an agricultural wine corridor are proposed as part of this alternative. GPU3 included 16 Special Treatment Areas or "STAs" (including the 10 existing STAs from the 1982 General Plan).

GPI is a proposed General Plan Initiative that was placed on the June 2007 countywide ballot, but did not pass. It amends part of the existing 1982 General Plan (primarily Chapter IV Area development, and the 2003–2007 Housing Element as well as the North County Coastal Land Use Plan and sections of each of the inland area plans). The remaining coastal plans would not be amended. Estimated new development under the GPI to the 2030 horizon year is 13,973 residential units. (Bay Area Economics 2007)

The GPI limits all new growth in the unincorporated area to five Community Areas: Boronda, Castroville, Pajaro, East Garrison portion of Fort Ord, and Chualar. Growth in Chualar is limited to 100 acres. No Rural Centers would be created. Subdivisions outside Community Areas are significantly constrained. A net increase in lots would require voter approval of a separate countywide initiative. Property owners are permitted to construct single-family residences on legal lots of record.

GPU4 is the 2006 General Plan update adopted by the Board of Supervisors in January 2007. It makes no changes to any of the Local Coastal Programs. GPU4 establishes 6 Community Areas and 11 Rural Centers in locations where populations have developed over the past 20 or more years. GPU4 also proposes 17 Special Treatment Areas (including the 10 existing STAs in the 1982 General Plan) totaling 7,832 acres, plus three Study Areas to be evaluated for possible future designation as STAs. A separate agricultural wine corridor plan (ACWP) would be enacted in conjunction with GPU4.

The estimated development of new residential units under GPU4 to the 2030 planning horizon year is 16,900 dwelling units. (Bay Area Economics 2007)

TOD is an alternative that focuses new development along existing and future transportation corridors. These corridors would be served by high-capacity and high-frequency public transportation. Public transportation in this alternative includes fixed-route bus service, rail, express bus service and Bus Rapid Transit (BRT). Development in these corridors would be concentrated at "nodes" adjoining public transportation stations.

Under the TOD Alternative, new development outside the Community Areas, Rural Centers, and AHOs would be restricted to the first single-family home on existing legal lots of record in the North County, Greater Monterey Peninsula

(along the Route 68 corridor only) Greater Salinas, and Toro (along the Route 68 corridor) Area Plans. The Bradley and Lockwood Rural Centers would be considered third tier development priority areas. They would not be developed until the transit system is funded and built to King City. Otherwise, this alternative would share the same policies as the 2007 General Plan. Areas subject to subdivision restrictions would be designated as “sending” sites under a Transfer of Development Rights (TDR) program, with cities, Community Areas, Rural Centers, and AHOs identified as “receiving” areas. In effect, development credits could be transferred from the sending areas to the receiving areas, resulting in more intense development at the latter.

Table 5-6, Summary of 2007 General Plan Alternatives, in the discussion of the Environmentally Superior Alternative that follows compares the relative impacts of the alternatives to the impacts of the 2007 General Plan.

5.2.1 Growth Projections under the Alternatives

The residential growth projections to 2030 for most of the alternatives are taken from the 2007 Bay Area Economics report *Analysis of Monterey County General Plans and Quality of Life Initiative* prepared for the County Board of Supervisors. The two exceptions are the GPU3 and TOD alternatives.

Growth to 2030 under GPU3 is estimated on the basis of the 10,567 dwelling units described as potential development in the draft of GPU3 before the Board of Supervisors added more Community Areas, with an additional increment added to conservatively estimate the residential units that might be allowed in the additional Community Areas and un-built lots. This additional 28 percent increment is based on the ratio of development potential for the 2007 General Plan under full buildout to the development potential in 2030.

The Alternatives impacts are not individually analyzed at buildout in 2092. The method of estimating 2092 growth for the 2007 General Plan has been to apply the historic growth rate (expressed in housing units per year) within the unincorporated area of the county. Using this approach, each of the alternatives would add 25,903 residences by 2092. As a result, the relative degree of impact when the alternatives are compared to one another would remain essentially the same as during the 2030 planning horizon.

5.3 No Project Alternative—Existing 1982 General Plan

5.3.1 Description

Under this alternative, the existing 1982 General Plan would be retained as the County’s blueprint for growth. No land use designations would change, and it is assumed that existing undeveloped lots of record ultimately would be built out to their highest use, as envisioned by the 1982 General Plan land use map. The 1982 General Plan is designed to encourage growth in the 12 incorporated cities. The 1982 General Plan includes the STA overlay that allows for unique land use concepts that reflect site-specific constraints or features. Ten STAs are included in the 1982 General Plan and the Rancho San Juan Area of Development Concentration Study Area. In comparison, the 2007 General Plan would establish five Community Areas and seven Rural Centers where populations have developed over the past 20 or more years, while also encouraging growth in the cities.

The 1982 General Plan does not include an Agricultural Winery Corridor, and the development of wine-related facilities would continue in accordance with current practices.

5.3.1.1 Development Comparison-

A comparison of potential new residential development between the existing 1982 General Plan (as amended) and the 2007 General Plan over the planning horizon of 2030 is provided in Table 5-1. Implementation of the 1982 General Plan would result in about 130 more dwelling units than development of the 2007 General Plan to the 2030 planning horizon. For all intents, implementation of the two plans would be approximately the same.

Table 5-1. Comparison: No Project Alternative and Proposed Project to 2030

Category	Existing 1982 General Plan	2007 General Plan	Difference* (No Project vs. 2007 General Plan)
Residential	13,570 dwelling units	13,420 dwelling units	130more dwelling units

* Difference in projected new dwelling units is based on the difference between the estimated housing units within the unincorporated County from 2005 to 2030 for the No Project Alternative and from 2006 to 2030 for the 2007 General Plan.

Source: Bay Area Economics. 2007. *Analysis of Monterey County General Plans and Quality of Life Initiative*. February; Association of Monterey Bay Area Governments (2004).

The difference in development potential between the two plans, as well as the difference in goals and policies, will serve as the basis for the analysis of the 1982 General Plan (No Project) alternative. The analysis below is based in part upon the *Analysis of the Monterey County General Plans and Quality of Life Initiative* prepared by Bay Area Economics and dated February 2007.

5.3.2 Environmental Effects

5.3.2.1 Land Use

The existing land use pattern provided in the 1982 General Plan and subsequent amendments would remain in effect. Although not designated as Community Areas per se, the communities of Pajaro, Boronda, and Castroville are designated for high-density residential, commercial, and industrial uses and could proceed consistent with 1982 General Plan policies. Also, the Specific Plans adopted for Fort Ord and Rancho San Juan (Butterfly Village) could proceed in accordance with those plans. As required under State Planning Law (Government Code Section 65300 et seq.), the 1982 General Plan provides for future development to meet anticipated growth. Overall, impacts under the No Project Alternative would be significant and unavoidable.

The 2007 General Plan provides more specific and extensive development policies than the 1982 General Plan. The 1982 General Plan does not include a designation for Rural Centers; however, these areas would remain subject to the policies of the plan with respect to maintaining low densities and provision of services. In contrast, the 2007 General Plan would allow development at a density of 1 to 5 residential units per acre, or up to 10 to 15 units per acre if processed as part of an Affordable/Workforce Housing Incentive Program. The 2007 General Plan would also establish Affordable Housing Overlays(AHOs) allowing higher densities in selected areas. Both plans require that adequate water and wastewater facilities be provided concurrently with development. The 2007 General Plan also states that Rural Centers should have a commercial focal point, and expansion of Rural Centers may be considered only after preparation of a Capital Improvement and Financing Plan.

Accordingly, because, the 2007 General Plan establishes more detailed policies specifying where new growth would be directed and has more specific policies guiding activities for Commercial, Industrial, Agricultural, and Open Space land

use, there is greater assurance that land use conflicts can be avoided or reduced under the 2007 General Plan.

As such, the more detailed policies contained in the 2007 General Plan would better prevent adverse land use impacts such as division of established communities or conflicts with adopted land use plans than would the 1982 General Plan. Therefore, the 1982 General Plan would have greater impacts on land use than the 2007 General Plan.

5.3.2.2 Agriculture Resources

The 1982 General Plan is generally protective of agricultural uses, discouraging “premature and scattered development” and providing that growth areas will be designated only where adequate levels of urban services and infrastructure can be provided. In addition, it includes policies calling for the prevention of non-agricultural uses that could interfere with normal agricultural operations and the establishment of permanent, well-defined buffer areas as part of new non-agricultural development proposals located next to agricultural uses. The buffer areas are to be dedicated in perpetuity and sufficiently large to protect agricultural operations from incompatible development. The 1982 General Plan limits the subdivision of viable, important farm land to divisions necessary to agricultural purposes or when demonstrated to not be detrimental to the agricultural viability of adjoining parcels. The 1982 General Plan also provides that the County is to make every effort to preserve, enhance, and expand viable agricultural uses on important farmland. Nonetheless, the growth projected under the No Project Alternative would convert substantial amounts of farmland to urban uses. This is a significant and unavoidable impact.

The 2007 General Plan contains more specific policies intended to channel development into existing cities, Community Areas, and Rural Centers, in that order. The policies of the 2007 General Plan would focus growth into higher density Community Areas as the first tier for new development, with subsequent growth in Rural Centers (second tier for new development). The 2007 General Plan also provides for agricultural buffers and identifies specific criteria by which to establish those buffers, but does not require that all buffers be permanent or dedicated in perpetuity. Other policies state that agriculture is to be the “the top land use priority for guiding future economic development on agricultural lands” and require the County to establish a program that requires mitigation for the conversion of important farmland that is to be annexed to cities, with specified exceptions. The 2007 General Plan also establishes policies intended to avoid regulatory constraints on “routine and ongoing agricultural activities.” This is meant to encourage continued agricultural activities. Along this line, the ACWP would authorize wineries within its boundaries that would enhance tourism and provide additional income to wine grape growers.

The existing 1982 General Plan, because of its more generalized policy approach would have slightly greater impacts on agriculture resources than the 2007 General Plan, which directs future development to cities or specifically identified

growth areas and requires a mitigation program for annexing important farmlands. Although the 1982 General Plan has a stronger buffer policy (requiring permanent buffers), the policy in the 2007 General Plan is more detailed with regard to the requirements for buffer areas, compensation for loss of agricultural lands and a stronger provision with respect to preventing the subdivision of agricultural lands for non-agricultural purposes. Furthermore, the 2007 General Plan has incentives for the continuation of agricultural uses including numerous policies in the Agricultural Element. Accordingly, the 1982 General Plan would have greater impacts on agricultural lands than the GP2007.

5.3.2.3 Water Resources

The existing 1982 General Plan contains general policies intended to protect water quality and avoid groundwater overdraft. This includes a policy prohibiting “water consuming development in areas which do not have proven adequate water supplies.” The 1982 General Plan lacks goals and policies that stipulate additional erosion control requirements, water conservation measures, or the preparation of a drainage design manual, all of which are found in the 2007 General Plan. The impact would be significant and unavoidable.

The potential effects of the 1982 General Plan on groundwater overdraft would appear to be greater than 2007 General Plan. Although the 1982 General Plan contemplates about the same level of new development during the planning period as the 2007 General Plan, the 1982 General Plan does not include provisions for requiring a sustainable water supply prior to development.

The effects of implementation of the 1982 General Plan would be greater than those of the 2007 General Plan with regard to soil erosion and sedimentation from construction and agricultural land use activities, wastewater disposal (i.e., septic tanks), groundwater overdraft, seawater intrusion, well competition and interference, and levee and dam failure. All of these are existing significant problems that are not addressed in the 1982 General Plan at the level of policy detail found in the 2007 General Plan. In addition, the 2007 General Plan includes several sections in the Public Services Element and Open Space Element that specifically address water quality protection, water consumption, long term water supply, and erosion protection that are not in the 1982 General Plan. Therefore, the 1982 General Plan would have more impacts on water resources than the 2007 General Plan.

5.3.2.4 Geology, Soils, and Seismicity

The existing 1982 General Plan moderates the exposure of persons and property to geologic, soil, and seismic hazards through policies requiring geologic and soils reports prior to subdivision of land and in areas of potential instability. The 2007 General Plan contains more specific and extensive policies that would avoid substantial adverse effects, such as the establishment of a Geologic

Constraints and Hazards Database to identify hazardous areas. Therefore, potential adverse impacts on geology, soils, and seismicity from the 1982 General Plan would be greater than those of the proposed 2007 General Plan.

5.3.2.5 Mineral Resources

Oil production in the southern Salinas Valley and South County is the only mineral resource extraction activity that may be affected by development and land use activities. Economic conditions and legal constraints make it highly unlikely that either the existing 1982 General Plan or the proposed 2007 General Plan would result in the premature termination of oil extraction operations in these areas. Therefore, the 1982 General Plan Alternative would have a less-than-significant effect on mineral resources, as would the 2007 General Plan.

5.3.2.6 Transportation

The existing 1982 General Plan includes general policies encouraging land use patterns that would reduce the need for driving and requiring proposed development to remain “within an acceptable level of service.” The 1982 General Plan does not include any mechanism to require that new development activities fund transportation improvements necessitated by the traffic generated by those activities. As a result, the traffic impacts resulting from the No Project Alternative would be significant.

The 2007 General Plan would establish, with specific exceptions, LOS D as the standard for maximum allowable congestion within the County. The proposed policies would include a commitment to prepare Capital Improvement and Facilities Plans, by benefit area, to finance road improvements. The proposed policies include a prohibition on projects that would result in congestion exceeding LOS D unless improvements are being installed concurrently. Nonetheless, there will be significant impacts on road congestion.

All of the roadways contemplated as AWCP corridors currently operate at acceptable levels of service. The AWCP would accelerate the current pace of development of wine-related facilities, which would result in a corresponding increase in traffic. Absent new wineries, grape production would continue to be exported out of the County creating regional truck traffic during certain times of the year. The AWCP would not eliminate this traffic, but would contain it locally, thus reducing trip lengths. The AWCP would also generate new visitor traffic along the corridor, but that traffic would occur outside the wine industry’s peak periods. Such local traffic would not be expected to be substantial enough to cause roadway performance to operate at deficient levels.

The No Project scenario represents buildout of the County to the year 2092 under the 1982 General Plan currently in effect. Table 4.6-24 earlier compared the housing, population and employment forecasts between the 1982 and 2007

General Plans. The comparison indicated that buildout of the 2007 General Plan would result in a net increase in daily trips greater than what would be generated at buildout of the 1982 General Plan. Therefore the LOS impacts of buildout of the 2007 General Plan would be greater than those of the 1982 General Plan.

The absence of a fee or mechanism from the 1982 General Plan is expected to result in deficient roadway performance conditions that will worsen with future development activities. The absence of the regional and local fee mitigation measures as well as the increased development and sprawl potential of the 1982 General Plan would lead to the conclusion that the potential adverse impacts on transportation from the 1982 General Plan would be greater than those of the 2007 General Plan.

5.3.2.7 Air Quality

The North Central Coast Air Basin, which includes Monterey County, is not in attainment for the state ozone (O₃) standard. The existing 1982 General Plan includes general policies that encourage development to meet air quality standards. However, these policies are not sufficient to avoid a significant effect on air quality from implementation of the No Project Alternative.

In comparison, the 2007 General Plan contains policies that are consistent with the air quality objectives of the North Central Coast Air Basin 2004 Air Quality Management Plan (AQMP). Moreover, the 2007 General Plan's policies requiring a Traffic Impact Fee and linking occupancy of new development to related roadway improvements would significantly reduce idling on roadways, which would result in a corresponding reduction in adverse air quality impacts. Additionally, future wineries under the ACWP would introduce new sources of air emissions. These would be subject to permitting by the Monterey Bay Unified Air Pollution Control District.

The combination of a lack of transportation improvement mechanisms, and absence of more specific air quality protection policies in the 1982 General Plan would result in potential adverse impacts on air quality greater than those of the proposed 2007 General Plan.

5.3.2.8 Noise

The existing 1982 General Plan includes general policies requiring new construction to meet noise standards established in the General Plan and to be enforced through a future noise ordinance. This includes conformity between new development and noise limits established in the 1982 General Plan. The increase in development that would be allowed under the No Project Alternative would result in a significant and unavoidable noise impact, particularly along major roads.

The proposed 2007 General Plan similarly establishes policies and would be implemented through a future noise ordinance. The 2007 General Plan contains policies establishing the contents of the noise ordinance. Its policies also set out standards for requiring acoustical and vibration analyses as part of the environmental review process for projects.

Both the 1982 General Plan and the proposed 2007 General Plan would increase exposure of residents to noise by virtue of allowing additional growth within the County. The 2007 General Plan's policies address noise impacts more comprehensively than do the policies in the 1982 General Plan. Accordingly, potential adverse noise impacts from implementation of the 1982 General Plan would be somewhat greater than those of the 2007 General Plan.

5.3.2.9 Biological Resources

Implementation of the existing 1982 General Plan would result in development with significant impacts on sensitive habitats, wetlands, riparian areas, wildlife movement, and tree preservation. The current trend of conversion of grazing lands, which provide wildlife habitat, to intensive agricultural cultivation, which provides little habitat value, would continue. The policies of the 1982 General Plan encourage the conservation and maintenance of native plant communities near new development and promote the conservation of large contiguous areas of native vegetation to provide wildlife habitat. The policies also call for careful planning of areas that are of value to wildlife to maintain that habitat. Nonetheless, the No Project Alternative would result in extensive new development that would have a significant and unavoidable impact on biological resources.

In comparison, the proposed 2007 General Plan would not substantially increase the rate of conversion of grazing land to more intensive agricultural uses, however, the 1982 General Plan Area Plans have more restrictive policies regarding the conversion of land on steep slopes. Additional policies are proposed in the 2007 General Plan to inventory natural habitats, avoid state and federally listed wildlife species, including designated federal critical habitat, and evaluate and mitigate impacts on special status species or their critical habitat that are not included in the 1982 General Plan. The 2007 General Plan also contains a policy committing the County to develop and implement a future program for mitigating the loss of critical habitat as a result of new projects. Mitigation of losses would also be required under state and federal law. The 1982 General Plan and 2007 General Plan would be somewhat comparable on balance with respect to impacts on biological resources; however, with the imposition of the mitigation measures proposed in this EIR with respect to special status species, kit fox habitat mitigation, stream setbacks, oak woodland protection and raptor protection, the 1982 General Plan would have greater impacts to biological resources than the 2007 General Plan.

5.3.2.10 Cultural Resources

The existing 1982 General Plan includes policies that encourage the conservation of historical resources, including the preparation of a historic inventory. There are no policies for the protection of archaeological or paleontological resources. However, state law is protective of archaeological resources to the extent that it requires consultation with appropriate Native American representatives and proper reburial in the event of the discovery of Native American human remains. Under the current General Plan, protection relies primarily on CEQA compliance. Absent a comprehensive approach, the 1982 General Plan would result in significant effects on archaeological and paleontological resources.

In comparison, the proposed 2007 General Plan includes specific policies to inventory resources, survey in sensitive areas, and protect important representative and unique archaeological sites and features. Similar policies are included in the 2007 General Plan relative to paleontological resources. In addition, the 2007 General Plan contains policies to encourage the conservation of Native American cultural sites, sacred places, and burial sites, including provisions for consultation with tribal representatives. The 2007 General Plan would be more protective of these resources; therefore, the 1982 General Plan would have a greater impact on cultural resources.

5.3.2.11 Public Services and Utilities

Implementation of the existing 1982 General Plan would result in adverse impacts from new or expanded fire protection, sheriff's protection, schools, libraries, medical facilities, wastewater, and solid waste facilities. The 1982 General Plan does not provide for concentrating new development within the unincorporated County within Community Areas and Rural Centers. If desired levels of services were to be maintained, more facilities, albeit smaller, might be required than under the proposed 2007 General Plan. Domestic water supplies are limited in several areas of the County, including the Monterey Peninsula and Pajaro area. The 1982 General Plan includes policies encouraging coordination among water service providers to assure that groundwater is not overdrafted, prohibiting water-consuming development in areas that do not have proven adequate water supplies, and requiring new development to connect to existing water suppliers, where feasible. The 1982 General Plan has not been effective in avoiding this significant effect.

The 2007 General Plan, in comparison, would result in the same impacts from new or expanded services and infrastructure.

With respect to potable water supply, the 2007 General Plan includes policies for the development of a Hydrologic Resources Constraints and Hazards Database to assist in managing conservation and water quality improvement. Additional 2007 General Plan policies will require that all projects be designed to increase the site's predevelopment absorption of rainfall and to recharge groundwater

where appropriate, and to require the management of construction of impervious surfaces in important groundwater recharge areas through discretionary permits. Therefore, potential adverse impacts on potable water supply from the 1982 General Plan would be greater than those of the proposed 2007 General Plan.

5.3.2.12 Parks and Recreation

The existing 1982 General Plan contains policies that encourage park planning, the equitable distribution of County parks, the formation of a self-supporting park system, and facilitating the acquisition and operation of community parks by other agencies. The development of future parks will result in impacts such as traffic, noise, and lighting, depending upon the location and recreational opportunities provided. Parks tend to be built in urbanized areas, so their impacts are not expected to be significant. However, the No Project Alternative would not provide adequate levels of new parks. This would have a significant effect through overuse of existing facilities.

By comparison, the 2007 General Plan includes additional policies, including the establishment of Adequate Public Facilities and Service standards, that will be used to obtain park and recreation facilities along with residential subdivisions and require that Community Area Plans identify adequate park and recreation facility sites. These standards do not, however, establish a specific level of service for parks and recreation facilities, which weakens their effectiveness. The potential adverse impacts on parks and recreation from the 1982 General Plan would be the same as those of the 2007 General Plan. However, Mitigation Measure PAR-1 in this EIR would require the County to enact a general policy establishing a ratio for acreage to population. This would make the impacts of the 1982 General Plan greater than those of the project.

5.3.2.13 Hazards and Hazardous Materials

The existing 1982 General Plan does not contain policies that avoid potential impacts from hazardous materials, emergency response, and wildland fire protection. As a result, the No Project Alternative would have a significant effect in these areas of concern.

The 2007 General Plan contains new goals and policies to address these areas, including extensive policies concerning fire hazards and emergency preparedness. Therefore, the 1982 General Plan has greater adverse impacts on hazards and hazardous materials relative to the proposed 2007 General Plan.

5.3.2.14 Aesthetics, Light, and Glare

The existing 1982 General Plan does not contain explicit policies that would reduce aesthetic impacts from implementation. Visual character and light and

glare would experience significant adverse impacts as a result of development under the 1982 General Plan.

In comparison, the 2007 General Plan includes general policies intended to reduce the impacts of development within designated visually sensitive areas. Additional policies restrict ridgeline development, encourage transfer of development rights to direct development away from areas with unique visual features, encourage new development to direct lighting away from sensitive neighbors, and commit to mapping of visually sensitive resources to assist in reducing impacts. New wine-related facilities would alter the visual character of agricultural areas and would introduce new sources of light and glare in those rural areas.

In either case, new development will result in a significant effect from increased light and glare. Because it would not provide protective policies, the aesthetic, light, and glare impacts of the 1982 General Plan would be greater than those of the 2007 General Plan.

5.3.2.15 Population and Housing

The existing 1982 General Plan is a local land use plan that prescribes where and at what intensity future growth will occur. Pursuant to state law, it must provide opportunities for future residential growth to meet anticipated residential demand. As such, the No Project Alternative would induce future growth and result in a significant effect. To the extent that development would displace existing residents, the requirements of state law (Government Code Section 7260, et seq.) would apply to limit the adverse effects.

Neither the No-Project Alternative nor the 2007 General Plan is expected to result in the displacement of substantial numbers of dwelling units or persons. Therefore, the 1982 General Plan's impacts on population and housing would be essentially the same as those of the proposed 2007 General Plan.

5.3.3 Conclusion

The No Project Alternative (Existing 1982 General Plan) would preserve the existing land use patterns, continue existing policies, and maintain the current development potential for the unincorporated areas of the County. This would result in greater environmental impacts as compared to the 2007 General Plan on land use, agricultural resources, water resources, geology and soils, transportation, air quality, noise, biological resources, cultural resources, public services, parks and recreation, hazardous materials, and light and glare. Impacts of the two plans with respect to mineral resources and population and housing are largely the same. With adoption of the proposed mitigation measure for parks and biological resources, the 2007 General Plan would have less impact on parks

and recreation and biological resources than the 1982 General Plan (No-Project Alternative).

The No Project Alternative does not meet any of the objectives of the 2007 General Plan because it maintains the existing 1982 General Plan and does not update its policies or land use map to account for changing economic conditions, land use patterns, socioeconomic changes, or technological advancements.

5.4 21st Century Monterey County General Plan, February 2004 Alternative (GPU3)

5.4.1 Description

The 21st Century Monterey County General Plan February 2004 Alternative (GPU3) is a version of Monterey County's effort to update the existing 1982 General Plan; it was considered but ultimately not adopted by the Monterey County Board of Supervisors.

GPU3 employs the Community Area concept that is incorporated into the 2007 GPU with a few differences. GPU3 establishes eight Community Areas: Boronda, Castroville, Fort Ord (Specific Plan area), Pajaro, Pine Canyon (King City), 4,000 acre Rancho San Juan, Rancho San Juan Expansion, and San Lucas. Growth in Boronda, Castroville, and Pajaro would be facilitated by redevelopment activities, while entirely new communities would be established at Ford Ord and Rancho San Juan. These five areas would be where most of the initial Community Area growth would be concentrated. The Pine Canyon (King City), San Lucas, and Rancho San Juan Expansion Community Areas would be developed later in the life of GPU3 (second phase).

In GPU3, future growth, though on a limited basis, would also occur in areas designated as Rural Centers. Under GPU3, 18 Rural Centers would be designated under a three-tier system. Tier I areas are Rural Centers that could ultimately be converted to Community Areas. There are two Tier I Rural Centers: Bradley and San Ardo. Tier II areas are Rural Centers that could potentially support infill and limited subdivision within their boundaries once infrastructure improvements are completed. The nine Tier II Rural Centers are Aromas, Chualar, Del Monte Forest, Las Lomas, Lockwood, Moss Landing, Mouth of Carmel Valley, Pleyto, and Prunedale. Tier III Rural Centers are areas that are built out and areas where there is no local interest for new subdivisions or intensification of existing land uses. The seven Tier III Rural Centers are Carmel Highlands, Carmel Valley Village, Corral de Tierra/San Benancio, Mid-Carmel Valley, River Road, Spreckles, and Toro Park.

GPU3 includes an Affordable Housing Overlay designation to promote the development of affordable housing. The overlay designation in GPU3 allows for

higher densities (10 to 30 dwelling units per acre) than would otherwise be allowed by the land use designation and zoning requirements. To take advantage of the overlay designation, 100% of a proposed residential development must meet affordability requirements to facilitate the co-location of jobs and housing. The overlay has a potential to apply to 27,891 acres and would be implemented in two phases. Phase I consists of a total overlay potential of 12,285 acres in the following areas: Greater Monterey Peninsula along Highway 68, Lower Carmel Valley, Fort Ord, Rancho San Juan, and Boronda. Phase II consists of a total overlay potential of 6,876 acres in the following areas: Castroville, Pajaro, Pine Canyon (King City), San Lucas, Aromas, Pleyto, Moss Landing, River Road, San Ardo, San Benancio/Corral de Tierra, Spreckles, and Toro Park.

In addition, GPU3 includes a STA overlay to allow for unique land use concepts that reflect site-specific constraints or features. Ten STAs were originally included in the existing 1982 General Plan, and six more (for a total of sixteen) are proposed in GPU3.

GPU3 includes Winery Corridor policies that are similar to the AWCP proposed as part of the 2007 General Plan. Both plans divide the corridor into three segments. The number of wine-related facilities permitted within the corridor was established in the GPU3 Draft EIR. As a result, differences between the two plans are relatively minor and pertain primarily to implementation. Differences include the following: GPU 3 would authorize up to 8 bed and breakfasts associated with wineries, while the 2007 General Plan would instead authorize up to 8 inns. GPU 3 would allow up to 40 single-family homes and an additional 40 guest houses among the wineries; the 2007 General Plan would allow up to 50 single-family homes, 50 guest houses, and 150 workers' residences. Regarding residences, the Monterey County zoning ordinance (Chapter 21.30) actually has a more liberal policy for other farmland properties, authorizing up to three single-family residences, one guest house, and five residences for farmworker families (or housing for up to 12 workers in a group residence) on any parcel.

Finally, GPU3 amends the four Land Use Plans that are part of the four Local Coastal Programs in effect in Monterey County (North County Land Use Plan [includes Moss Landing Community Plan], the Del Monte Forest Land Use Plan, the Carmel Land Use Plan, and the Big Sur Coast Land Use Plan) and consolidates them under a new Coast Area Plan. Amendments to the Local Coastal Programs would be subject to review and final approval by the California Coastal Commission.

5.4.1.1 Development Comparison

A comparison of development potential between GPU3 and the 2007 General Plan during the 2030 planning horizon is provided in Table 5-2. In comparison to projected growth under the 2007 General Plan during the planning horizon, implementation of GPU3 would result in 3,650 fewer new dwelling units.

Table 5-2. Comparison: GPU3 and Proposed Project (2030)

Category	GPU3	2007 General Plan	Difference* (GPU3 vs. 2007 General Plan)
Residential	13,675 dwelling units	10,015 dwelling units	3,650 more dwelling units

*Difference in projected dwelling units is based on the difference between the estimated housing units within the unincorporated County from 2005 to 2030 for GPU3 and from 2006 to 2030 for the 2007 General Plan.
 Source: Association of Monterey Bay Area Governments (2004).

The difference in development potential between the two plans, as well as the difference in goals and policies, will serve as the basis for the analysis of the GPU3 alternative.

5.4.2 Environmental Effects

5.4.2.1 Land Use

GPU3 provides for substantial growth during its planning horizon. It would provide for growth beyond existing development levels in the Rancho San Juan area and 18 designated Rural Centers that would result in conflicts with nearby land uses. In addition, the Affordable Housing Overlay would allow higher density development in low-density residential and agricultural areas covering up to 27,891 acres, creating the potential for land use conflicts. As a result, GPU3 would have a significant effect on land use.

In comparison, the 2007 General Plan limits development in Rancho San Juan to the approved Butterfly Village and provides for seven Rural Centers. The 2007 General Plan would designate Chualar as a Community Area, allowing urbanization, but otherwise does not have as expansive an urban development pattern as proposed under GPU3. The proposed 2007 General Plan would require an Infrastructure and Financing Study to ensure that growth is properly served with utilities and public services. Growth outside of Community Areas and rural centers would be subject to a residential Development Evaluation System that will be provide a “pass-fail” system of ensuring the development has sufficient services. As a result, although the potential for significant land use impacts is not eliminated by the policies of the 2007 General Plan, it is less than under GPU3.

GPU3 also contains policies designed to limit the unmitigated expansion of cities. GPU3 sets forth a policy that the County will oppose City annexation requests if housing development outpaces job growth and roadway impacts are not properly mitigated. This set of policies may reduce many potential land use impacts from city growth on unincorporated county lands.

Overall, GPU3 envisions substantially more growth than the 2007 General Plan and proposes to accommodate it through a variety of approaches. In terms of

development potential, GPU3 would accommodate 3,650 more new dwelling units than the 2007 General Plan. While GPU3 does contain a rigorous annexation policy that would address city-county land use conflicts, this would not fully address the land use conflicts created in the unincorporated county because of the number of Rural Communities established. In addition, GPU3-proposed amendments to the coastal zone land use plans have the potential to create land use conflicts with the Local Coastal Program. Therefore, GPU3 would have greater impacts on land use than would the 2007 General Plan.

5.4.2.2 Agriculture Resources

Development and land use activities contemplated by GPU3 would result in the conversion of approximately 32,900 acres of Important Farmland. Most of this loss of farmland would occur as a result of the Affordable Housing Overlay, which would affect as much as 27,900 acres. Additional losses would be incurred with development of the 18 Rural Centers and the 4,000-acre Rancho San Juan. GPU3's policy regarding city annexation could indirectly limit the loss of Important Farmland by slowing city growth; however, this policy would only partially offset the conversion within unincorporated areas. Overall, GPU 3 would have a significant effect on agricultural resources.

In comparison, urban development proposed as part of the 2007 General Plan would result in a loss of approximately 5,500 acres of Important Farmland. Therefore, GPU3 would have greater impacts on agriculture resources than would the 2007 General Plan.

5.4.2.3 Water Resources

GPU3 would have significant impacts on soil erosion and sedimentation from construction and agricultural land use activities, wastewater disposal (i.e., septic tanks), groundwater overdraft, seawater intrusion, well competition and interference, and levee and dam failure. GPU3 would prohibit development in 100-year flood plains, establish a Comprehensive Integrated Water Management Plan, require long-term water supplies for new development, and expand the Watershed Permit Coordination Program. GPU3 also has strong policies protecting water resources in the Coastal Areas. GPU3 shares with the 2007 General Plan an increased demand on groundwater resources and potential for exacerbating overdraft conditions. It is unlikely that these policies would be sufficient to solve the water supply and overdraft problems identified in this EIR and therefore, GPU 3 would have a significant and unavoidable impact.

The 2007 General Plan policies, with the exception of the long-term sustainable water requirement, are less stringent. However, the proposed 2007 General Plan would restrict development in floodplains, limits development where there is no long-term sustainable water supply, and would establish groundwater overdraft monitoring systems. It is therefore likely that, on balance given the greater

development potential under GPU3, the significance level of potential GPU3 overall impacts on water resources would be similar to those of the 2007 General Plan.

5.4.2.4 Geology, Soils, and Seismicity

GPU3 includes specific policies that reduce geologic risk by limiting development near fault zones, requiring geologic reports in areas identified as having geologic hazards or constraints, and requiring geotechnical reports for subdivisions in areas of risk. These policies, in concert with building codes and the County Erosion Control Ordinance (Chapter 16.12 of the Monterey County Code), would avoid a significant effect on the environment.

The 2007 General Plan has similar policies to minimize geologic risk and would also work with existing County building codes and ordinances to minimize soil erosion. Based on its greater development area (eight Community Areas and 18 Rural Centers), GPU3 has the potential to expose more persons and property to geologic, soil, and seismic hazards than does the proposed 2007 General Plan. Therefore, potential GPU3 impacts on geology, soils, and seismicity would be greater than those of the 2007 General Plan.

5.4.2.5 Mineral Resources

Oil production in the southern Salinas Valley and South County is the only mineral resource extraction activity that may be affected by development and land use activities contemplated by GPU3. Economic conditions and legal constraints make it highly unlikely that GPU3 would result in the premature termination of oil extraction operations in these areas. Therefore, GPU3 would have the same impacts on mineral resources as those of the proposed 2007 General Plan.

5.4.2.6 Transportation

GPU3 establishes a standard of LOS C for County roads outside Community Areas. If successfully implemented, this would result in less congestion than the proposed 2007 General Plan, which would adopt LOS D as the standard. However, in order to maintain traffic flow at LOS C, extensive road widening would be needed. The widening would likely result in significant indirect effects on noise, biology, agricultural land conversion, and land use. GPU3 would allow more new development during the planning horizon than would the proposed 2007 General Plan and sets a lower congestion threshold (LOS C). It is reasonable to conclude that potential adverse indirect impacts from GPU3 would be greater to those of the 2007 General Plan because the former would allow more residential development in more places. GPU3 would, however, have less traffic congestion than the proposed 2007 General Plan, assuming that financing

would be available for the road improvements needed in order to meet the LOS C standard.

5.4.2.7 Air Quality

The North Central Air Basin is not in attainment for the State O₃ standard. Ozone is the product of NO_x and SO_x emissions mixing in the presence of sunlight. Implementation of GPU3 would allow for 13,675 new dwelling units, as well as other development that will, in turn, result in additional emissions of ozone precursors from vehicle exhaust. This would be a significant effect.

GPU3 would allow an estimated 3,650 more new dwelling units by 2030 than are proposed under the 2007 General Plan. As a result, there would be less traffic congestion once roadways attained LOS C, but potential air quality impacts related to vehicular sources of emission would likely be greater than what would occur under implementation of the 2007 General Plan as a result of more automobiles and presumably more vehicle miles travelled under GPU3. The potential adverse impacts on air quality from GPU3 would be greater than those of the 2007 General Plan.

5.4.2.8 Noise

GPU3 includes strong policies intended to ensure that new development of sensitive receptors will not be exposed to excessive noise (i.e., noise levels exceeding County standards), including noise from roadway improvement projects. However, the policies also prohibit the use of masonry sound walls in rural areas. This prohibition may act to make roadway improvement noise attenuation infeasible where existing rural residences adjoin those roads. As a result, GPU3 would be expected to have a significant effect on noise in rural areas where roads are widened to meet the LOS C congestion standard.

The proposed 2007 General Plan has similar noise policies, with additional policies intended to limit noise and vibration from construction activities. The 2007 General Plan would also discourage the use of masonry walls for noise attenuation in rural areas. Although the 2007 General Plan would probably not require the road widening associated with GPU3, it would allow greater congestion on County roads, and therefore would result in higher noise levels along roads that become more congested.

Implementation of GPU3 would allow for 3,650 more dwelling units than the 2007 General Plan. As a result, the potential for noise impacts would be greater than the 2007 General Plan. Because GPU3 lacks policies limiting construction noise, short-term construction-related noise and vibration impacts would also be expected to be correspondingly less. Accordingly, potential adverse noise impacts from implementation of GPU3 would be less than those of the 2007 General Plan.

5.4.2.9 Biological Resources

Overall, the 8 Community Areas and 18 Rural Centers established under GPU3 would result in new urban development within those areas. In some cases, this development will occur on or near natural habitats inhabited by special status wildlife and plant species, or affect open lands currently used by special status species as foraging habitat or movement corridors. In addition, the road widening needed to maintain LOS C into the future may also affect habitats such as wetlands and riparian areas. At the same time, GPU3 contains strong policies for the protection of biological resources. These include requiring analysis and mitigation of impacts in conjunction with development in Community Areas, limiting development in rural areas to “building envelopes” that minimize effects on critical habitats, and designing new development to avoid sensitive resources where possible. Development on rural lands or in Rural Centers would also be required to comply with setbacks from habitat areas to minimize development impacts. These policies would reduce the potential effects of new development but may not be sufficient to reduce all effects below a level of significance.

In comparison, the biological resources policies of the 2007 General Plan would require inventorying sensitive habitats and avoiding impacts on state and federally listed species and designated critical habitat. The CEQA process would be used to mitigate impacts from individual development projects, as such projects are proposed. The 2007 General Plan also would require preparation and implementation of a program to comprehensively mitigate the loss of critical habitat.

The 2007 General Plan contains less restrictive standards for protection of biological resources than GPU3. With the addition of the proposed mitigation measures to the 2007 General Plan, the two alternatives become more comparable with respect to protecting biological resources. Accordingly, balancing differences in growth with stringency of protection policies, the impacts of GPU3 on biological resources would be similar to that of GPU2007.

5.4.2.10 Cultural Resources

GPU3 includes strong policies for the identification and evaluation of cultural resources, including historical resources and archaeological sites. However, its policies for protecting those resources are vague and largely dependent upon the CEQA process. Previously undiscovered burials would be managed under the state law for the treatment of buried remains. Taken as a whole, the policies in GPU3, CEQA, and state law would avoid a significant effect on cultural resources.

In comparison, the 2007 General Plan has a similar set of policies for archaeological and paleontological resources, with additional policies governing the protection of burial sites. The proposed 2007 General Plan does not have specific policies for the protection of historic resources, but the County’s adopted

Historic Preservation Plan and Historic Preservation Ordinance reduce the need for such policies.

Therefore, the 2007 General Plan would have a less-than-significant effect on cultural resources. GPU3 and the 2007 General Plan would have basically the same potential impacts on cultural resources.

5.4.2.11 Public Services and Utilities

GPU3 contains a rigorous requirement for the concurrent provision of public services and utilities. This would avoid significant effects. In comparison, the proposed 2007 General Plan has similar policies. Because the design and location of future services and utilities are largely unknown, the impacts of the construction and operation of new facilities cannot be reasonably ascertained at this time. These facilities will probably be built within the cities, Community Areas, and Rural Centers that they would serve. As a result, their impacts would be part of the overall impact of urbanization. Both GPU3 and GP2007 includes provisions for mitigation the impacts of construction of new facilities. Therefore, GPU3 impacts on public services and utilities are similar to those of the 2007 General Plan.

5.4.2.12 Parks and Recreation

GPU3 would require the adoption of park development guidelines, a parks inventory, and park acquisition priorities (by area) in conjunction with new park development, thereby ensuring the provision of park and recreational facilities concurrent with new development. These provisions would avoid a significant effect as a result of insufficient parks and the overuse of existing facilities. The 2007 General Plan has practically the same requirements, by comparison, lacking only the specificity of the park acquisition priorities. However, Mitigation Measure PS-1 would revise the 2007 General Plan's policies to clearly establish dedication standards for on-site park facilities to ensure that future subdivision approvals exact parks and recreation facilities or in-lieu fees. Therefore, GPU3's impacts to parks and recreational resources are relatively similar to those that would result from implementation of GP2007, with mitigation.

5.4.2.13 Hazards and Hazardous Materials

GPU3 contains policies addressing potential impacts on hazardous materials that reflect state law for inventory, avoidance, and clean-up of hazardous materials. The policies also require a site contamination study where contamination is suspected. GPU3 also includes policies concerning emergency response and wildland fire protection, including fire service standards, design requirements, and defensible space requirements for new development. However, absent

stronger policy restrictions on development in high hazard fire areas, GPU3 would have a significant effect.

The 2007 General Plan contains similar policies. In addition, it includes detailed policies requiring annexation to fire districts, and addressing emergency evacuation routes, coordination between emergency response agencies, fire flows, fire vehicle access, and fuel modification zones in areas of high and very high fire hazard. These policies would avoid significant effects. Thus, GPU3 with its larger developed area and greater potential for residential development would have greater adverse impacts on hazards and hazardous materials than the 2007 General Plan.

5.4.2.14 Aesthetics, Light, and Glare

Implementation of GPU3 would have significant impacts on scenic vistas, scenic highways, visual character, and light and glare because of the more intense land uses envisioned under this alternative compared to the existing setting. By comparison, the 2007 General Plan would have similarly significant impacts, albeit over a smaller developable area with fewer Rural Centers. Accordingly, potential impacts on aesthetics, light, and glare would be greater under GPU3 than under the 2007 General Plan.

5.4.2.15 Population and Housing

Both GPU3 and the proposed 2007 General Plan are local land use plans that prescribe where and at what intensity future growth will occur. Pursuant to state law, a general plan must provide for sufficient new development to accommodate projected housing demand. As such, both plans would induce future growth by accommodating future development. Neither plan is expected to result in the displacement of substantial numbers of dwelling units or persons. Given its greater potential for development, GPU3's impacts on population and housing would be greater than those of the 2007 General Plan.

5.4.3 Conclusion

The GPU3 Alternative would be the most growth accommodating option of the alternatives, with eight Community Areas and 18 Rural Centers; more so than the 2007 General Plan. GPU3 has greater impacts on land use, agricultural resources, geology and soils, transportation, air quality, noise, hazardous materials, aesthetics, and population and housing than the 2007 General Plan. It has similar impacts on water resources, minerals, biological resources, cultural resources, public services, and parks and recreation. This alternative would not reduce any of the impacts identified for the 2007 General Plan.

As required by CEQA, this alternative meets all of the objectives of the 2007 General Plan. It would update the existing 1982 General Plan policies and land use map to account for changing economic conditions, land use patterns, socio-economic changes, or technological advancements. With respect to providing for the continued viability of the agricultural industry, it includes provides a wine corridor plan, but does not include an Agricultural Element with as many specific policies targeting the enhancement and protection of the agricultural industry.

5.5 General Plan Initiative Alternative (GPI)

5.5.1 Description

The General Plan Initiative Alternative (GPI) would amend parts of the existing 1982 General Plan, the 2003–2007 Housing Element, and the North County Land Use Plan. The GPI would restrict growth in the unincorporated areas of the County by requiring existing infrastructure deficiencies to be addressed before allowing new development and prohibiting any intensification of land use (e.g., subdivision) outside cities or Community Areas with an adopted Community Plan unless approved by initiative countywide vote. In addition, the GPI is designed to limit maximum potential development to the minimum number of housing units identified in the Regional Housing Needs Assessment. The GPI would create five types of land use categories: Cities, Community Areas, Rural Lands, Agricultural Lands, and Public Lands. With the exception of the Community Area designation, the GPI does not contemplate intensifying the level of land use in the four other land use categories and would not establish any Rural Centers.

The Community Area concept in the GPI is similar to that contained in GPU3 and the 2007 General Plan. However, instead of the eight Community Areas included in GPU3, the GPI proposes the same five identified in the proposed 2007 General Plan: Boronda, Castroville, Chualar, Fort Ord, and Pajaro. Future growth in the unincorporated areas of the County would be limited to Community Areas, and any intensification of use or changes to the boundaries of these identified areas would require prior approval of a majority of County voters. Growth in Boronda, Castroville, Fort Ord, and Pajaro would be facilitated by redevelopment and reuse activities; growth in Chualar would occur on existing agricultural lands, which would be limited to no more than 100 acres at a later timeframe in the life of the General Plan. In addition, the GPI emphasizes that future growth in Community Areas must be phased to first occur where infrastructure currently exists. Outside of Community Areas, only existing lots of record could be developed.

The GPI also contains land use restrictions requiring that any future General Plan amendments be approved by a majority of the County electorate, and a directive that the County work with the Monterey County Local Agency Formation

Commission to promote compact, urban development patterns within the existing boundaries of incorporated cities.

The GPI would also amend the existing Housing Element (last updated in 2003) to include more expansive inclusionary affordable housing requirements. The existing 20% affordable housing requirement would be increased to 30% of units by adding two tiers of workforce housing: Workforce I (5%) and Workforce II (5%). In certain situations, the GPI would require that as much as 40% affordable housing be included in proposed residential developments. In addition, the Housing Element would be amended to include a new right-of-first-refusal program for persons living or working in Monterey County who wish to rent or purchase new housing units.

The GPI includes policies concerning farmworker housing on Agricultural and Rural Lands. Housing for farmworkers would be permitted under the GPI's policies on an existing legal lot of record, if housing will support agricultural uses on site; housing is located to minimize interference with agricultural uses and to minimize impacts; housing complies with all health and safety codes; housing is permanently restricted to farmworker housing; a deed restriction has been recorded defining all units as accessory to the agricultural use on site; and all necessary services can be provided to support the farmworker housing.

In addition, the GPI amends the North County Coastal Plan but exempts the Del Monte Forest Land Use Plan, the Carmel Land Use Plan, and the Big Sur Coast Land Use Plan from the major policy changes in the Initiative with respect to land use classifications, growth and housing policies, and the requirement for voter approval to any Plan changes.

5.5.1.1 Development Comparison

A comparison of development potential between GPI and the 2007 General Plan over the 2030 planning horizon is provided in Table 5-3. Development under the GPI would result in approximately 5,901 more dwelling units than the proposed 2007 General Plan.

Table 5-3. Comparison: GPI and Proposed Project to 2030

Category	GPI	2007 General Plan	Difference (GPI vs. 2007 General Plan)
Residential	13,973 dwelling units	10,015 dwelling units*	5,901 dwelling units

*Difference in projected dwelling units is based on the difference between the estimated housing units within the unincorporated County from 2005 to 2030 for GPU3 and from 2006 to 2030 for the 2007 General Plan.

Source: Bay Area Economics. 2007. *Analysis of Monterey County General Plans and Quality of Life Initiative*. February

The difference in development potential between the two plans, as well as the difference in goals and policies, will serve as the basis for the analysis of the GPI alternative. The analysis below is based in part upon the Analysis of the Monterey County General Plans & Quality of Life Initiative prepared by Bay Area Economics and dated February 2007.

5.5.1.2 Land Use

The GPI policies encourage most new development to occur within the County's cities. The GPI would effectively preclude new urban development in Rancho San Juan and San Lucas, and instead concentrate denser development in the five remaining Community Areas. The GPI does not include the land use concept of Rural Centers found in some of the other alternatives. It would require that future General Plan amendments be approved by a majority of the County electorate, which would likely result in fewer amendments and the possibility that future amendments necessary to update the Housing Element would be problematic.

The GPI will result in urbanization within the cities and the Community Areas. As discussed earlier, by law a general plan must include sufficient provisions for growth to accommodate projected housing demand. As a result, the GPI will be growth-inducing. In this regard, it would have a similar significant impact as the proposed 2007 General Plan.

However, the GPI places greater restrictions on land use than the 2007 General Plan, limiting growth in the unincorporated County area to a smaller geographic area than is proposed under the 2007 General Plan. By concentrating growth in cities and existing urbanized areas, there is less likelihood to create conflicts with existing land uses. However, by amending the North County Coastal Plan, there is some potential for inconsistency between the GPI and existing County ordinances, and the potential for the Coastal Commission to determine that this element is inconsistent with the Coastal Act. Nonetheless, the GPI would have less potential to result in conflicts between land uses than the 2007 General Plan.

5.5.1.3 Agriculture Resources

The GPI's development potential is limited to the existing cities, the five Community Areas, and legal lots of record. As a result, it is reasonable to expect that a smaller overall amount of agricultural lands would be converted to non-agricultural uses under the GPI than under the proposed 2007 General Plan. Furthermore, the GPI's voter approval requirement for future General Plan Amendments is likely to make it much more difficult to convert agricultural lands under the jurisdiction of the County to non-agricultural uses. GPI does not have the specific policies addressing mitigation of impacts from the conversion of agricultural land either within the unincorporated County or as a result of annexation of agricultural land to cities as are included in the 2007 General Plan.

However, these county restrictions would not stop future growth in the cities. AMBAG projections indicate that Monterey County's total population will continue to grow in the future. The cities currently hold approximately 75% of the County's population. The GPI would likely direct an even greater proportion of this population growth to the existing cities than has occurred in the past. Future expansions of the boundaries of the Salinas Valley cities, which are surrounded by Prime Agricultural land, will result in the conversion of a significant amount of those lands to urban uses.

For example, according to the Final EIR certified in 2002 for the Salinas General Plan, the City of Salinas has an existing residential density of approximately 9 dwelling units per acre. In order to accommodate the housing growth currently projected by the *2004 AMBAG Population, Housing Unit and Employment Forecasts* to occur between 2005 and 2030 (approximately 17,644 new units), the City will need to develop approximately 1,960 acres of land. This does not include the amount of land needed for roads, commercial development, parks, and other related urban development, nor does it include the development that might otherwise have occurred in the County absent the GPI. Therefore, the GPI will have a significant indirect effect on annexation and the conversion of agricultural lands that adjoin cities. This effect will occur primarily in the Salinas Valley where there is sufficient water supply to serve projected growth to 2030, but it is on the most productive agricultural lands.

By comparison, the 2007 General Plan would authorize more extensive urbanization within the County than does the GPI, particularly in areas designated as Rural Centers. However, the Community Areas and Rural Centers designated in the 2007 General Plan are generally less productive lands and grazing lands. Therefore, development under the GPI and under the 2007 General Plan would result in similar levels of conversion and significant effects on agricultural land. GPI would have greater indirect effects on productive agricultural lands based upon the potential growth that would result in cities.

5.5.1.4 Water Resources

The GPI would direct most new development to the existing cities. Additional development would be accommodated within five Community Areas under the regulatory control of the County. The GPI retains the policies of the existing 1982 General Plan with respect to soil erosion and sedimentation from construction and agricultural land use activities, wastewater disposal (i.e., septic tanks), groundwater overdraft, seawater intrusion, well competition and interference, and levee and dam failure. The Erosion Control Ordinance (Chapter 16.12 of the Monterey County Code) would remain in place.

All of these are significant problems that would also result from development under the 2007 General Plan. While the potential effects of the GPI would be less than those of the 2007 General Plan by virtue of the greater compactness of the urban development contemplated, the GPI lacks many of the comprehensive water resource goals and policies contained in the 2007 General Plan. Moreover,

there is greater total development under GPI to the year 2030 than for GP 2007 with significant reliance of providing housing on lots of record throughout the unincorporated area. This would result in greater impacts to water resources overall although it could be offset by the greater intensity of growth in the few community areas and cities. Taking these factors into consideration, development to the 2030 planning horizon under the GPI would have a slightly greater impact on water resources than would the 2007 General Plan.

5.5.1.5 Geology, Soils, and Seismicity

The GPI would center urban development in and adjacent to the existing cities and five Community Areas. Development would be subject to the policies of the 1982 General Plan, plus existing regulations such as the County Erosion Control Ordinance, state Alquist-Priolo Seismic Zone Act, and California Building Code development standards. Additionally, the GPI would prohibit all development on slopes over 25%, and no new agricultural cultivation on slopes over 15%. These would avoid significant effects from implementation of the GPI.

Compared to the 2007 General Plan, the GPI would reduce the exposure of persons and property to geologic, soil, and seismic hazards by virtue of its more compact development pattern. This is exemplified by elimination of the Rural Centers as development nodes. Further, its restrictions on hillside development reduce the potential for soil erosion to occur and for slope instability to adversely affect development. Therefore, potential adverse impacts on geology, soils, and seismicity from the GPI would be less than those of the 2007 General Plan.

5.5.1.6 Mineral Resources

Oil production in the southern Salinas Valley and South County is the only mineral resource extraction activity that may be affected by development and land use activities contemplated by the GPI. Economic conditions and legal constraints make it highly unlikely that either the GPI or the 2007 General Plan would result in the premature termination of oil extraction operations in these areas. Therefore, the GPI would have the same impacts on mineral resources as the 2007 General Plan.

5.5.1.7 Transportation

The GPI retains all of the policies of the existing 1982 General Plan with respect to circulation. The GPI would require that new development within the urban development boundaries of the Community Areas be phased so that all public infrastructure is completed prior to or concurrent with new development. However, because development would continue within Monterey County under the GPI, albeit primarily within the cities and Community Areas, traffic levels would increase over existing conditions. This will be a significant effect.

The GPI has a stricter concurrency policy than the 2007 General Plan. As a result, development in the Community Areas will be supported by necessary local road improvements as it occurs. However, this will not reduce the impacts on regional roads that are expected to occur as a result of new development, nor will it reduce the indirect impacts on the cities as a greater proportion of the County's growth is directed to incorporated areas. The 2007 General Plan commits the County to developing, in cooperation with the Transportation Agency of Monterey County (TAMC) and other agencies, a regional mitigation fee with the goal of achieving LOS D on the regional roadway system. That fee program has been adopted and is currently in effect.

The GPI does not include an AWCP that would encourage future wineries to locate along the AWCP's three road corridors. Assuming that wineries will continue to be built to process the grapes being produced in the County, the GPI would encourage a more dispersed pattern of winery locations than would the 2007 General Plan. To the extent that clustering wineries along three road corridors would result in greater congestion than would dispersed wineries, the GPI would have less impact than the 2007 General Plan.

The GPI would result in a more compact pattern of urbanization than is proposed under the 2007 General Plan although there would be potential traffic from the sprawl of development on lots of record. Concentration of growth would tend to reduce vehicle miles travelled by reducing the number of traffic generators and destinations. Traffic is likely to be more concentrated in the cities which would increase local congestion, but taken as whole, the potential adverse impacts on transportation on regional and county roads from the GPI would be less than those of the 2007 General Plan.

5.5.1.8 Air Quality

The GPI retains air quality policies from the existing 1982 General Plan and does not set a specific LOS standard for County roads. By virtue of its direct and indirect impacts on traffic and urban development, the GPI can be expected to have a significant effect on air quality.

In comparison, the 2007 General Plan contains policies that are consistent with the air quality objectives of the 2004 AQMP. Moreover, the 2007 General Plan's local traffic impact fee and prohibition on occupancy of new development until all roadways operate at LOS D or better would significantly reduce idling on local roadways, which would result in a corresponding reduction in adverse air quality impacts. However, the extent of new traffic expected to be generated by the 2007 General Plan, combined with other sources of emissions resulting from urban development and the ACWP, will result in a significant effect on air quality.

The GPI would result in a more compact pattern of development than the 2007 General Plan. Compact development patterns tend to result in fewer vehicle trips than in less compact settings although air quality in urban areas may deteriorate.

Compact development patterns allow pedestrian, bicycle, and transit trips to substitute for short automobile trips (Urban Land Institute 2008). Accordingly, the GPI may be expected to have less of an impact on air quality than the 2007 General Plan.

5.5.1.9 Noise

The GPI would result in a compact pattern of development and would carry forward the noise policies of the 1982 General Plan. These are intended to be protective of sensitive receptors, but do not include standards for reducing construction noise. Under implementation of the GPI, noise would be generated primarily by new construction, the operation of new urban development in the Community Areas and cities, and additional traffic on roads (particularly in the rural areas where noise levels are generally low). In general, noise impacts would be significant in locations where new construction in the Community Areas adjoins sensitive receptors, and on the urban/rural interface where new urban development and new or widened roads carrying substantial amounts of traffic abut existing residences.

In comparison, the 2007 General Plan would result in the same types and levels of noise impacts but in more areas of concentrated growth. Noise in urban areas is greater than in less intensely developed areas. On balance, weighing difference in the number of growth centers, against the intensity of growth of the more compact areas, GPI impacts with respect to noise would be similar to that of the 2007 General Plan.

5.5.1.10 Biological Resources.

The GPI retains the vegetation and wildlife policies contained in the existing 1982 General Plan. Compliance with these policies would result in development with significant impacts on sensitive habitats, wetlands, riparian areas, wildlife movement, and tree preservation. Conversion of grazing lands, which provide wildlife habitat, to intensive agricultural cultivation, which provides little habitat value, would continue in the flatter portions of the County. However, the GPI would prohibit new agricultural cultivation on slopes over 15%. This would also act to limit the conversion of hilly grazing land to agricultural use, thereby reducing impacts on wildlife in those areas. Additionally, the GPI policies concentrate new development in the cities and the Community Areas, thereby minimizing the conversion of habitat by urban uses. Conversion on lots of record would potentially be greater, however.

In comparison, the 2007 General Plan would allow development over a more extensive area and would likely result in a greater level of conversion of grazing lands to cultivated agricultural land on steeper lots. There would likely be less development on lots of record that contain potential special status species up to the 2030 timeframe under GP 2007, however. With the addition of the mitigation

measures proposed in this EIR for protection of biological resources that are more protective than the policies in GPI (existing 1982 General Plan policies) the GPI would have more adverse impacts on biological resources than the 2007 General Plan.

5.5.1.11 Cultural Resources

The GPI would retain the 1982 General Plan policies for cultural resources. In addition to these policies, development would be required to comply with the County's adopted Historic Preservation Plan and Historic Preservation Ordinance. The GPI does not contain goals and policies addressing paleontological resources and Native American burial sites. To a certain extent, impacts on burials are reduced by California law regulating the treatment of burials found during construction activities. However, the lack of policies concerning paleontological resources and burial sites creates the potential for these resources to be damaged or destroyed and for a significant impact to occur.

The proposed policies of the 2007 General Plan, by comparison, are more protective of these resources than are the provisions of the GPI. In addition, GPI results in the development of more housing units the year 2030. Therefore, the GPI would have greater impacts on cultural resources as the 2007 General Plan.

5.5.1.12 Public Services and Utilities

Development under the GPI would result in a greater demand for public services and utilities than currently exists. In the future, the GPI's policies would result in a compact development pattern focusing on the five Community Areas and expansion of the existing cities. New demand for services and utilities would be concentrated in those areas. The GPI's requirements that new development in Community Areas be phased to occur first in areas with adequate public services and utilities would further lessen potential development impacts.

Because the GPI would direct a substantial amount of future development to the cities, it would avoid the need for the levels of County services that would be necessary to serve the 2007 General Plan implementation. Accordingly, this is expected to result in fewer adverse impacts from new or expanded fire protection, sheriff's protection, schools, libraries, medical facilities, potable water, wastewater, and solid waste facilities. Therefore, potential adverse impacts on public services and utilities under the GPI would be less than the 2007 General Plan. Both GPI and 2007 General Plan have less restrictive policies for development on lots of record, although projected growth on lots of record under GPI is anticipated to be greater under GPI to the year 2030. Accordingly, on balance, one would conclude that the impacts that would result from the construction of new public facilities would be less for GPI than for the 2007 General Plan.

5.5.1.13 Parks and Recreation

As with public services and utilities, development under the policies of the GPI would push most new development into the cities and the five Community Areas. The development in the cities would increase the need for parks and recreation facilities in those jurisdictions. Typically, that demand would be met by the affected cities through impact fees or other financing mechanisms applied in the course of approving development projects. The same would be true for the County in the Community Areas. As a result, the GPI would not result in a significant effect.

The area of future concentrated development in the unincorporated area is smaller under the GPI than under the 2007 General Plan. Less development in the unincorporated areas would translate to less demand for new parks and recreation facilities. Because future growth and the associated residential development will instead be channeled into the cities, there will be an increase in demand for new city parks and recreation facilities, as well as increased demand on existing facilities. The level of increased demand in the cities would depend upon the amount of growth that would be transferred and is not reasonably predictable. The 2007 General Plan, with mitigation requiring adoption of recreational facilities standards for new subdivision, would somewhat balance this impact.

Accordingly, the potential adverse impacts on parks and recreation from the GPI would be somewhat less than the 2007 General Plan in the unincorporated areas of the County but have greater indirect impact in the cities.

5.5.1.14 Hazards and Hazardous Materials

The GPI does not contain policies that adequately address potential impacts on hazardous materials, emergency response, and wildland fire protection. Although the GPI would effectively limit growth in rural areas to existing lots of record, that restriction would not offset the lack of comprehensive wildland fire protection goals and policies. The GPI would have a significant effect in these areas.

The 2007 General Plan contains new goals and policies to address these areas including extensive policies concerning fire hazards and emergency preparedness. Therefore, the GPI would result in potentially greater adverse impacts from hazards and hazardous materials in rural areas than the 2007 General Plan.

5.5.1.15 Aesthetics, Light, and Glare

The GPI would limit future urban growth in a manner that would preserve significant visual resource areas (agricultural fields, ridgelines, natural areas,

etc.) and minimize adverse impacts from new sources of light and glare. Nonetheless, the GPI would result in major new sources of light and glare being built within the cities and the Community Areas. These would adversely affect nearby rural and agricultural areas.

The more compact development pattern, in comparison to development under the 2007 General Plan, would result in fewer adverse impacts on scenic vistas, scenic highways, visual character, and light and glare. Impacts on visual character and light and glare would be significant and unavoidable as result of implementation of the 2007 General Plan. Because it would result in a more compact development pattern, aesthetics, light, and glare impacts of the GPI would be less than those of the 2007 General Plan.

5.5.1.16 Population and Housing

The GPI and the proposed 2007 General Plan are local land use plans that prescribe where and at what intensity future growth will occur. Pursuant to state law, a general plan must provide for sufficient new development to accommodate projected housing demand. As such, both plans would induce future growth by accommodating future development. Neither plan is expected to result in the displacement of substantial numbers of dwelling units or persons. In the near term, the GPI would have similar impacts on population and housing to those of the 2007 General Plan. However, if the voter approval requirement of the GPI resulted in the county being unable to amend its Housing Element to comply with the requirements for housing availability under State Housing Element Law, the County would be placed under legal threat for being out of compliance with that law.

5.5.2 Conclusion

The GPI Alternative would amend the policies of the existing 1982 General Plan to limit growth outside of Community Areas. While this alternative would allow only slightly more growth than the 1982 General Plan which it amends, its stringent land use and transportation infrastructure requirements would effectively curtail future urban expansion in the unincorporated County. The GPI would have a greater impact on cultural resources, hazardous materials and water resources, biological resources and agricultural resources. than the proposed 2007 General Plan. It would have similar impacts with respect to mineral resources, noise, public services and and population and housing. It would have lesser impacts on land use, geology and soils, transportation, air quality, parks and recreation, and aesthetics, light, and glare than the proposed 2007 General Plan.

The GPI Alternative meets three of the five objectives of the 2007 General Plan. It would provide an updated General Plan that reflects the existing physical conditions and constraints in the County and provides a range of comprehensive

policies to guide future residential development based on those conditions and constraints. It does not establish new comprehensive policies and modify existing policies in the existing 1982 General Plan that reflect the latest legal, statutory, scientific, and technical changes and advances. It contains minimal policies with respect to address future employment growth and economic growth in the County in general or more specifically with respect to the agricultural industry. The GPI Alternative would also accommodate forecasted growth, albeit in a different manner than the 2007 General Plan. The GPI Alternative does contain strict limitations on growth outside of designated areas that would limit the County's flexibility in accommodating growth to the planning horizon by requiring that amendment to the General Plan be approved by a majority of the voters.

5.6 2006 General Plan (GPU4)

5.6.1 Description

GPU4 was the basis for the proposed 2007 General Plan that is the subject of this EIR. Accordingly, it shares many of the 2007 General Plan's proposed goals and policies. A discussion of the key differences between GPU4 and the 2007 General Plan follows at the end of this subsection.

GPU4 includes amendments to the seven Area Plans; including them as sections in the General Plan and deleting any Area Plan policies that are otherwise addressed on a County-wide level in the General Plan. This focuses the policies on provisions that are unique to each Area Plan. GPU4 does not propose to amend the County's certified Local Coastal Program or any of its local coastal plans. The 2007 General Plan shares this approach.

GPU4 provides for a range of land uses and densities for the unincorporated areas of Monterey County that are not in federal or state ownership. GPU4 policies encourage most future development to take place within the incorporated cities, with an "urban reserve" designated around each city identifying unincorporated lands that may be available for annexation. Growth areas within the County would be designated where an adequate level of public services is available or "can be assured concurrent with growth and development." The 2007 General Plan shares this approach.

GPU4 provides for limited urban development to occur in selected areas of the unincorporated area of the County. In addition to the previously adopted Carmel Valley and Fort Ord Master Plans, GPU4 establishes six Community Areas where future urban development will be focused. In addition, nine Rural Centers are identified in areas that already contain a concentration of higher intensity uses than are typically found in rural areas. These Rural Centers would evolve into Community Areas over the life of GPU4 should infrastructure and services become available. Urbanization of Rural Centers is intended to be secondary in priority to development in the Community Areas and would be contingent upon

the prior preparation of a Capital Improvement and Financing Plan (CIFP) to ensure that adequate urban services can be provided. There are 17 Special Treatment Areas in GPU4 (including the existing 10 STAs in the 1982 General Plan) and 4 Study Areas. Implementation of GPU4 would result in approximately 8,336 more dwelling units than the proposed 2007 General Plan.

Under GPU4, the CIFP would address benefit areas, the cost of improvements over the life of the general plan, financing/funding sources to accommodate those costs (including a traffic impact fee), a schedule for completion of improvements, and coordination with the TAMC's regional traffic impact fee program, when adopted. GPU4 policy commits the County to reviewing the CIFP every five years after adoption of the General Plan.

GPU4 commits the County to preparing a Residential Development Evaluation System (DES) "to provide a systematic, consistent, predictable, and quantitative method for decision-makers to evaluate residential developments of five or more lots or units in areas of the unincorporated County outside of Community Areas and Rural Centers, and in Rural Centers prior to the preparation of the required Infrastructure and Financing Study." The DES would regulate these developments on the basis of site suitability; infrastructure availability; resource management; proximity to a city, Community Area, or Rural Center; affordable housing; environmental impacts; jobs-housing balance; and other factors. The DES would not be a "pass-fail" system under GPU4. Projects of five or more units in a Rural Center prior to adoption of an Infrastructure and Financing Study would be required to include 35% affordable/workforce housing. Such projects outside of a Community Area or Rural Center would be required to provide at least 50% affordable/workforce housing.

Other goals and policies address such subjects as biological resource conservation; cultural resources preservation; reduction of seismic, geological, and wildland fire hazards; provision of public utilities; and transportation needs. The titles of the elements of GPU4 reflect its comprehensive scope: land use, circulation, conservation/open space, safety, public service, agriculture, and economic development. This is shared with the 2007 General Plan.

In addition to discouraging urban uses outside of cities and Community Areas, GPU4 contains an agricultural element with goals and policies that are intended to be protective of agriculture. These include policies limiting the regulation of "routine and ongoing agricultural activities," authorizing agricultural support uses in agricultural areas, limiting the subdivision of agricultural land, establishing agricultural buffers to separate agricultural uses from urbanization, and committing to adopt a program for mitigating the loss of farmland to urbanization or city incorporation.

GPU4 would require the establishment of a permit process for development on slopes exceeding 25%, or that contain mapped geologic hazards or constraints. A grading permit would be required for the conversion of slopes in excess of 25% to agricultural use. A ministerial permit process would be established for

proposed development on slopes between 15 and 24%, and 10 to 15% on highly erodible soils.

A separate *Agricultural Winery Corridor Plan* (ACWP) that implements General Plan policies is also included in GPU4. The ACWP designates three segments of a winery corridor in the Central Salinas Valley, South County, and Toro areas along River Road, Metz Road, and Jolon Road. GPU4 establishes land use policies to guide the establishment of a defined number of wineries and tasting rooms. Land use policies to guide the development of the Agricultural Winery Corridor include standards that regulate the size and location of wineries. The policies are intended to allow for the development of an Agricultural Winery Corridor that is consistent with the existing agricultural land uses as well as the provisions of the Williamson Act. Under the full development of the AWCP, up to 40 “artisan” wineries, and 10 tasting rooms would be developed, along with 3 restaurants, 5 delicatessens, 8 bed-and-breakfasts, a business cluster, and up to 2 visitor centers. GPU4 specifies the number of each wine-related facility that would be allowed on each of the three segments in order to avoid overcrowding. However, it does not identify specific locations for any facilities within a segment.

5.6.1.1 Differences between GPU4 and the 2007 General Plan

While GPU4 contains many of the same policies as the project, it differs from the 2007 General Plan in the following key areas:

- The 2007 General Plan would commit the County to adopting a Greenhouse Gas Reduction Plan within 24 months of adopting the General Plan. The purpose of the plan would be to quantify County greenhouse gas emissions and establish a set of policies and implementation measures that would reduce projected greenhouse gas emissions to 1990 levels. No such plan is proposed under GPU4.
- The 2007 General Plan would establish five Community Areas rather than the six proposed under GPU4 (San Lucas would be designated a Rural Community under the 2007 General Plan).
- The 2007 General Plan would establish seven Rural Centers rather than the nine proposed under GPU4 (Prunedale, Mouth of the Carmel Valley, San Benancio/Corral de Tierra, and Toro Park Estates/Serra Village would be deleted). In addition, the River Road Rural Center would be reduced in area.
- The 2007 General Plan would limit additional residential subdivision in Carmel Valley to 266 new lots. It would also prohibit the conversion of previously uncultivated land on slopes in excess of 25%.
- The 2007 General Plan includes revisions to the Greater Salinas, North County, and Toro Area Plans that would limit development on properties with residential land use designations to the first single-family residence on

each legal lot of record. In contrast, GPU 4 would allow subdivision of these legal lots when consistent with the plan.

- Under the 2007 General Plan, the DES would be a pass-fail system for sites outside of Community Areas, Rural Centers, and AHOs. The 2007 General Plan would further specify that these developments (as well as development within Rural Centers before adoption of the required Infrastructure and Financing Study) would be required to include at least 35% affordable/workforce housing, or 30% affordable/workforce housing if at least 15% of the housing is for farmworkers.
- The 2007 General Plan proposes specific criteria for development that uses the voluntary TDR program, which GPU4 does not have. These include site suitability; infrastructure availability; resource management; proximity to a city, Community Area, or Rural Center; environmental impacts; proximity to transportation; and avoidance of impacts on productive farmland.
- The 2007 General Plan establishes a voluntary AHO program not found in GPU4 to create an incentive for higher density, affordable housing at particular locations in the County. Three specific AHO districts are identified (Mid-Carmel Valley, Highway 68/Monterey Peninsula Airport, and Reservation Road/Highway 68), and the Community Areas and Rural Centers would be considered AHOs until adoption of their community plans and Infrastructure and Financing Studies. Within an AHO, the residential density would be from 5 to 30 units per acre, with a minimum average of at least 10 units per acre. The 2007 General Plan would require the infrastructure necessary to serve the AHOs to be installed concurrent with development of the affordable housing project.
- The 2007 General Plan would require the Capital Improvement and Financing Plan to be adopted within 18 months of approval of the General Plan.
- Both the 2007 General Plan and GPU4 require the construction of road improvements on impacted roads concurrently with development. The 2007 General Plan would exempt the first single-family residence, non-habitable accessory structure, second unit, and non-discretionary commercial uses from this requirement.
- The 2007 General Plan would prohibit development on slopes greater than 30%, with limited exceptions. Rather than a grading permit for agricultural conversion on slopes exceeding 25%, as in GPU4, the 2007 General Plan would require the County to develop an Agricultural Permit process. The 2007 General Plan sets out a list of criteria (i.e., water quality and supply, biological resources, cultural resources, erosion control, drainage, and flood hazards) that would be weighed to establish whether the agricultural permit might be ministerial.
- The 2007 General Plan would specify that well-defined buffer areas must be provided as partial mitigation for new non-agricultural development located adjacent to important farmland. The criteria for establishing buffers are essentially the same as proposed under GPU4. However, where GPU4

presumes that buffers are not meant to be permanent, the 2007 General Plan would allow permanent buffers as well.

- The 2007 General Plan expands upon GPU4’s provisions for adopting a program to mitigate the loss of important farmland to development or annexation. It further provides that mitigation mechanisms will be based on a graduated value of farmland, with the greatest mitigation for prime farmland. It also includes encouragement for non-profit land trusts to assist in implementing the program through voluntary acquisition of development rights.
- The 2007 General Plan would integrate the AWCP, rather than adopting it separately. The 2007 General Plan would allow up to 10 full-scale wineries within the agricultural wine corridors, in addition to the uses identified in GPU4. These would be limited to up to five wineries on the River Road segment, two on the Metz Road segment, and three on the Jolon Road segment. Each full-scale winery would be allowed to include a tasting room and to hold events without a separate permit.

5.6.1.2 Development Comparison

Table 5-4. Comparison: GPU4 and Proposed Project (2030)

Category	GPU 4	2007 General Plan	Difference (GPU4 vs. 2007 General Plan)
Residential	16,900 dwelling units	10,015 dwelling units*	8,828 more dwelling units

*Difference in projected dwelling units is based on the difference between the estimated housing units within the unincorporated County from 2005 to 2030 for GPU3 and from 2006 to 2030 for the 2007 General Plan.

** Employment is based on the same time periods.

Sources: Bay Area Economics. 2007 *Analysis of Monterey County General Plans and Quality of Life Initiative*. February; AMBAG 2004.

5.6.2 Environmental Effects

5.6.2.1 Land Use

GPU4 would pursue a general policy of encouraging most new development to occur within the cities, including within areas of future annexation. Community Areas and Rural Centers would provide first and second preference for urban density growth within the unincorporated County. GPU4 includes policies intended to avoid land use conflicts between incorporated and unincorporated areas through coordination with the cities and the Local Agency Formation Commission. The Urban Reserve land use designation is one way in which unincorporated areas near the cities will be prepared for future annexation and urbanization. Another way is to authorize buffers between agriculture and

incompatible uses, and to encourage mitigation for the loss of important farmland through annexation or conversion.

GPU4 provides for substantial new development over the existing conditions. This is consistent with state law requiring general plans to contain sufficient growth potential to accommodate future housing needs. This growth would be a significant effect.

GPU4's policies regarding city-centered growth, providing for buffers between agricultural and future urban uses, and encouraging compact form through the Community Areas and Rural Centers, will reduce the potential for conflicts between land uses. The potential for land use conflicts is less than significant.

GPU4 contemplates more extensive urbanization than does the proposed 2007 General Plan. By way of comparison, the 2007 General Plan would not designate Community Areas at Rancho San Juan or San Lucas. San Lucas is instead designated as a Rural Center. Rancho San Juan is a Special Treatment Area. The 2007 General Plan also eliminates GPU4's Rural Center designations for Prunedale, San Benancio/Corral de Tierra, and Toro Park Estates/Serra Village. These changes would reduce the area otherwise designated as either a Community Area or Rural Center under GPU4 by approximately 1,831 acres.

Further, GPU4 would allow more extensive development to occur outside of the urbanizing nodes than the 2007 General Plan. GPU4 would allow the further subdivision of existing lots of record within the Greater Salinas, North County, and Toro Area Plans. The 2007 General Plan would limit development on properties with residential land use designations to the first single-family residence on each legal lot of record. Similarly, by creating a pass-fail DES, the 2007 General Plan would restrict development of five units or more on sites outside of the identified Community Areas, Rural Centers, and AHOs. Therefore, GPU4 has a greater latent residential development potential in these areas than does the 2007 General Plan.

In comparison, the proposed 2007 General Plan would specify that AHO districts are also preferred areas for future development. The 2007 General Plan identifies sites in Mid-Carmel Valley (approximately 13 acres), Highway 68/Monterey Peninsula Airport (approximately 85 acres), and Reservation Road/Highway 68 (approximately 31 acres) as voluntary AHO districts, as well as Community Areas prior to adoption of a community plan and Rural Centers prior to adoption of an Infrastructure and Financing Study. The 2007 General Plan sets out detailed policies for considering the acceptability of AHO projects. By virtue of their increased density, the three AHO districts may conflict with the land use expectations of existing residents of lower-density developments. They may result in localized significant effects from land use conflicts. GPU4 would also propose fewer total wineries than the 2007 General Plan.

GPU4 would have a greater effect on growth than the 2007 General Plan by virtue of allowing more expansive residential growth to occur, particularly on lands outside of the Community Areas and Rural Centers. While development

under GPU4 would result in localized land use conflicts, these would be reduced by the policies discussed above. The more expansive growth under GPU4 would be offset by the additional potential for land use conflict under the 2007 General Plan at the full-scale winery sites and the AHOs. As a result, GPU-4 would have essentially the same effect on land use conflicts as the proposed 2007 General Plan.

5.6.2.2 Agriculture Resources

Under GPU4, a net loss of approximately 5,497 acres of Important Farmland and 6,785 acres of Williamson Act lands would occur. The policies of GPU4 would focus growth into higher density Community Areas as the first tier for new development, along with policies that manage subsequent growth in Rural Centers (second tier for new development). Several of the Community Areas encompass agricultural land, including Boronda, Castroville, Chualar, and Rancho San Juan. For the most part, the Rural Community areas avoid high quality agricultural lands. GPU4 would be accompanied by the ACWP, encouraging wineries and related activities along three corridors. The ACWP would lead to the conversion of Important Farmland depending upon the location of future wineries and other facilities.

GPU4 contains numerous policies in its Agricultural Element intended to minimize the potential impacts of incompatible development on agricultural lands. These include criteria for establishing non-permanent buffers, creating tax incentives for agricultural uses, limiting subdivisions, and a commitment to establish an agricultural land mitigation program. A set of policies limiting County regulation of “routine and on-going” agricultural uses is intended to encourage the continuation and economic viability of agricultural operations. Nonetheless, due to the expected conversion of Important Farmlands and lands currently under Williamson Act contract, GPU4 would have a significant effect on agricultural resources.

In comparison, the proposed 2007 General Plan contains similar policies with regard to agriculture. Notable differences include a stronger buffer policy, a more restrictive policy governing the subdivision of agricultural lands and a more detailed program for mitigating the loss of Important Farmland. The 2007 General Plan would also limit residential development within the Greater Salinas, North County, and Toro Area Plans to the first single-family residence on each legal lot of record. Similarly, by creating a pass-fail DES, the 2007 General Plan would restrict development of five units or more on sites outside of the identified Community Areas, Rural Centers, and AHOs. These policies and development criteria would reduce the 2007 General Plan’s potential to convert important agricultural lands in comparison to GPU4. In addition, by eliminating Rancho San Juan as a Community Area, the 2007 General Plan result in less conversion of agricultural lands to urban uses..

At the same time, the 2007 General Plan would authorize up to 10 full-scale wineries along the AWCP road segments. This would result in a greater potential

for the conversion of Important Farmland than GPU4, depending upon the location of future wineries and other facilities.

Overall, GPU4 would have a somewhat greater impact on agricultural resources than would the proposed 2007 General Plan.

5.6.2.3 Water Resources

GPU4 would direct most new development in the County to its existing cities. Additional development would be accommodated within the Community Areas and Rural Centers. GPU4 includes policies that would require establishment of a permit process for development on slopes in excess of 25% or that have known geologic hazards/constraints (with less restrictive provisions for conversion of previously uncultivated lands to agricultural use) in order to reduce erosion hazards. The County's existing Erosion Control Ordinance (Chapter 16.12 of the Monterey County Code) would remain in place. As a result, impacts on water quality are expected to be less than significant.

With regard to water supply, GPU4 policies require new development to demonstrate the concurrent availability of adequate public facilities and service (including water supply) before approval can be granted. GPU4 would require the County to develop a Hydrologic Resources Constraints and Hazards Database to identify important groundwater recharge areas, areas with limited groundwater, and areas unsuitable for septic tanks. GPU4 policy would prohibit approval of new development (except for the first single-family residence on an existing lot of record) without proof of availability of a "long-term, sustainable water supply, both in quality and quantity" to serve the development. GPU4 establishes criteria that may show proof of a long-term water supply.

In addition, GPU4 requires the County to develop a program as part of the Capital Implementation and Financing Plan that would eliminate overdraft of water basins. Other GPU4 policies would require that all projects be designed to maintain or increase the site's predevelopment absorption of rainfall and to recharge groundwater where appropriate, that the County use its discretionary permit authority to manage the construction of impervious surfaces in important groundwater recharge areas in order to maintain recharge capacity, and that the County encourage the use of recycled water where possible.

Outside of Community Areas, Rural Centers, and AHO districts, GPU4 commits the County to establish a Development Evaluation System to ensure that development of five or more lots or units considers infrastructure availability, among other things. No such provision is made for the first house built on existing vacant lots of record.

Despite its protective policies, development under GPU4 would have a significant impact on water resources, primarily from its contribution to the existing severe cumulative effect on limited groundwater supplies and overdraft conditions.

In comparison, the water resources-related policies of the proposed 2007 General Plan are similar to, but in some cases more restrictive than, those in GPU4. For example, the 2007 General Plan further specifies that the DES is to be a pass-fail system, thereby requiring disapproval of residential developments that cannot show sufficient infrastructure availability. In addition, based on the smaller number of Community Areas and Rural Centers, the 2007 General Plan would authorize future urban development over a smaller area than GPU4, thereby reducing the number of individual wells and making water conservation programs easier to administer. Further, the 2007 General Plan would limit development to the first residence on existing vacant lots of record within the Greater Salinas, North County, and Toro Area Plans. This would reduce the overall development up to the 2030 planning horizon in comparison to GPU4.

At the same time, while reducing water demand in those areas, the 2007 General Plan would increase potential water demand over GPU4 in the following ways. It would establish three AHOs that would offer participating landowners the opportunity to increase residential densities. This potential increase would be tempered by the fact that such projects at the Mid-Carmel Valley and Highway 68/Monterey Peninsula Airport AHOs would be restricted by the restricted water availability within the Monterey Peninsula Water Management District. The 2007 General Plan would authorize up to 10 full-scale wineries within the Agricultural Winery Corridor. These would result in an incremental increase in water use for their operations over what would be allowed in GPU4 in the AWCP. This will be tempered by policies requiring evaluation and approval of the adequacy of all new wells (PS-3.4 and PS-3.5).

Overall, potential implementation of the 2007 General Plan to the 2030 planning horizon would have less impact on water resources than of GPU4 to 2030.

5.6.2.4 Geology, Soils, and Seismicity

GPU4 includes policies that would require establishment of a permit process for development on slopes in excess of 25% or that have known geologic hazards/constraints (with less restrictive provisions for conversion of previously uncultivated lands to agricultural use). The County's existing Erosion Control Ordinance (Chapter 16.12 of the Monterey County Code) would remain in place. Development would also be subject to other existing regulations such as the state Alquist-Priolo Seismic Zone Act, and California Building Code development standards. These would avoid significant effects from implementation of GPU4.

Compared to the 2007 General Plan, GPU4 would have greater exposure of persons and property to geologic, soil, and seismic hazards by virtue of its more extensive development. This includes the additional Community Area and four Rural Centers not included in the 2007 General Plan. Additionally, the 2007 General Plan includes restrictions on residential development within the Greater Salinas, North County, and Toro Area Plans that would reduce the potential for additional subdivisions in those areas.

Additionally, GPU4 would allow more development on steeper slopes without permits than would the 2007 General Plan, since GPU2007 includes a provision governing restricting development on slopes over 30% unless there are no other feasible alternatives. Also, the DES under GPU4 would allow approval of projects with environmental impacts whereas the “pass-fail” aspect of the DES under the 2007 General Plan would encourage denial of such projects. Therefore, potential adverse impacts on geology, soils, and seismicity from GPU4 would be greater than those of the 2007 General Plan, but would still be less than significant.

5.6.2.5 Mineral Resources

Oil production in the southern Salinas Valley and South County is the only mineral resource extraction activity that may be affected by development and land use activities contemplated by GPU4. Concentration of development in the San Ardo and Bradley Rural Communities would meet housing needs without encroaching into mineral production areas. Economic conditions and legal constraints make it highly unlikely that either GPU4 or the 2007 General Plan would result in the premature termination of oil extraction operations in these areas. GPU4 and the 2007 General Plan do not have policy differences that would differentiate their impacts on mineral resources. Therefore, GPU4 would have the same impacts on mineral resources as the 2007 General Plan.

5.6.2.6 Transportation

GPU4 provides that, with the exceptions for Community Areas and Carmel Valley,, LOS D will be the standard level of acceptable congestion within the County. GPU4 commits the County to preparing a CIFP that will address the local road improvements needed to maintain acceptable levels of service, and to adopting a County traffic impact fee addressing development in cities and the unincorporated areas. In addition, GPU4 provides that projects that would reduce traffic flow below the acceptable standard would be required to implement a phasing plan that would allow road improvements to be built concurrently with the development. This is intended to avoid a lag between new traffic generation and the installation of road improvements. The concurrency policy would not apply to the first single-family residence on a lot of record, accessory units, or non-discretionary commercial development. GPU4 commits the County to developing, in cooperation with TAMC and other agencies, a regional mitigation fee with the goal of achieving LOS D on the regional roadway system. Localized traffic congestion will be a significant effect of GPU4.

The proposed 2007 General Plan contains nearly the same transportation policies as GPU4. The following are the exceptions. The 2007 General Plan would mandate adoption of the CIFP within 18 months of the general plan’s adoption and require a review of the degree to which development is approaching buildout

as governed by the individual traffic fee programs. This would reduce the potential for projects to be built without concurrent improvements. The 2007 General Plan would exempt the following types of projects from the phased concurrency requirement of GPU4: first single-family dwelling, accessory dwellings allowed under state law, and ministerial commercial development. As a practical matter, these are largely exempt under GPU4 as well because the County has limited or no discretionary permitting authority over these uses that would allow it to impose the concurrency policy.

GPU4 would propose a more extensive development pattern than the proposed 2007 General Plan. As a result, the potential adverse impacts on transportation from GPU4 would be greater than those of the 2007 General Plan.

5.6.2.7 Air Quality

GPU4 promulgates air quality policies that are consistent with the air quality objectives of the Monterey Bay Unified Air Pollution District's 2004 AQMP. Moreover, GPU4's local traffic impact fee and prohibition on occupancy of new development until all roadways operate at LOS D or better would significantly reduce idling on local roadways. This would result in a corresponding reduction in adverse air quality impacts. However, the extent of new traffic expected to be generated by the project, combined with other sources of emissions resulting from urban development and the ACWP, will result in a significant effect on air quality.

In comparison, the proposed 2007 General Plan includes the same air quality policies as GPU4. In addition to the air quality policies, however, the 2007 General Plan would require the County to prepare and adopt a Greenhouse Gas Reduction Plan within two years of adoption of the 2007 General Plan. While directing Monterey County to reduce its emissions of greenhouse gases to 1990 levels by 2020, the Greenhouse Gas Reduction Plan will likely include measures that will coincidentally reduce impacts on local air quality. These would probably include programs to reduce motor vehicle use (which would reduce the amount of tailpipe emissions) and to improve the efficiency of water use (which reduces the need to burn natural gas in water heaters). Accordingly, GPU4 may be expected to have a greater impact on air quality than the 2007 General Plan.

5.6.2.8 Noise

GPU4 includes strong policies intended to ensure that new development of sensitive receptors will not be exposed to excessive noise (i.e., noise levels exceeding County standards), including noise from roadway improvement projects. GPU4 also includes policies intended to limit noise and vibration from construction activities. However, the policies prohibit the use of masonry sound walls in rural areas. This prohibition may act to make roadway improvement noise attenuation infeasible where existing rural residences adjoin those roads.

As a result, GPU4 would be expected to have a significant effect on noise in rural areas where roads are widened to meet the LOS C congestion standard.

The proposed 2007 General Plan contains the same noise policies as GPU4. Because GPU4 provides for a more extensive development pattern, particularly with four additional Rural Centers, potential adverse noise impacts from implementation of GPU4 would be greater than those of the 2007 General Plan.

5.6.2.9 Biological Resources

The biological resources policies of GPU4 would require inventorying sensitive habitats and avoiding impacts to state and federally listed species and designated critical habitat. The CEQA process would be used to mitigate impacts from individual development projects, as such projects are proposed. GPU4 also would require preparation and implementation of a program to comprehensively mitigate the loss of critical habitat. These policies would be coordinated with the preparation of Area Plans. The current trend of conversion of grazing lands, which provide wildlife habitat, to intensive agricultural cultivation, which provides little habitat value, would continue under GPU4. All together, GPU4 would have a significant effect on biological resources.

The 2007 General Plan contains many of the the same policies as GPU4, although it would allow development over a less extensive area than GPU4. The proposed mitigation measures identified in this EIR with respect to special status species, stream set-back, kit fox mitigation, protection of woodlands and raptors would provide significantly more protection of biological resources than GPU4. Therefore, based upon the additional conversion of habitat and weaker policies protecting biological resources, GPU4 would have greater adverse impacts on biological resources than the 2007 General Plan.

5.6.2.10 Cultural Resources

GPU4 includes specific policies to inventory archaeological resources, survey in sensitive areas, and protect important representative and unique archaeological sites and features. GPU4 commits the County to adopting a uniform set of guidelines for archaeological assessment and recovery programs and consultations with Native Americans. Similar inventory, survey, and recovery policies are included to protect paleontological resources. GPU4 also contains policies to encourage the conservation of Native American cultural sites, sacred places, and burial sites, including provisions for consultation with tribal representatives. Historic resources are protected by the County's adopted Historic Preservation Plan and Historic Preservation Ordinance. As a result, impacts would be less than significant.

The proposed policies of the 2007 General Plan are identical to those in GPU4. The only differentiating impact factor is that GPU4 would allow more extensive

development. However, the policies would be sufficient to avoid significant impacts. Therefore, GPU4 would have the same potential impacts on cultural resources as the 2007 General Plan.

5.6.2.11 Public Services and Utilities

GPU4 contains a rigorous requirement for the concurrent provision of adequate public services and facilities as development occurs. This would avoid significant effects, except as noted under the water resources discussion. Outside of Community Areas and Rural Centers, GPU4 commits the County to establish a Development Evaluation System to ensure that development of five or more lots or units considers infrastructure availability, among other things. No such provision is made for the first house built on existing vacant lots of record.

The proposed 2007 General Plan has similar policies, although it further specifies that the DES is to be a pass-fail system. This will prohibit new projects that cannot meet the DES criteria, reducing the impact in comparison to GPU4. In addition, the 2007 General Plan would limit development within the Greater Salinas, North County, and Toro Area Plans to a single residence on lots of record. This would reduce the potential for additional subdivisions in those areas in comparison to GPU4 and the necessity of constructing new public facilities to serve those subdivisions. Therefore, GPU4 impacts on public services and utilities are greater to those of the 2007 General Plan.

5.6.2.12 Parks and Recreation

As with public services and utilities, development under the policies of GPU4 would place most new development in the cities and the Community Areas and Rural Centers. Development in the cities would increase the need for parks and recreation facilities in those jurisdictions. That demand would be met by the affected cities through impact fees or other financing mechanisms applied in the course of approving development projects. The same would be true for the County in the Community Areas and Rural Centers under GPU4's Adequate Public Facilities and Services standards.

GPU4 does not contain specific standards for the provision of park and recreation facilities for new development, although there is an existing ordinance requiring compliance under the Quimby Act. This may result in the overuse of other parks and a significant effect on parks and recreation.

The proposed 2007 General Plan contains the same policies as GPU4. Mitigation Measure PAR-1, which would require the County to adopt a general plan policy requiring a specific ratio of park acreage to population, would enable the County to require parks and recreation facilities as conditions of subdivision approval. Therefore, potential adverse impacts on parks and recreation from GPU4 would be slightly greater than those under the 2007 General Plan, as mitigated.

5.6.2.13 Hazards and Hazardous Materials

GPU4 contains policies that address public safety relative to seismic and geologic hazards (including inventorying and requiring geotechnical reports prior to development in areas of risk), flood hazards, hazardous materials, emergency response, and wildland fire protection (including standards for development to achieve an acceptable level of risk). GPU4 also establishes minimum service levels for emergency responders and identifies evacuation routes in case of a disaster. As a result of these policies, GPU4 would not have a significant effect in this area.

The 2007 General Plan contains the same goals and policies as GPU4. Although GPU4 has more extensive development, the additional Community Area and Rural Centers are not in areas that are particularly hazardous. Therefore, GPU4 would result in the same impacts as the 2007 General Plan.

5.6.2.14 Aesthetics, Light, and Glare

GPU4 would limit future urban growth in a manner that would preserve significant visual resource areas (agricultural fields, ridgelines, natural areas, etc.) and minimize adverse impacts from new sources of light and glare. Effective policies include restrictions on ridgeline development, encouragement of “clustered” development in rural areas, and the voluntary transfer of development rights away from areas with unique visual features. Nonetheless, GPU4 would result in major new sources of light and glare being built within the cities and the County’s Community Areas, Rural Centers, and artisan wineries. These would adversely affect nearby rural and agricultural areas. GPU4 would have a significant effect on aesthetics, light, and glare.

The proposed 2007 General Plan contains the same policies as GPU4 on this impact issue. By reducing the number of Community Areas and Rural Centers, the 2007 General Plan reduces the development potential proposed in GPU4, thereby somewhat reducing aesthetics, light, and glare impacts that would have otherwise occurred under GPU4. The AHO areas identified in the 2007 General Plan are located near existing urban areas and would have minimal additions to existing levels of light and glare.

At the same time, the 2007 General Plan would authorize up to 10 full-scale wineries (in addition to the 40 artisan wineries allowed under GPU4) along the River Road, Metz Road, and Jolon Road segments. These would introduce new sources of light and glare to these rural areas.

Based on the above discussion, the impacts of GPU4 would be somewhat greater with respect to light and glare than for the proposed 2007 General Plan.

5.6.2.15 Population and Housing

GPU4 and the proposed 2007 General Plan are local land use plans that prescribe where and at what intensity future growth will occur. Pursuant to state law, a general plan must provide for sufficient new development to accommodate projected housing demand. As such, both plans would induce future growth by accommodating future development. Neither plan is expected to result in the displacement of substantial numbers of dwelling units or persons.

As a result of its additional Community Area, Rural Centers, and allowance of residential subdivisions within the Greater Salinas, North County, and Toro Area Plans, GPU4 would have a somewhat greater growth-inducing impact on population and housing to those would the 2007 General Plan.

5.6.3 Conclusion

The GPU4 Alternative is similar to the proposed 2007 General Plan. GPU4 would have a greater impact on agriculture resources; water resources, geology, soils, and seismicity; transportation; air quality; noise; biological resources; public services and utilities; parks and recreation; ; light and glare and population and housing. GPU4 would have similar impacts to the proposed 2007 General Plan with respect to land use; water mineral resources; hazardous material. and cultural resources. It would have not any impacts that are less than those expected to result from the proposed 2007 General Plan.

The GPU4 Alternative meets all of the objectives of the 2007 General Plan.

5.7 Transit-Oriented Development Alternative

5.7.1 Description

The Transit-Oriented Development (TOD) Alternative focuses new development along existing and future transportation corridors. These corridors would be served by high-capacity and high-frequency public transportation. Public transportation in this alternative combines fixed-route bus service with rail, express bus service and Bus Rapid Transit (BRT). Development in these corridors would be concentrated at “nodes” adjoining public transportation stations. Under this alternative, new development outside the Community Areas, Rural Centers, and AHOs would be restricted to the first single-family home on existing legal lots of record in the North County, Greater Monterey Peninsula (along the Route 68 corridor only) Greater Salinas, and Toro (along the Route 68 corridor) Area Plans. The Bradley and Lockwood Rural Centers would be considered third tier development priority areas. They would not be developed until the transit system is funded and built to King City. Otherwise, this alternative would share the same policies as the 2007 General Plan.

For this alternative, the County would develop a Transfer of Development Rights (TDR) program, expanding on that described in Policy LU-1.8. The TDR program would specifically provide for the transfer of development credits from , North County, Greater Monterey Peninsula (along the Route 68 corridor only) Greater Salinas, and Toro (Route 68 corridor) Area Plans to the TODs as receiving areas. This would include TODs in any of the Community Areas and Rural Centers (with the aforementioned limitation on the Bradley and Lockwood Rural Centers).

TOD is defined as “moderate to high-density development, located within an easy walk of a major transit stop (typically up to ½-mile), generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or the redevelopment of one or more buildings whose design and orientation facilitate transit use,” according to the Statewide Transit-Oriented Development Study – Factors for Success in California (California Department of Transportation, 2002). Studies have demonstrated that TOD increases transit ridership and reduces Vehicle Miles of Travel (VMT) when compared to similar intensities of development in areas that are poorly served by transit.

The public transportation serving the TODs would be a combination of fixed-route bus systems, express bus, and BRT systems connecting major activity centers, and regional and intercity rail systems connecting major activity centers within the region and adjacent regions. The TOD Alternative envisions a tiered public transportation system, as follows:

- Tier 1 – local-serving public transportation comprised of fixed-route bus systems primarily serving intra-city and inter-city travel, and rural communities. This tier forms the finest grained public transportation network and is similar to the existing Monterey-Salinas Transit (MST) system. This tier also includes demand responsive service (e.g., paratransit), and local shuttles operated by private or public employers.
- Tier 2 – sub-regional and regional-serving public transportation comprised of express bus and BRT serving key corridors within cities that will connect cities, community areas, and rural communities to major activity and employment centers. This tier of public transportation travels longer distances and relies on high frequency and high quality (e.g., newer comfortable coaches, stations with amenities) of service resulting in a system that is competitive with the automobile. Express buses and BRT lines would operate within High-Occupancy Vehicle (HOV) lanes or exclusive transitways within the public right-of-way. Stops and stations are more widely spaced than in Tier 1 in order to minimize delay. This tier would tie into a system of Park and Ride facilities throughout the County.
- Tier 3 – inter-regional-serving public transportation comprised of express bus, BRT, regional commuter rail, and intercity light rail transit connecting major activity centers in Monterey County to centers in adjacent counties including Santa Cruz, San Benito and Santa Clara Counties. Express bus and BRT lines would operate within High-Occupancy Vehicle (HOV) lanes or exclusive transitways. Rail service would include the following projects

currently being planned or studied by the Transit Agency of Monterey County (TAMC):

- ❑ Extension of Caltrain service from Gilroy to Monterey County, including stops in Pajaro, Castroville, and Salinas.
- ❑ The Monterey Branch line between Castroville and Monterey connecting the planned Caltrain service in Castroville to the Monterey Peninsula, with stations in Monterey, Seaside, Sand City, Marina/CSUMB, and Castroville. The right-of-way may accommodate express bus service, BRT, or light rail.
- ❑ Passenger rail service on the Santa Cruz Branch line extending from Pajaro/Watsonville to Davenport (Santa Cruz County), which would connect to the Monterey County intercity rail service described above.

The three tiers would be linked with inter-modal transit centers at key public transportation junctions. The areas adjoining the inter-modal transit centers would be developed as nodes of transit-oriented development containing a mix of housing types, commercial uses providing everyday services, and jobs.

Primary transit corridors include:

- Route 101 from King City to Salinas (fixed-route and express bus service to the Salinas inter-modal transit center with connection to a series of Park and Ride transit centers along the Route 101 corridor)
- Route 101 from Salinas to San Jose (express bus service with connection to a series of Park and Ride transit centers along the Route 101 corridor)
- Route 68 from Salinas to Monterey (fixed-route, express bus, and BRT service between the Salinas inter-modal transit center and Monterey inter-modal transit center)
- Route 156 from Prunedale to Castroville and Monterey (fixed-route and express bus service with connections to CalTrain and inter-city rail in Castroville)
- Route 1 from Marina to Monterey (express bus and BRT with connections to CalTrain and inter-city rail in Castroville, Marina, and Monterey)
- Route 1 between Watsonville/Pajaro and Monterey (express bus and BRT with connections to Caltrain and inter-city rail along the Route 1 corridor)

This alternative includes transit corridors on County and city roads and streets served by fixed-route bus service, express buses, and limited BRT.

Nodes of TOD would be located along primary transit corridors and centered around inter-modal transit centers and other stops and stations. A target of 30% of growth in unincorporated Monterey County would occur in these nodes (approximately ½-mile radii around transit stops). This target would require higher densities and intensities of land use than currently allowed under the 2007 General Plan. Residential densities would range from a minimum of 15-30 dwelling units per acre in urbanized areas, with at least 50 percent and not more

than 75 percent of the development within the TOD being residential. Commercial uses would require Floor Area Ratios (FARs) ranging from 1.0 to 3.0. Horizontal multi-use (e.g., multiple uses on a floor) and vertical mixed-use (e.g., different types of uses on different floors) development would be encouraged.

Primary TOD nodes would be located in the following areas, but no specific sites have been identified:

- Castroville
- Pajaro
- Former Fort Ord
- Route 68 Corridor

5.7.2 Development Comparison

A comparison of development potential between the TOD Alternative and the 2007 General Plan during the 2030 planning horizon is provided in Table 5-5. The table also identifies the target amount of residential and non-residential development that would occur within transit nodes and corridors. Implementation of the TOD Alternative is equal to the 2007 General Plan, with a shift of development intensity to transit nodes and corridors.

Table 5-5. Comparison: TOD Alternative and Proposed Project (2030)

Category	TOD Alternative	2007 General Plan	Difference (TOD vs. 2007 General Plan)
Residential	21,666 dwelling units	21,666 dwelling units	0 dwelling units
Target housing in Transit Nodes and Corridors (30%)	6,500 dwelling units		

5.7.3 Environmental Effects

5.7.3.1 Land Use

The TOD Alternative would increase densities at the selected nodes. This would decrease intensity elsewhere in the County. While the development would be consistent with the proposed 2007 General Plan, it may conflict with the existing lower-intensity land uses surrounding the nodes. The conflicts would result from increased activity, noise, and light and glare, as discussed below. Unless the TODs are located in existing urbanized areas, this would be a significant and unavoidable impact. Therefore, the TOD alternative would have greater potential impacts with respect to land use than the 2007 General Plan.

5.7.3.2 Agriculture Resources

The TOD alternative would limit future subdivision of land and development to the first single-family resident on existing lots of record within the North County, Greater Monterey Peninsula (along the Route 68 corridor only) Greater Salinas, and Toro (Route 68 corridor) Area Plans. The TDR component would focus development into the TODs. This would reduce development pressures in the unincorporated area. As a result, this alternative would have a lesser impact on agricultural resources than the 2007 General Plan.

5.7.3.3 Water Resources

The TOD Alternative would not reduce the number of potential water users since it would allow the same number of residences as the 2007 General Plan. However, it would substitute medium- to high-density development for low-density development. The higher densities would result in less area for landscaping and a corresponding reduction in water demand.

The TOD Alternative would reduce the intensity of development on existing lots of record throughout the county. That would result in a marginal reduction in water quality impacts from development, since those impacts are already well regulated by the County grading ordinance and the Central Coast RWQCB's regulations.

In sum, this alternative would have a lesser impact on water resources than the 2007 General Plan.

5.7.3.4 Geology, Soils, and Seismicity

The TOD Alternative would reduce the intensity of development on existing lots of record throughout the county. That would result in a marginal reduction in erosion impacts from development, in comparison to the 2007 General Plan, since those impacts are already well regulated by the County grading ordinance and the Central Coast RWQCB's regulations. The impacts of this alternative on geology and seismicity would be the same as the 2007 General Plan since it would result in the same level of development (although covering a smaller geographical area) and the same level of risk.

5.7.3.5 Mineral Resources

There are no differences with respect to development of mineral resources between the TOD and the 2007 General Plan. Therefore, the TOD Alternative would have the same level of impact as the 2007 General Plan.

5.7.3.6 Transportation

A primary objective of the TOD Alternative is to shift people from single occupant vehicles to alternate modes of travel or, by creating walkable mixed-use nodes, to eliminate the need to travel long distances for some trip purposes. Research indicates that TOD can generate about 50 to 75% of the traffic generated by the same amount of land use in typical suburban development patterns poorly served by transit. Conservatively using the lower end of the range, implementation of the TOD Alternative in 2030 could generate fewer daily trips than the 2007 General Plan, and an associated reduction of about 110,000 vehicles miles of travel (VMT) per day.

The TOD Alternative would result in level of service impacts to county roadways, regional roadways and the state highway system. These impacts would be the result of two conditions:

1. Traffic generated by development of allowed land uses in the TOD Alternative, including traffic generated by the TOD itself, would cause county and regional roadways to exceed the LOS D standard, but to a lesser extent than the 2007 General Plan. In addition, although a TOD generates less traffic than the same amount of conventional development, the higher intensity and density of TOD within a relatively small area can create localized traffic impacts.
2. The TOD Alternative calls for the designation of exclusive transitways and HOV lanes on county, city, and regional roadways in order to make public transportation an attractive and competitive option to the automobile. Exclusive transit facilities and HOV facilities on these roadways would utilize travel lanes normally used by automobiles, thereby, while increasing the person capacity of the facility, the transit facilities reduce their automobile capacity. This reduction in capacity would cause some roadways to exceed the LOS D standard.

The TOD Alternative would create impacts related to transportation infrastructure funding. The public transportation system envisioned in this alternative requires a substantial capital investment in transit infrastructure and fleet vehicles, as well as ongoing operations and maintenance costs. The initial capital costs may exceed the capital costs of adding conventional vehicle capacity (i.e., roadway widening), but the investments are more sustainable over a longer period of time than conventional capacity improvements. This alternative, therefore, may create a transportation funding shortfall that is greater than the shortfall associated with conventional transportation funding.

In conclusion, however, the TOD alternative would reduce traffic generation by design and therefore have significantly less impacts with respect to transportation than the 2007 General Plan or any of the other alternatives.

5.7.3.7 Air Quality

The TOD Alternative would reduce VMT throughout the county by reducing the need for short auto trips by locating residences in proximity to day to day services, and by substituting transit trips for auto trips. Where congestion is increased locally, there may be additional emissions of carbon monoxide in comparison to the 2007 General Plan. However, that impact is dependent upon levels of traffic and time at idle. Because the locations and development intensities of the TODs are not known at this time, whether these localized emissions would exceed the air district standards cannot be determined. Overall, by reducing VMT, the TOD Alternative would result in a reduction in the severity of air quality impacts from traffic in comparison to the 2007 General Plan.

5.7.3.8 Noise

This alternative would have a greater noise impact than the 2007 General Plan as a result of improved train service. Sensitive land uses located along the train corridors would be subjected to higher levels of noise as the frequency of passenger trains increases. Some mitigation of this type of transit noise is typically possible, but without information about the types of trains, their frequency, and routes, it is not possible to quantify or qualify the level of mitigation that might be possible. Similarly, without specific information about these noise generators, it would be speculative to attempt to design effective mitigation at this time.

More frequent bus service and BRT along transit corridors would produce noise impacts, particularly as buses accelerate and decelerate at stops. But, increases in bus noise would be intermittent and limited to corridors that already generate vehicle noise. Further, the TODs themselves would be high-density development nodes that would be expected to have urban levels of ambient noise. The reduction in traffic along these roads would tend to reduce the level of noise being produced by individual passenger vehicles, but that change is unlikely to be noticeable. Vehicle noise impacts would be essentially the same as those of the 2007 General Plan.

However, the combination of increased noise in compact TOD areas, and noise from transit would result in potentially greater noise impacts than the 2007 General Plan.

5.7.3.9 Biological Resources

The TOD Alternative would reduce the intensity of development on existing lots of record throughout the county. That would result in a marginal reduction in impacts on biological resources from development in comparison to the 2007 General Plan.

5.7.3.10 Cultural Resources

The TOD Alternative would concentrate development within a smaller area than would the 2007 General Plan. As a result, the potential to disturb cultural resources and result in a significant impact would be less under this alternative.

5.7.3.11 Public Services and Utilities

The TOD Alternative would concentrate most new development occurring outside of the Community Areas, Rural Centers, and AHOs around transit stations. This would make the provision of public services and utilities easier under the General Plan policies requiring services and utilities for new development, the preparation of financing plans for that development, and concurrent installation of services and utilities as development proceeds. The Pajaro Community Area is subject to flood hazard, which would be increased if densities were increased to accommodate a TOD. However, Safety Element Policy S-3.4 would require compliance with Federal Emergency Management Agency floodplain restrictions. This would ensure that development would not increase flood hazards.

The TOD Alternative would result in few impacts from the construction of public facilities. Potentially, there would also be less construction impacts from expansion of roads. There would be impacts from construction of transit hub facilities, but on balance the impacts from the TOD Alternative with respect to public services and utilities would be less than for the 2007 General Plan.

5.7.3.12 Parks and Recreation

The TOD Alternative would result in the same growth in population, demand for parks recreation facilities, and pressure on existing parks and recreation facilities as the 2007 General Plan. Assuming that the mitigation measure including a parks ratio is included in the TOD Alternative, its impacts would be the same as the 2007 General Plan.

5.7.3.12 Hazards and Hazardous Materials

The TOD Alternative would result in the same growth in population as the 2007 General Plan. The potential for exposure to hazards and hazardous materials, with the exception of wildfire hazard, would be essentially the same as the 2007 General Plan, so its impacts would also be the same.

By reducing the potential level of growth on existing rural lots of record within some areas of the county and transferring that potential to the TODs, this alternative would reduce the number of future residences that might be endangered by wildfire. By placing more dwelling units in development nodes,

the alternative would simplify the delivery of fire protection services. This would be a lesser impact than under the 2007 General Plan.

5.7.3.13 Aesthetics, Light, and Glare

The TOD Alternative would result in the same growth in population as the 2007 General Plan, but would increase the number of development nodes beyond the Community Areas, Rural Centers, and AHOs identified in the proposed General Plan. The higher density of development would result in a greater aesthetic impact where TODs are located near rural areas, and a similar increase in light and glare. Policy LU-1.13 of the 2007 General Plan requiring lighting to be unobtrusive would be more effectively applied under the TOD Alternative because it would act to limit light from a limited number of discrete locations, rather than from more intensive development across existing lots of record under the 2007 General Plan. The overall impact would be the same as the 2007 General Plan.

5.7.3.14 Population and Housing

The TOD Alternative would result in the same net growth in population as the 2007 General Plan, but would decrease the number of development nodes by delaying development in the most southern Rural Centers. . Expanded bus and train service, as well as the introduction of BRT, would occur on existing road or rail rights of way and are not expected to result in the displacement of substantial numbers of existing residences. The protections for displaced residents that are discussed above for the 2007 General Plan would similarly apply to the alternative. Therefore, its impacts would be the same as the 2007 General Plan.

5.7.4 Conclusion

The TOD Alternative would further concentrate future development in the unincorporated area into discrete, higher density nodes. While some TODs may overlap the Community Areas and Rural Centers; others may be located in the cities where transit centers would be logically located. This alternative would refocus growth that might have occurred on lots of record by making TODs more attractive to future residents because of the transit improvements, further restricting subdivision in the Greater Monterey Peninsula Area and delaying development of the southernmost Rural Centers in unincorporated County.

The TOD Alternative would reduce impacts on, agricultural resources, water resources, biological resources, air quality, cultural resources, public services and utilities and wildfire hazard relative to the levels described for the 2007 General Plan. It would significantly reduce impacts with respect to traffic as compared to the 2007 General Plan and all of the other alternatives. The impacts on geology, soils and seismicity; mineral resources, parks and recreation; aesthetics, light,

and glare; and population and housing would be essentially the same as the 2007 General Plan. The TOD Alternative would result in greater impacts than the 2007 General Plan in the areas of potential land use conflicts and noise.

The TOD alternative meets all of the objectives of the 2007 General Plan.

5.8 Environmentally Superior Alternative

The qualitative environmental effects of each alternative in relation to the 2007 General Plan are summarized in Table 5-6. The TOD alternative would be the environmentally superior based on the number of reductions to 2007 General Plan impacts.

Table 5-6. Summary of 2007 General Plan Alternatives. .

Topical Area	2007 General Plan	No Project	GPU3	GPI	GPU4	TOD Alternative
Land Use	Significant	Greater	Greater	Less	Same	Greater
Agriculture Resources	Significant	Greater	Greater	Greater	Greater	Less
Water Resources	Significant	Greater	Same	Greater	Same	Less
Geology, Soils, and Seismicity	Less Than Significant	Greater	Greater	Less	Greater	Same
Mineral Resources	Less Than Significant	Same	Same	Same	Same	Same
Transportation	Significant	Greater	Greater	Less	Greater	Less
Air Quality	Significant	Greater	Greater	Less	Greater	Less
Noise	Significant	Greater	Greater	Same	Greater	Greater
Biological Resources	Significant	Greater	Same	Greater	Greater	Less
Cultural Resources	Less Than Significant	Greater	Same	Greater	Same	Less
Public Services and Utilities	Less Than Significant	Greater	Same	Same	Greater	Less
Parks and Recreation	Significant	Greater	Same	Less	Greater	Same
Hazards and Hazardous Materials	Less Than Significant	Greater	Greater	Greater	Same	Less
Aesthetics, Light, and Glare	Significant	Greater	Greater	Less	Greater	Same
Population and Housing	Significant	Same	Greater	Same	Greater	Same

Section 6

Other CEQA Required Sections

6.1 Significant Environmental Effects That Cannot Be Avoided

According to Section 15126.2(a) (b) of the State CEQA Guidelines, an EIR shall identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented. Each of the preceding impact sections has identified those significant impacts that cannot be reduced below a level of significance. The significant, unavoidable impacts are summarized in Table 6-2 at the end of this chapter.

The reader is directed to the various impact sections of this EIR for a more detailed discussion of each of these significant, unavoidable impacts.

6.2 Significant Irreversible Environmental Effects

The environmental effects of the 2007 General Plan are summarized in Section 1.0 (Executive Summary) and are analyzed in detail in Section 4.0 (Impacts and Mitigation Measures) of this EIR.

As mandated by the State CEQA Guidelines Section 15127, an EIR for a general plan must address any significant irreversible environmental change that would result from implementation of that plan. Specifically, per the Guidelines (Section 15126.2[c]), such an impact would occur if:

- the project would involve a large commitment of nonrenewable resources;
- irreversible damage can result from environmental accidents associated with the project; and
- The proposed consumption of resources is not justified (e.g., the project results in the wasteful use of energy.)

Approval and implementation of actions related to the 2007 General Plan would result in an irretrievable commitment of nonrenewable resources such as energy supplies and construction-related materials. The energy resource demands would be used for construction, heating and cooling of buildings, transportation of

people and goods, heating and refrigeration, lighting, and other associated energy needs.

Environmental changes with implementation of the 2007 General Plan would occur as the physical environment is altered through continued commitments of land and construction materials to urban and rural development. There would be an irretrievable commitment of labor, capital, and materials used in construction and a permanent loss of open space. Nonrenewable resources would be committed primarily in the form of fossil fuels and would include oil, natural gas, and gasoline used to support the additional development associated with implementation of the 2007 General Plan.

The consumption of other nonrenewable or slowly renewable resources would result from the development of the 2007 General Plan. These resources would include, but not be limited to, lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, and water. Because alternative energy sources such as solar, geothermal, or wind energy are not currently in widespread local use, it is unlikely that real savings in nonrenewable energy supplies (e.g., oil and gas) could be realized in the immediate future.

Development in unincorporated Monterey County as envisioned by the 2007 General Plan would result in the construction of structures, facilities, or infrastructure on lands that are currently undeveloped. Development of lands generally would result in their future and permanent commitment to urban uses.

6.3 Growth Inducement

CEQA requires a discussion of the ways in which the 2007 General Plan could be growth-inducing. State CEQA Guidelines Section 15126.2(d) identifies a project as growth-inducing if it fosters economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees from commercial and industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area. Examples of development that would indirectly facilitate growth are the installation of new roadways and the construction or expansion of water delivery or treatment facilities.

A project could indirectly induce growth by removing barriers to growth, by creating a condition that attracts additional population or new economic activity, or by providing a catalyst for future unrelated growth in the area. While a project may have a potential to induce growth, it does not automatically result in growth. Growth can happen only through capital investment in new economic opportunities by the public or private sectors.

Typically, the growth-inducing potential of a project is considered significant if it fosters growth or a concentration of population in excess of the existing setting or

baseline. Growth may be induced through the provision of infrastructure or service capacity that would accommodate new development.

By law, Monterey County is required to adopt “a comprehensive, long-term general plan for the physical development of the county” (Government Code Section 65300). The general plan’s housing element is required to include

An identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, financial resources, and scheduled programs for the preservation, improvement, and development of housing. The housing element shall identify adequate sites for housing, including rental housing, factory-built housing, mobile homes, and emergency shelters, and shall make adequate provision for the existing and projected needs of all economic segments of the community. (Government Code Section 65583)

On a regular basis (generally every 5 to 7 years), the Association of Monterey Bay Area Governments (AMBAG) is responsible for adopting the Regional Housing Needs Assessment or RHNA that establishes the share of projected future housing growth that the County must accommodate in its general plan. Unincorporated Monterey County’s current RHNA housing share is 1,554 dwelling units for the current 2007 - 2014 housing element cycle. The current housing element is based on the prior 2000-2007 share and will be amended as necessary to account for the new allocations. A county that does not amend its housing element to reflect the RHNA share is subject to litigation (Government Code Section 65587).

6.3.1 Conclusion

In order to comply with state general plan law, in particular the housing element statute, the 2007 General Plan must provide sufficient opportunities for new residential growth to accommodate its RHNA share. Based on the definition of growth inducement, a general plan is inherently growth-inducing because it must accommodate at least projected housing demand. The 2007 General Plan and related comprehensive land use plans will provide the framework by which public officials will be guided in making decisions relative to development in Monterey County. However, it is the implementation of land use policies that will incrementally increase demands for public services, utilities, and infrastructure.

6.4 Cumulative Impacts

6.4.1 In General

Cumulative impacts result from individually minor, but collectively significant, impacts occurring over a period of time. State CEQA Guidelines Section 15130 requires that an EIR include a discussion of the potential cumulative impacts of a proposed project. Cumulative impacts are defined as two or more individual effects that, when considered together, are significant. The cumulative impact

from several projects is the change in the environment that results from the incremental impact of the development when added to other closely related past, present, and reasonably foreseeable or probable future developments.

As defined in State CEQA Guidelines 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. 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 a mitigation measure or measures designed to alleviate the cumulative impact.

The following elements are necessary to an adequate discussion of significant cumulative impacts:

Either:

1. 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
2. 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.

The determination of a project's cumulative effects involves the identification of the following:

- direct and indirect effects of the proposed action and other projects causing related impacts;
- which resources, ecosystems, and human communities are affected; and
- Whether these effects are cumulatively significant.

State CEQA Guidelines Section 15065(c) states that a mandatory finding of significance is required if the project will make a cumulatively considerable contribution to a cumulative impact. The importance of a project's contribution must be viewed in the context of the cumulative effect. Case law has held that even a small contribution may be cumulatively considerable if the cumulative effect is particularly acute (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98)

Because of the broad project objectives associated with the implementation of the 2007 General Plan, the cumulative analysis presented in this EIR does not

evaluate the site-specific impacts of individual projects. Project-level analyses will be prepared by implementing agencies on a project-by-project basis.

6.4.2 Approach to this Analysis

The cumulative impact analysis in this EIR relies upon the projections approach. Unless so stated, it considers the potential for cumulative contributions at both the horizon year of the general plan in 2030 and buildout of the 2007 General Plan estimated to be in 2092. There are numerous uncertainties about the state of the environment in 2030 and 2092, as well as the protective laws and regulations that may be in effect at that time. Accordingly, the following assessment of cumulative impacts is strictly qualitative because of the infeasibility of predicting the timing, design features, and density of future projects. Many future projects will be the subject of separate environmental studies.

For the most part, the area addressed in the cumulative impact analysis is Monterey County, including its incorporated cities. There are a few notable exceptions to this general statement. The air quality analysis is based on the Monterey Bay air basin. The three-county AMBAG region is the area of analysis for transportation and population/housing since those issues have regional effects. Because biological resources analysis in general assesses cumulative impacts that naturally occur over a larger area than a single county, it is also based on a larger geographic area.

The cumulative impact analysis is based on population growth figures published by AMBAG in its 2004 regional forecast of population, housing, and employment (refer to Chapter 3, Project Description). The 2004 forecast is somewhat higher than AMBAG's recently released 2008 regional forecast. Using the 2004 forecast offers a more conservative view of growth potential. Therefore, using the 2004 AMBAG figures in this analysis would not result in understating the 2007 General Plan's potential for cumulatively considerable contributions.

Population growth and the development associated with it are the major factors contributing to direct impacts on land use, agriculture resources, water resources, transportation, air quality, noise, public services and utilities, and population and housing. In addition, growth can cause secondary impacts on these and other areas, such as biological resources. Therefore, using forecast population growth as a basis for analyzing cumulative impacts is the preferred approach when examining a large project area such as a county general plan.

The interpretation of cumulative impacts is such that, in the presence of a severe cumulative impact, a project's contribution may be considerable even if it is only more than one molecule (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98). This analysis errs on the side of considerable contributions. Where there is a severe cumulative impact, the conclusion is that the 2007 General Plan would make a considerable contribution if it contributes at all.

The magnitude of the 2007 General Plan's contributions to cumulative impacts is different in 2030 than at buildout in 2092. However, the 2007 General Plan would contribute to the same cumulative effects under the both the 2030 planning horizon and 2092 buildout. The following discussion notes any situations where this general rule is not the case.

6.4.2.1 Non-cumulative Impacts

In each of the following instances the 2007 General Plan's contribution does not rise to the level of being considerable.

Geology, Soils, and Seismicity

This is a site specific impact that affects individual development projects and that is adequately mitigated on an individual basis. As discussed in Chapter 4.4, Geology, Soils, and Seismicity, there are numerous state and local regulations that act to reduce geologic and seismic risks to acceptable levels. Project design and building standards avoid the aggregation of individual effects into a significant combined impact. Therefore, there would be no cumulative impact. Soil erosion is the exception to this and is discussed under water quality.

Mineral Resources

By virtue of their location along rivers and in lightly settled portions of the county, the county's mineral resources are not being impacted by overall development and will not have an impact on development.

Cultural Resources

These resources are site-specific and generally of individual value. The exception is where the resource is part of a designated historic district or landscape. In that situation, the cumulative loss of key or contributing resources would lead to eventual loss of the district's or landscape's defining characteristics. There is only one historic districts or landscapes within the lands under county jurisdiction – the town of Spreckles. Otherwise, where such districts exist within Monterey County, they are within cities. City, not county, actions would be the driving force of any potential erosion of those districts.

Spreckles is subject to the county's HR (Historic Review) overlay zone (Monterey County Code Section 21.54.010). This zoning ordinance requires a discretionary conditional use permit prior to structural alterations within the district. The conditional use permit is subject to review by the County's Historic Resources Review Board, as well as the approving authority, in order to ensure that historic integrity is preserved. Therefore, implementation of the 2007 General Plan would not contribute to the loss of those resources.

In addition, the 2007 General Plan has a number of specific policies that will avoid the loss of individual cultural resources. They include the following:

- Policy OS-6.1 provides that important representative and unique archaeological sites and features shall be identified and protected for all parcels with undisturbed natural conditions (i.e., ungraded properties) consistent with State Historic Preservation Office guidelines and definitions employed on a state-wide basis including Phase I, II, and III studies.
- Policy OS-6.2 requires that information on the location and significance of the County's archaeological resources shall be compiled and used in the environment and development review process. The County shall rely on and participate in the state-wide inventory work of the Native American Heritage Commission and the State Office of Historic Preservation. All Phase I, II, and III studies and records of Native Californian consultation shall be filed with appropriate state agencies and local tribes as well as local data source compilations maintained by the County. The County shall work with local tribes to update County GIS maps showing high, moderate and low archaeological sensitivity areas.
- Policy OS-6.3 provides that new development proposed within moderate or high sensitivity zones, or within 150 feet of a known recorded archaeological and/or cultural site, shall complete a Phase I survey including use of the regional State Office of Historic Preservation Clearinghouse or the Native American Heritage Commission's list of sacred and traditional sites.
- Policy OS-6.5 requires the county to establish policies and procedures that encourage development to avoid impacts to sensitive archaeological sites including:
 - designing or clustering development to avoid archaeological site deposits, historic sites and resources, and Native Californian cultural sites;
 - dedicating permanent conservation easements shall be required where subdivisions and other developments can be planned to provide for such protective easements.
- Policy OS-6.6 requires the county to adopt a uniform set of guidelines to define Phase I, II, and III significance assessment and data recovery programs. Similar guidelines will be created to set standards for requirements for consultation with Native Californian descendants to determine procedures for determining the presence or absence of sacred or traditional sites. These guidelines will address monitoring requirements and participation in cultural resource data recovery programs.

In addition, Monterey County Code Section 21.66.050 establishes Standards for Archeological Resource Areas that require preparation of an archeological resource report prior to development, avoidance of known resources when feasible, and implementation of a mitigation plan when avoidance is not feasible. The mitigation plan must include preservation measures. Further, the existing provisions of CEQA protect sites from adverse impacts.

Public Services and Utilities

With the exception of solid waste capacity, these facilities serve particular areas and impacts to one are individual, not cumulative. The provisions of the 2007 General Plan requiring concurrent provision of services to new development (Policies PS-1.1 [Adequate Public Facility and Services (APFS) requirements] through PS-1.6 [Only those developments that have or can provide adequate concurrent public services and facilities shall be approved]) avoid the potential for cumulative impacts. As discussed in Chapter 4.11, Public Services and Utilities, these facilities will have individual construction and operational impacts. They are not, however, expected to be significant. School impacts are not considered significant provided that school impact fees are paid in accordance with Government Code Section 65995. Solid waste is discussed in the following section.

Parks and Recreation

As discussed in Chapter 4.12, Parks and Recreation, the county's supply of parks and recreation facilities far exceeds its target ratio of 3 acres per 1,000 residents. Development under the 2007 General Plan would not exceed that ratio and therefore, would not result in a cumulative effect on parks and recreation.

Hazards and Hazardous Materials

These impacts, with the exception of wildfire hazard, are project- and site-specific and generally of individual concern. The existing provisions of CEQA protect developments from adverse impacts. In addition, as discussed in Chapter 4.13, Hazards and Hazardous Materials, federal, state, and local laws and regulations protect against accidental exposure. Where exposure occasionally occurs, it is individual, not cumulative. Wildfire hazard is discussed in the following section,

6.4.3 2007 General Plan Cumulative Impacts

6.4.3.1 Land Use

There is no cumulative impact on land use, based on the thresholds identified in Chapter 4.1, Land Use. The 2007 General Plan is written to accommodate existing development trends and would not physically divide communities. As discussed in Chapter 4.1, Land Use, instead the 2007 General Plan would center future urban development in existing cities and in Community Areas, Rural Centers, and AHOs where some level of urbanization already exists. Nor would the 2007 General Plan conflict with land use plans. The 2007 General Plan accommodates the existing HCPs in the county. HCPs and NCCPs operate separately from the general plan and future resource conservation plans would be project specific and not conflict with the 2007 General Plan's land uses. Policies BIO-1.2 (Salinas Valley Conservation Plan for kit fox) and BIO-1.5 (Prepare Comprehensive County Natural Communities Conservation Plan by 2030) will

ensure that HCP and NCCP activities are coordinated with land use planning in the future.

Therefore, the project would not make a considerable contribution to a cumulative land use impact.

6.4.3.2 Agriculture Resources

Impact CUM-1 Agricultural Resources.

As discussed in Section 4.2, Agricultural Resources, the Department of Conservation's Farmland Mapping and Monitoring Program has documented a steady trend of loss of prime farmland to other uses statewide. Therefore, loss of farmland is a significant cumulative impact in California. In Monterey County, farmland will be converted to urban uses over time, particularly with the expansion of cities in the Salinas Valley. County land use regulations will limit the loss of farmland on the coastal plain, with the exception of lands within the Castroville Community Area. Development and land use activities under the 2007 General Plan would contribute to the cumulative conversion of Important Farmland to nonagricultural uses illustrated by the Farmland Mapping and Monitoring Program's data.

Implementation of 2007 General Plan goals and policies would partially reduce the impacts resulting from conversion of agricultural lands to urban uses by fostering continued agricultural production through policies such as the AWCP, and through specific policies including the following:

- Policy AG-1.1: prohibits activities that would conflict with on-going agricultural activities.
- Policy AG-1.2: requires buffers adjoining new non-agricultural uses.
- Policy AG-1.3: limits subdivisions in agricultural areas to those that would not conflict with agricultural uses.
- Policy AG-1.12: requires the county to develop a mitigation program with the cities.
- Policies AG-3.1- 3.3: authorize the partial exemption of routine and ongoing agricultural use from county regulations.

Further, the identified Community Areas and Rural Centers to which growth is channeled are mostly located on less productive lands. As discussed under the GPI Alternative in Chapter 5, Alternatives, the housing element mandates under California Planning Law require cities and counties to accommodate future housing need based on growth projections and make infeasible any mitigation or alternative that would prohibit all farmland conversion.

Past trends in Monterey County agriculture indicate that agricultural acreage will remain the same as current conditions or decrease slightly over time. Nonetheless, future conversion of Important Farmland, particularly in the Salinas Valley as its cities grow onto adjoining farmland, remains a significant

unavoidable cumulative impact. While the policies of the 2007 General Plan reduce the potential for additional contributions to this impact from county actions, they will not eliminate losses. Accordingly, the 2007 General Plan will make a considerable contribution to this impact.

6.4.3.3 Water Resources

Water Quality

Impact CUM-2. Surface Water Quality

Activities within the county and cities can affect surface water quality by releasing contaminants through point sources or through stormwater runoff. As discussed in the Project Description, AMBAG has projected continued growth throughout the region, including Monterey County, its cities, and those parts of Santa Cruz County that drain into the Pajaro River and its groundwater basin. The growth of the cities and those county areas identified for urbanization would increase the potential for new point sources, expanded point sources (such as wastewater treatment plants), and urban runoff. Rural and agricultural activities can similarly contribute contaminants from runoff. As discussed in Section 4.3, Water Resources, the SWRCB has listed numerous waterways within the county as “impaired waterways” under Section 303(d) of the Clean Water Act. Discharges to impaired waterways are regulated under the Central Coast RWQCB’s Basin Plan, which includes TMDLs for the impaired waterways. Over time, the Central Coast RWQCB will adopt TMDLs for all impaired waterways in the County. In turn, county and city regulations will be required to limit discharges to the limits set by the TMDLs.

The RWQCB’s conditional agricultural waiver program is preventing sediment-laced runoff from agricultural lands. These regulations are or will be in addition to the County’s existing grading, slope development, and erosion control ordinances. Further, the 2007 General Plan will impose additional requirements on development that will reduce the release of contaminants to surface waters, including the following:

- Policies OS-3.5 and -3.6: require slope development regulations to be adopted.
- Policy S-3.8: requires the county to provide public education/outreach and technical assistance programs on erosion and sediment control.
- Policy OS-3.9: will establish a program that will address the potential cumulative hydrologic impacts of the conversion of hillside rangeland areas to cultivated croplands.
- Policy OS-5.7, as well as state and County regulation of timber harvesting will also limit potential discharges to streams from forestry activities.

These state and local regulations will mitigate the 2007 General Plan’s impact to surface water quality and therefore, the 2007 General Plan’s contribution will not be cumulatively considerable.

Impact CUM-3. Groundwater Quality

Most groundwater supplies and demand originate and exist within the county. The major exception is the Pajaro groundwater basin, which Santa Cruz County and the city of Watsonville share with portions of northern Monterey County. The analysis in Chapter 4.3, Water Resources, considers groundwater supplies in each of the county's groundwater basins (including the Pajaro basin, taking into account the influence of the Santa Cruz county jurisdictions) taking into account the demands of incorporated areas as well as the unincorporated county. Accordingly, this cumulative analysis reflects the entire groundwater basin.

As discussed in Chapter 4.3, Water Resources, a number of Monterey County's groundwater basins have high levels of salt (from seawater intrusion into the aquifer) and other contaminants. Chapter 4.3, Water Resources, describes the numerous projects currently underway or planned (i.e., SVWP, CSIP, Watsonville Water Recycling Project, etc.) that are addressing the issue of seawater intrusion. In addition, the following 2007 General Plan policies would limit groundwater overdraft and minimize resultant seawater intrusion:

- Policy PS-2.6: would establish a Hydrologic Resources Constraints and Hazards Database that would help the county track problem areas.
- Policy PS-3.3: will require the county to develop and apply specific criteria for proof of a long term sustainable water supply for new residential or commercial subdivisions, including water quality, effects on wells in the immediate vicinity, existing groundwater conditions, cumulative impacts and planned growth in the area, and other factors.
- Policy PS-3.6: would restrict the drilling or operation of any new wells in known areas of saltwater intrusion as identified by Monterey County Water Resource Agency until such time as a program has been approved and funded which will minimize or avoid expansion of salt water intrusion into useable groundwater supplies in that area.

Nitrates and other groundwater contaminants enter the aquifers from septic systems, municipal wastewater treatment systems, urban runoff, and routine agricultural practices. Regulations promulgated by the Central Coast RWQCB under the NPDES program limit contamination from the first three sources. The RWQCB's conditional agricultural waiver program limits agricultural runoff as a source. Routine fertilizer use, however, remains a contributor. As discussed earlier, agricultural use is expected to remain the same or decline slightly from existing conditions. As a result, routine fertilizer use is not expected to increase with implementation of the 2007 General Plan. The 2007 General Plan does not contain any explicit policies on the topic of groundwater contaminants other than those identified above for water quality.

While existing regulations and the implementation of the 2007 General Plan policies would reduce impacts to groundwater quality, they would not completely eliminate contributions from new development under the Plan. Therefore, implementation of the 2007 General Plan would result in a cumulatively considerable contribution to the existing cumulative impact of groundwater quality.

The following proposed mitigation measures will also reduce impacts on groundwater quality:

Mitigation Measure WR-1: Support a Regional Solution for the Monterey Peninsula in addition to the Coastal Water Project. This will require cooperation on a long-term, regional solution to groundwater overdraft and other issues. That, in turn, will reduce seawater intrusion.

Mitigation Measure WR-2: Initiate Planning for additional Supplies to the Salinas Valley. This will begin the task of bringing long-term water supplies to the Salinas Valley over the buildout 2092 time frame. This would have reducing seawater intrusion and groundwater overdraft among its objectives.

Mitigation Measures WR-1 and WR-2 hold promise for a long-term solution to the related problems of overdraft and seawater intrusion. Their implementation would reduce, but not eliminate the contribution of 2007 General Plan implementation.

Water Supply

Impact CUM-4. Water Supply

This examines the impacts of the 2007 General Plan on water demand and supply, and the potential to adversely affect groundwater levels. Chapter 4.3, Water Resources, describes the various agency plans that lay out the available water storage, ongoing and future water demand, and existing overdraft conditions within Monterey County, its cities, and the adjoining jurisdictions in the Pajaro Valley. The discussion in Chapter 4.3 considers water supplies by groundwater basin and sub-basin, thereby including affected contributing cities and counties. In the Pajaro basin, this includes Watsonville and a portion of Santa Cruz County.

Cumulative impacts would occur through the existing and projected gaps between water supplies and demand. As discussed in Chapter 4.3, a number of projects are underway or planned that would expand water supplies and reduce overdraft (i.e., Coastal Water Project, CSIP, Watsonville Water Recycling Project, SVWP, etc.). Nonetheless, there will be insufficient supply to support development to the 2030 planning horizon and beyond on the Monterey Peninsula and in the Pajaro Valley. Long term supply in the Salinas Valley will depend upon a future phase of the SVWP to secure additional water from the Salinas River. Mitigation measures WR-1 and WR-2 described above would bring the county together with other agencies to pursue long-term solutions to water supply and maintenance of groundwater levels.

In addition, the 2007 General Plan contains the following policies that would help match water demand to supply and reduce overdraft.

- Policy OS-10.10 would require consideration of sustainable land use strategies (including water conservation and greywater reuse) in the design of future development within Community Areas and Rural Centers.
- Policy PS-2.6 would establish a Hydrologic Resources Constraints and Hazards Database that would help the county to track problem areas.
- Policies PS-3.1 to -3.3 would require proof of availability of a sustainable water supply before new development is allowed. This would slow the growth of demand in the county.
- Policy PS-3.9 would require a program to eliminate overdraft of water basins be developed as part of the Capital Implementation and Financing Plan (CIFP).
- Policies PS-3.13 and -3.14 would establish an ordinance identifying conservation measures to reduce potable water demand and would maximize the use of recycled water as a potable water offset and in agricultural areas where allowed by state regulations.

Nonetheless, future growth planned in the cities (including Watsonville in Santa Cruz County), Community Areas, Rural Centers, Affordable Housing Overlay zones, and wineries will exacerbate the existing water supply and overdraft problems. By 2092 and full buildout, the constraints on the water supply will be even more acute. These policies and mitigation measures WR-1 and WR-2 described above will reduce, but cannot be certain of solving the long-term water supply shortage. Buildout of the 2007 General Plan would make a cumulatively considerable contribution to this cumulative impact.

Impact CUM-5. Indirect Impacts of Water Supply Projects

There are a number of existing and planned projects that are intended to increase water supplies and/or reduce overdraft conditions. These projects would reasonably be expected to have significant environmental impacts. Reasonably foreseeable water supply projects include the desalination plants of the Coastal Water Project and Pajaro/Sunny Mesa Community Services District proposed at Moss Landing. Both of these projects are in the planning stage and no draft EIR has been released for either of them. The SVWP is partially in operation and its impacts are disclosed in and being mitigated under the EIR/EIS prepared for that project by the MCWRA. The CSIP is in operation, as is the Watsonville Water Recycling Plant. Water distribution systems are being installed for both the SVWP and the water from the Watsonville plant. The water distribution pipelines will be installed in agricultural areas and are not expected to have significant effects.

Project impacts would include construction-related air quality emissions, traffic increases, and sediment release; brine disposal during operation (desalination plants); biological impacts (desalination plants); and increased electrical demand (desalination plants). A number of safeguards exist that will act to reduce most of these indirect impacts below the level of significance. For example:

- The Monterey Bay Unified APCD requires construction to follow BMPs to reduce dust. If the construction would exceed the APCD's threshold,

additional measures will be required to ensure that dust does not exceed the threshold. This will avoid contributing to the cumulative impact.

- The EIRs prepared for the desalination plants are expected to require that construction equipment use alternative fuels or other means to reduce their emissions of ozone precursors. Although, depending upon the intensity of construction, there is the potential for a significant impact on air quality from ozone precursors.
- County erosion control regulations and the requirements of the Central Coast RWQCB will prohibit the release of sediment beyond project boundaries. This would avoid contributing to surface water quality impacts.
- Brine from the desalination process is expected to be diluted with cooling water from the Moss Landing power plant and discharged into Monterey Bay. The Central Coast RWQCB will require that brine disposal meet regulatory limits to avoid conflict with the CWA. Therefore, this is not expected to make a considerable contribution to water quality impacts.

Biological impacts, particularly from the release of brine into the Monterey Bay National Marine Sanctuary, are unknown at this point, but would potentially be cumulatively considerable. The effectiveness of any future mitigation measures developed in the EIRs to be prepared for the desalination projects is unknown.

Desalination plants typically are large consumers of electrical energy. The power consumption of the proposed plants would potentially result in a significant effect on electrical supply. This would be analyzed in the EIRs to be prepared for the plants.

Taking a conservative view, the indirect impacts of the water supply projects to be built would potentially make considerable contributions to air quality, biological, and electrical energy use.

6.4.3.4 Transportation

Impact CUM-6. Transportation

Development anticipated by the 2007 General Plan and city growth cumulatively would generate additional traffic volumes that would worsen existing deficient performance conditions on Monterey County roadways. The cumulative contribution of the 2007 General Plan to traffic conditions is analyzed and disclosed in Chapter 4.6, Transportation, and therefore is not repeated here.

6.4.3.5 Air Quality

Impact CUM-7. Air Quality

The Monterey Bay Unified APCD's Air Quality Management Plan (AQMP) establishes the projections of air quality that would result from development within this air basin. The North Central Coast Air Basin is in attainment for all criteria pollutants except ozone (state standard). The significance thresholds set out in the Monterey Bay Unified APCD's CEQA guide are based on the AQMP

and what would be the limits of allowable emissions that would stay within state and federal attainment requirements. The thresholds are essentially indicators of a project's individual and cumulative impacts.

The 2007 General Plan is generally consistent with the objectives of the North Central Coast Air Basin 2008 AQMP. However, vehicle traffic associated with growth under the 2007 General Plan and winery development under the General Plan's AWCP would exceed thresholds for ozone precursors. Policy C-1.2 of the 2007 General Plan requires adoption of a comprehensive Capital Improvement and Facilities Plan that will identify road improvements needed to reduce congestion and supports use of County traffic impact fee to fund related transportation projects. This ultimately would reduce idling and have a corresponding reduction in mobile-source air quality emissions. However, this will not avoid contributions of ozone precursors along roads that will suffer increased congestion as a result of the 2007 General Plan and city growth, nor would it reduce vehicle miles travelled. Further mitigation is infeasible, as discussed in Chapter 4.6, Transportation.

The 50 wineries proposed under the AWCP component of the 2007 General Plan would together emit VOCs in excess of the individual daily limit of 137 pounds established by the AQMP. As discussed in Chapter 4.7, Air Quality, there is no feasible mitigation for winery VOCs.

Therefore, implementation to the 2030 horizon and buildout of the 2007 General Plan in 2092 would make a considerable contribution to the cumulative impact on air quality.

There is also the reasonable possibility that, at the project level, there may be future individual developments whose construction emissions will exceed the APCD's standards. Such cases are rare in that large projects are practically always subject to discretionary permits that require CEQA review. As part of the CEQA process, future mitigation measures would be developed in cooperation with the Monterey Bay Unified APCD to bring construction emissions below the APCD's standards. This is unlikely to contribute to the cumulative effect on air quality.

Further, odiferous future projects such as composting yards or confined animal facilities that are not proposed as part of the 2007 General Plan, but that would be allowable under its provisions, could be installed. If these are clustered in one or more areas of the county, they will have cumulative effects on local air quality. That these uses might occur under the General Plan establish the possibility of additional considerable contributions at buildout of the 2007 General Plan.

6.4.3.6 Noise

Impact CUM-8. Noise

The EIR does not identify any significant direct noise impacts that would result from implementation of the 2007 General Plan at either the 2030 planning horizon or 2092 buildout. A cumulative noise impact exists when the applicable

noise standard is exceeded by 1 dbA or more. Although a 1 dbA change is unnoticeable, it contributes measurably to a significant effect.

Overall traffic volumes across the county are forecast to be about 45% greater than volumes under 2030 conditions. This generally corresponds to a 1 to 2 dB increase in traffic noise. Table 4.8-3 (Traffic Noise Modeling Results) in Chapter 4.8, Noise, illustrates that there will be cumulative significant noise impacts along a number of road segments. The column entitled “2030 Cumulative with Project minus No Project” and “Buildout minus 2030 Cumulative with Project” reflect those places where the county noise standard is forecast to be exceeded by 1 dbA or more. Keep in mind that because traffic is not limited to residents of the unincorporated county, not all of the cumulative impacts along these roads are attributable to the 2007 General Plan. These results are summarized in Table 6-1 below.

Table 6-1. Cumulative Noise Impacts

Segment	Existing Ldn	2030 Cumulative (with Project) Ldn	2030 Cumulative with Project minus No Project	Buildout minus 2030 Cumulative with Project
Espinosa Rd to E Boronda Rd	74	76	1	0
Chualar Rd to Old Stage Rd	72	75	0	2
SR-183 to SR-156	69	71	2	0
Del Monte Blvd to Imjin Pkwy	75	75	0	2
17 Mile Dr to Skyline Forest Dr	67	67	0	1
Canyon del Rey Blvd to Bit Rd	63	64	0	1
Spreckels Blvd to E Blanco Rd	67	68	-1	3
County Road G-15 to Stonewall Canyon Rd	53	54	0	3
Castroville Blvd to US-101	70	70	0	1
Cooper Rd to S Davis Rd	67	70	0	1
US-101 to Cattlemen Rd	45	48	-1	2
Carlton Dr to SR-68	61	62	0	1
Salinas Rd to San Miguel Canyon Rd	54	58	0	1
Strawberry Rd to Castroville Blvd	63	67	2	0
US-101 to San Lucas Rd	52	55	0	2
Carmel Rancho Blvd to Rio Rd	64	65	0	1
Robinson Canyon Rd to Miramonte Rd	61	62	0	2
Las Palmas Rd to Las Palmas Pkwy	60	61	1	3
Drake Ave to Lighthouse Ave	62	65	0	2
Pacific Ave to Forest Ave	56	57	0	2
Forest Ave to David Ave	56	54	0	1
Washington St to Camino Aguajito	66	67	0	2
Abrego St to Camino Aguajito	64	65	0	1
Soledad Dr to Via Zaragoza	64	65	1	2
Playa Ave to Fremont Blvd	61	62	-1	3
N Del Monte Blvd to SR-1	59	59	-1	3
Reindollar Ave to Reservation Rd	67	68	0	2
Casa Verde Wy to SR-218	65	66	0	3
US-101 to Abbott St	65	65	0	2
San Juan Grade Rd to W Laurel Dr	65	66	0	2

Segment	Existing Ldn	2030 Cumulative (with Project) Ldn	2030 Cumulative with Project minus No Project	Buildout minus 2030 Cumulative with Project
US-101 to N Main St	60	63	0	2
Romie Ln to E Blanco Rd	62	62	0	2
Abbott St to US-101	65	65	-1	2
Davis Rd to N Main St	62	62	0	2
W Laurel Dr to SR-183	62	62	0	1
W Alisal St to SR-68	57	57	0	3
SH 101 to Salinas City Line	67	68	0	2
SR-183 to Commercial Pkwy E	60	61	0	0
Reservation Rd to Cooper Rd	68	69	0	1
Carmel Rancho Ln to Rio Rd	53	53	-1	2
Serra Ave to SR-1	58	58	0	3
Blanco Rd to Reservation Rd	65	68	-1	0
Spreckels Blvd to Abbott St	61	63	0	2
Carmel City Line to SR-1	57	57	0	2
San Juan Rd to Santa Cruz County Line	65	67	0	1
Carmel City Line to SR-1	57	58	0	2
SR-1 to Fruitland Ave	60	63	1	1
Salinas City Line to Russell Rd	57	62	0	3
SR-68 to Harkins Rd	57	60	0	1

As discussed in Chapter 4.8, Noise, there are a number of measures that can be taken to attenuate noise impacts to meet county standards. These measures would be equally useful in attenuating cumulative impacts. Noise attenuation is very specific to the circumstances of the area where noise levels are being exceeded, so identifying specific measures to avoid cumulative impacts is neither practical nor effective. The 2007 General Plan includes a number of policies that will act to reduce these increases when applied to individual projects and avoid contribution to the impact. They include, but are not limited to, the following:

- Policy S-7.1: New noise-sensitive land uses may only be allowed in areas where existing and projected noise levels (*Figures 22 A-H and 23 A-E*) are “acceptable” according to *Table S-2* (“Land Use Compatibility for Community Noise”). A Community Noise Ordinance shall be established that addresses, but is not limited to the following: (1) capacity-related roadway improvement projects; (2) construction-related noise impacts on adjacent land uses; (3) new residential land uses exposed to aircraft

operations at any airport or air base; (4) site planning and project design techniques to achieve acceptable noise levels such as: building orientation, setbacks, earthen berms, and building construction practices; (5) design elements necessary to mitigate significant adverse noise impacts on surrounding land uses; and (6) impulse noise. The use of masonry sound walls for noise control in rural areas shall be discouraged.

- S-7.2: Proposed development shall incorporate design elements necessary to minimize noise impacts on surrounding land uses and to reduce noise in indoor spaces to an acceptable level.
- S-7.4: New noise generators may be allowed in areas where projected noise levels (*Figures 22 and 23*) are “conditionally acceptable” only after a detailed analysis of the noise reduction requirements is made and needed noise mitigation features are included in project design.
- S-7.5: New noise generators should generally be discouraged in areas identified as “normally unacceptable.” Where such new noise generators are permitted, mitigation to reduce both the indoor and outdoor noise levels will be required.
- S-7.6: Acoustical analysis shall be part of the environmental review process for projects when: (a) Noise sensitive receptors are proposed in areas exposed to existing or projected noise levels that are “normally unacceptable” or higher according to *Table S-2* (“Land Use Compatibility for Community Noise”) or (b) Proposed noise generators are likely to produce noise levels exceeding the levels shown in the adopted Community Noise Ordinance when received at existing or planned noise-sensitive receptors.
- S-7.7: All discretionary projects which propose to use heavy construction equipment that has the potential to create vibrations that could cause structural damage to adjacent structures within 100 feet would be required to submit a pre-construction vibration study prior to the approval of a building permit. Specified measures and monitoring identified to reduce impacts would be incorporated into construction contracts. Pile driving or blasting are illustrative of the type of equipment that could be subject to this policy.

With implementation of these policies at the project level, the 2007 General Plan will not make a cumulatively considerable contribution to cumulative noise impacts.

6.4.3.7 Biological Resources

Impact CUM-9. Biological Resources

Development of natural lands, whether by urbanization, construction of single-family residences in sensitive habitats, or conversion of woodlands or grazing land to intensive agricultural use results in the loss of natural habitats and associated biological resources. Seawater intrusion may also affect special status species through change in habitat. Implementation of the 2007 General Plan will be one of the factors affecting biological resources. In addition, development of

the cities will impact these resources directly through loss of habitat, and indirectly through increased water demand and its relationship to seawater intrusion.

The state and federal Endangered Species Acts (ESAs), as well as related listings of special status species by the Department of Fish and Game and its federal counterparts, provide a projection of those species that are adversely affected by loss of habitat and other impacts resulting from development throughout their local, state or federal range. These species are identified in Chapter 4.9, Biological Resources. Resources subject to cumulative impact are: special status species; sensitive natural communities, riparian habitat and wetlands; wildlife movement corridors; and potential loss or disturbance of nesting migratory birds and raptors. The 2007 General Plan provides a projection of the cumulative impact of future development on these species, habitats, and resources.

There are a number of current laws and regulations that reduce the impacts of development on biological resources. These include the state and federal ESAs, additional regulations such as streambed alteration agreements (DFG) and wetland permitting (Corps of Engineers, Central Coast RWQCB), the county tree protection ordinance, and CEQA as it applies to individual discretionary projects. The 2007 General Plan proposes a number of policies that would reduce the impact of its implementation. These include the following:

- Policy PS-3.6 provides that the County and all applicable water management agencies will not allow the drilling or operation of any new wells in known areas of saltwater intrusion as identified by Monterey County Water Resource Agency until such time as a program has been approved and funded which will minimize or avoid expansion of salt water intrusion into useable groundwater supplies in that area.
- Policy OS-4.3 requires the protection of estuaries, salt and fresh water marshes, tide pools, wetlands, sloughs, river and stream mouth areas in accordance with state and federal laws. This would avoid impacts to special status species dependent on those habitats.
- Policy OS-5.1 promotes the conservation of critical habitat. This would reduce impacts to special status species (as otherwise defined in Section 15380 of the CEQA Guidelines) to the extent that they are covered under the Federal Endangered Species Act and critical habitat has been identified.
- Policies OS-5.3 and 5.4 encourage careful design of new development and the avoidance of State and federally listed plant and animal species and designated critical habitat for federally listed species. This would similarly reduce impacts to state and federally listed species, but not those special status species (as otherwise defined in Section 15380 of the CEQA Guidelines) that are not included on the state or federal endangered species lists.
- Policy OS-5.16 requires biological surveys and mitigation as part of project consideration. These would implement the above policies.

- Policy OS-5.17 requires the county to mitigate loss of critical habitat in consultation with state and federal agencies. This would reduce impacts to special status species (as otherwise defined in Section 15380 of the CEQA Guidelines) to the extent that they are covered under the state and federal Endangered Species Acts and critical habitat has been identified.

As discussed in Chapter 4.9, Biological Resources these policies would not avoid significant effects and, by implication, cumulatively considerable contributions.

In addition, this EIR recommends the adoption of a number of mitigation measures to address the impacts of the 2007 General Plan. These include:

- BIO-1.1: Baseline Inventory of Landcover, CEQA-Defined Special Status Species Habitat, Sensitive Natural Communities, Riparian Habitat, and Wetlands in Monterey County. This would identify areas of concern so that they could be avoided in project design. That would reduce the potential for significant effects.
- BIO-1.2: Salinas Valley Conservation Plan to preserve habitat for the San Joaquin kit fox in the Salinas Valley. This would provide long-term protection for the species while authorizing development in particular areas. It would avoid cumulative contributions to impacts on this species before the 2030 planning horizon.
- BIO-1.3: Project Level Biological Survey and Avoidance, Minimization, and Compensation for Impacts to CEQA-defined Special-Status Species and Sensitive Natural communities. This would expand considerations of species beyond those formally listed under the state and federal Endangered Species Acts to approximate the list in Section 15380 of the CEQA Guidelines. This would minimize impacts, including cumulative contributions, before the 2030 planning horizon.
- BIO-1.4: By 2030, prepare an Update to the General Plan to identify expansion of existing focused growth areas and/or to identify new focused growth areas to reduce loss of natural habitat in Monterey County. This would provide similar protections to those of mitigation measure BIO-1.4.
- BIO-1.5: By 2030, prepare a Comprehensive County Natural Communities Conservation Plan (NCCP). This would provide similar protections to those of mitigation measure BIO-1.2, but for multiple species. Depending on the species included in the NCCP, this has the potential to avoid cumulative contributions for all special status species (as otherwise defined in Section 15380 of the CEQA Guidelines) in the county.
- BIO-2.1: Stream Setback Ordinance. This will protect riparian habitats and the species that depend on them.
- BIO-2.2 – Oak Woodlands Mitigation Program. This will protect this habitat and the species that depend upon it.
- BIO-2.3 – Add Considerations Regarding Riparian Habitat and Stream Flows to Criteria for Long-Term Water Supply and Well Assessment. This would

expand the types of permits requiring consideration of habitat and stream flows. This would benefit riparian-dependent and fish species.

- **BIO-3.1: Project-Level Wildlife Movement Considerations.** This would expand protections to species that are not listed, such as deer, but that would otherwise be affected by development by loss of movement corridors.
- **BIO-3.2: Remove Vegetation During the Nonbreeding Season and Avoid Disturbance of Nesting Migratory Birds, Including Raptors, as Appropriate (generally September 16 to January 31).** This would expand protections for non-listed, special status birds in keeping with the definition in Section 15380 of the CEQA Guidelines. That would avoid a cumulative contribution.

Together, these would reduce the 2007 General Plan's contribution to cumulative impacts, but in some cases these impacts would still remain considerable. As development continues toward buildout, particularly development of existing lots of record, low-intensity development will cover larger expanses of the county's jurisdiction (federal lands such as Fort Hunter Liggett and Los Padres National Forest and state parks, which provide substantial areas of habitat within the county would not be affected). Similarly, expansion of the cities, which is outside the control of Monterey County, will impact habitats adjoining urban areas. Non-discretionary activities, such as the conversion of grassland to intensive agriculture, will also continue to contribute to the larger impact on these resources. Because the extent and species coverage of the future NCCP is unknown, there is a potential for cumulative impacts on special status species not covered by the NCCP. As a result, there would be a considerable contribution to cumulatively significant biological impacts.

6.4.3.8 Public Services and Utilities

Impact Cum-10. Solid Waste

As discussed in Section 4.11, Public Services and Utilities, future growth anticipated with build out of the 2007 General Plan would exceed landfill capacity, as tracked by the California Integrated Waste Management Board, by buildout in 2092. Landfills serve both city and county dwellers and businesses.

The Integrated Waste Management Act will continue to require reduction, recycling, and reuse to reduce the amount of waste sent to landfills. Future efforts to reduce greenhouse gas emissions are likely to include regulations requiring the further reduction and recycling of solid waste, including building materials. This should reduce the wastestream requiring disposal in landfills. Nonetheless, existing landfill capacity will be exceeded by 2092. To be conservative, the long-term contribution of 2007 General Plan buildout is expected to be considerable.

Assuming that landfills will be constructed between 2008 and buildout, development of a new or expanded landfill typically results in numerous environmental impacts. Construction impacts typically include air quality emissions from dust and machinery, temporary increases in traffic, and effect on

surrounding biological resources. Landfills are typically located away from sensitive receptors, so noise impacts would be minimal during construction and operations. Operational impacts can include air quality impacts resulting from odors and the release of landfill gases, biological impacts on the area of the expansion or location, traffic impacts from trucks going to and from the landfill, water quality impacts from storm runoff or leaching, and aesthetics impacts resulting from removal of existing vegetation and landfill cover.

Existing air quality regulations and standard traffic control measures would reduce construction impacts. However, depending upon the intensity of construction, there is the potential for significant effects. Similarly, existing regulations of the Monterey Bay Unified APCD would regulate odors and the release of landfill gas such that air quality standards would not be exceeded. Similarly, the Central Coast RWQCB and the California Integrated Waste Management Board would regulate landfill operations so that no runoff escapes the site and landfill design and monitoring wells ensure that no leachate is released to either surface or groundwater. These sets of regulations would reasonably be expected to avoid a contribution to cumulative air and water quality impacts.

Biological impacts, although dependent upon the sensitivity of the area chosen for the expansion or new landfill would potentially be significant and would contribute to cumulative impacts on biological resources. Aesthetics impacts, again dependent upon the visibility of the landfill site, would potentially be significant and contributors to visual impacts.

6.4.3.9 Wildfire Hazard

Impact CUM-11. Wildfire Hazard

Portions of Monterey County, particularly west of the Salinas Valley, are highly susceptible to wildfire. The risk of wildfires is acute in areas of high fuel loading; somewhat less so in moderate fuel loaded areas. As described in Chapter 4.13, Hazards and Hazardous Materials, the 2007 General Plan and the Fort Ord Master Plan contain detailed requirements for and limitations on future development to avoid contributing to fire risk, limiting damage through provision of defensible space, and funding fire suppression services.

In the recent past, the Basin Fire and Indian Fire devastated areas around Big Sur and inland southern portions of the Salinas Valley. These are only the latest of many catastrophic wildfires originating in rugged terrain along the coast. The state parks and National Forest have suffered the brunt of the damage from these fires, primarily because populations are low and communities in the area are small. The 2007 General Plan would encourage development within several Rural Centers that would place additional residents in areas that have the potential for wildfires. In addition, development to 2092 buildout would include existing rural lots of record, some in areas of high or moderate fire hazard; placing new residents in the literal line of fire.

Chapter 4.13, Hazards and Hazardous Materials, describes the voluminous policies and requirements that will be applied to new development under the 2007 General Plan. In the interest of space, the reader is referred to that chapter. These policies, implemented well before 2030 and in place long before 2092, would greatly reduce the potential contribution of the 2007 General Plan to the risk of wildfires. However, the 2007 General Plan cannot eliminate the risk of catastrophic wildfires originating on public lands sweeping across Rural Communities and, more particularly, individual lots of record, despite the best efforts of fire fighters to slow or halt their approach. The 2007 General Plan would make a cumulatively considerable contribution to this risk.

6.4.3.10 Aesthetics, Light and Glare

Impact CUM-12. Aesthetics, Light, and Glare

Future growth in Monterey County and development in surrounding areas would result in the intensification of existing urban uses as well as conversion of open space into urban land uses and the introduction of new sources of light and glare. City growth also would have a cumulatively considerable contribution in this regard. Aesthetics impacts occur as a result of substantial changes in pleasant views. Light and glare are impacts where undeveloped or rural lands adjoin urbanized development or where new sources of light and glare are introduced into a dark environment. The county General Plan and city general plans essentially describe the factors that will change the existing landscape and result in aesthetics, light, and glare impacts. Individual projects under these county and city plans that result in the urbanization of open lands, development on ridgelines, and expansion of urban areas all contribute to the incremental loss of aesthetically pleasing views or the introduction of incompatible light and glare.

Development under the 2007 General Plan would be primarily centered on the existing cities, and the county's designated Community Areas, Rural Centers, and AHOs. For the most part, these would minimize aesthetics impacts caused by the conversion of open lands to urban development by building adjacent to existing development. Nonetheless, particularly in cities in the Salinas Valley where the surrounding land use is agricultural fields, there will be an incremental change in the visual character of the area. Also, buildout of the county's individual lots of record will result in a more expansive distribution of low-intensity development than exists today.

The 2007 General Plan has a number of policies to reduce its contribution to visual impacts. They include the following:

- Policy LU-1.10 will discourage new off-site advertising to enhance public safety and to avoid visual clutter and scenic intrusion. Off site advertising may only be considered in heavy commercial and industrial zoning districts and not abutting residential districts.
- Policy LU-1.13 provides that all exterior lighting is to be unobtrusive and constructed or located so that only the intended area is illuminated, long

range visibility is reduced of the lighting source, and off-site glare is fully controlled (based on design criteria to be developed by the county).

- Policy OS-1.3 restricts new development on ridgelines.
- Policy OS-1.7 will lead to a transfer of development rights program to direct development away from areas with unique visual or natural features.
- Policies OS-1.9 and -1.11 require the establishment of an inventory of viewsheds and encourage project design that protects those views.

Nonetheless, the slow transition of areas away from agriculture and open lands, and the expansion of the urban edge, where light and glare intrude on nearby less-developed lands; will result in a considerable contribution to the cumulative loss of landscape aesthetic quality. Because of California Planning Law requires counties and cities to provide for projected housing needs and the associated urban growth, this contribution cannot be fully avoided.

6.4.3.11 Population and Housing

Impact CUM-13. Population and Housing

The cumulative contribution of population and housing growth in Monterey County will be examined to the year 2030 planning horizon since “buildout” numbers are not available for Santa Cruz and San Benito Counties, the other counties in the AMBAG region. However, the type of contribution at buildout is not expected to differ greatly from the type of contribution in 2030 because these contributions are common to long-term growth, whether the term is 20 years or 80 years.

The AMBAG 2004 regional forecast estimates that by 2030 the total population of Monterey County (including the cities) will total 602,731 persons residing in 187,001 dwelling units. Of this, the unincorporated county would accommodate 135,375 persons (about 22% of the total) and the cities would accommodate 467,356 persons (about 78% of the total). Region-wide (Santa Cruz, Monterey, and San Benito Counties), the population is expected to grow to 991,370 persons by 2030. This would represent a 39% increase between 2000 and 2030, for an annual growth rate of 1.3 %. By comparison, the California Department of Finance currently projects that the State’s annual growth rate between 2000 and 2030 will be about 1.5% (State of California, Department of Finance 2007). Growth in Monterey County and its neighboring counties is cumulatively significant. Although the 30-year annual rate of growth is projected to be less than the statewide average, the adverse changes inherent in growth here (e.g., aesthetics, water supply, traffic congestion) and the controversy over Monterey County growth indicate that it is a significant cumulative impact.

As discussed previously in Chapter 4.15, Population and Housing, the 2007 General Plan is growth-inducing by nature of its role in accommodating new housing opportunities under California Planning Law. Because California Planning Law mandates that each city and county plan for its fair share of the regional housing need and that need is based on projections of population growth, there is no feasible mitigation for the resultant increase in population and

dwelling units. Therefore, the 2007 General Plan would make a considerable contribution to this cumulative effect.

There is no cumulative impact with regard to residential displacement or housing replacement. As discussed in Chapter 4.15, Population and Housing, the 2007 General Plan would not result in substantial displacement, nor would it require substantial replacement housing as a result of displacement.

6.4.3.12 Climate Change

Impact CUM-14. Climate Change

Climate change is a global phenomenon driven by myriad individual actions, large and small, in every country. As explained in Chapter 4.16, Climate Change, no individual project within Monterey County is large enough in itself to trigger global climate change. However, most individual projects contribute to the greenhouse gas emissions that fuel climate change. Climate change is a cumulative impact. Accordingly, the climate change analysis in Chapter 4.16 is an analysis of the project's contribution to this cumulative impact. The reader is directed to that chapter and no additional discussion is needed here.

Table 6-2. Significant and Unavoidable Impact Table

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
4.2 Agriculture Resources		
Impact AG-1: Implementation of the 2007 General Plan would result in the conversion of Important Farmland to non-agricultural use. [Also cumulative impact]	No feasible mitigation beyond the 2007 General Plan goals and policies is available.	2030 - Significant Unavoidable Impact. Buildout – Significant Unavoidable Impact.
Implementation of the 2007 General Plan would involve other changes in the existing environment which, due to their location or nature, would result in conversion of farmland to non-agricultural use. [Also cumulative impact]	No feasible mitigation beyond the 2007 General Plan goals and policies is available.	2030 - Significant Unavoidable Impact. Buildout – Significant Unavoidable Impact.
4.3 Water Resources		
Impact WR-4: Land uses and development consistent with the 2007 General Plan would exceed the capacity of existing water supplies and necessitate the acquisition of new supplies to meet expected demands. [Also cumulative impact]	<p>2030 Mitigation WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project</p> <p>2092 Mitigation WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project WR-2: Initiate Planning for Additional Supplies to the Salinas Valley BIO-2.3: Add Considerations Regarding Riparian Habitat and Stream Flows to Criteria for Long-Term Water Supply and Well Assessment. (see Section 4.9 Biological Resources, below).</p>	2030 - Significant Unavoidable Impact (In some portions of the County). Buildout – Significant Unavoidable Impact (In some portions of the County).
Impact WR-5: Land uses and development consistent with the 2007 General Plan would increase the demand for water storage, treatment, and conveyance facilities that could have significant secondary impacts on the environment.	The General Plan and Area Plan goals and policies will apply. Future projects will be subject to CEQA and have specific mitigation measures. As the experience with existing large-scale water supply projects shows, impacts cannot always be mitigated to a less than significant level.	2030 –Significant Unavoidable Impact. Buildout – Significant Unavoidable Impact.

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
<p>Impact WR-6: Land uses and development consistent with the 2007 General Plan would increase demand on groundwater supplies in some areas; the associated increased well pumping would result in the continued decline of groundwater levels and accelerated overdraft in portions of the county. [Also cumulative impact]</p>	<p>2030 Mitigation WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project 2092 Mitigation WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project WR-2: Initiate Planning for Additional Supplies to the Salinas Valley</p>	<p>2030 - Significant Unavoidable Impact (In some portions of the County). Buildout – Significant Unavoidable Impact.</p>
<p>Impact WR-7: Land uses and development consistent with the 2007 General Plan would increase demand on groundwater supplies in areas currently experiencing or susceptible to saltwater intrusion. Increased groundwater pumping in certain coastal areas would result in increased saltwater intrusion in some areas of the county. [Also cumulative impact]</p>	<p>2030 Mitigation WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project 2092 Mitigation WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project WR-2: Initiate Planning for Additional Supplies to the Salinas Valley</p>	<p>2030 - Significant Unavoidable Impact (In some portions of the County). Buildout – Significant Unavoidable Impact (In all of the County).</p>
<p>Impact WR-12: Land uses and development consistent with the 2007 General Plan would allow continued development in 100-year flood hazard areas.</p>	<p>2092 Extent and locations of future impact are unknown; no mitigation is feasible.</p>	<p>Buildout – Significant Unavoidable Impact.</p>
<p>Impact WR-13: The placement of land uses and structures within Special Flood Hazard Areas would impede or redirect flood flows, resulting in secondary downstream flood damage, including bank failure.</p>	<p>2092 Extent and locations of future impact are unknown; no mitigation is feasible.</p>	<p>Buildout – Significant Unavoidable Impact.</p>
<p>Impact WR-14: Potential failure of levees or dams would expose people and structures to inundation and result in the loss of property, increased risk, injury, or death.</p>	<p>2092 Extent and locations of future impact are unknown; no mitigation is feasible.</p>	<p>Buildout – Significant Unavoidable Impact.</p>
<p>4.6 Transportation</p>		
<p>Impact TRAN-1B: Development of the land uses allowed under the 2007 General Plan would create traffic increases on County and Regional roadways which would cause the LOS to exceed the LOS</p>		<p>Less Than Significant Impact.</p>

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
<p>standard, or contribute traffic to County and Regional roads that exceed the LOS standard without development.</p>	<p>TRAN-1B-a: Circulation Element Policy C-1.2 shall be amended to state:</p> <p>C-1.2 The standard for the acceptable level of service (LOS) is to be achieved by 2026. That LOS standard is to be achieved through the development and adoption of Capital Improvement and Financing Plans (CIFP) and implementing ordinances that:</p> <ul style="list-style-type: none"> a. Define benefit areas to be included in the CIFP. Benefit areas could include Planning Areas, Community Areas, or the County as a whole. b. Identify and prioritize the improvements to be completed in the benefit areas over the life of the General Plan. c. Estimate the cost of the improvements over the life of the General Plan. d. Identify the funding sources and mechanisms for the CIFP to include, but not limited to, a Traffic Impact Fee (TIF). e. Provide an anticipated schedule for completion of the improvements. f. Coordinate with TAMC regional fee program. g. A TIF shall be implemented to ensure a funding mechanism for transportation improvements to county facilities. The TIF shall be imposed on development in cities for the improvement of major County roads in accordance with the Monterey County 2007 General Plan. <p>The CIFP shall be reviewed every five (5) years in order to evaluate the effectiveness of meeting the LOS standard for County roads. Road segments or intersections identified to be approaching or below LOS D shall be a high priority for</p>	<p>Significant Unavoidable Impact.</p>

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	funding. TRAN-1B-b: Circulation Element Policy C-1.8 shall be amended to state: C-1.8 “Development proposed in cities and surrounding jurisdictions shall be carefully reviewed to assess the proposed development’s impact on the County’s circulation system. The County, in consultation with TAMC and Monterey County cities, shall develop a Traffic Impact Fee that addresses impacts of development in cities and unincorporated areas on major County roads.”	
Impact TRAN-1B: Development of the land uses allowed under the 2007 General Plan would create traffic increases on County and Regional roadways which would cause the LOS to exceed the LOS standard, or contribute traffic to County and Regional roads that exceed the LOS standard without development.	No mitigation is feasible.	2030 -- Significant Unavoidable Impact.
Impact TRAN 1-E: Growth in land uses allowed under the 2007 General Plan would result in inadequate emergency access.	TRAN-1E: Revise Safety Element S-4.27 on increasing roadway connectivity to enhance emergency access. S-4.27 The County shall continue to review the procedure for proposed development, including minor and major subdivisions, and provide for an optional pre-submittal meeting between the project applicant, planning staff, and fire officials. In addition, the County shall review Community Area and Rural Center Plans, and new development proposals for roadway connectivity that provides multiple routes for emergency response vehicles. At the time of their update, Community Area and Rural Center Plans shall identify primary and secondary response routes. Secondary response routes shall be required to accommodate through traffic and may be existing roads, or may be new roads required as part of development proposals. The emergency route and connectivity plans shall be coordinated with the appropriate Fire District.	2030 – Significant Unavoidable Impact.
Impact TRAN-2B: Development of the land uses allowed under the 2007 General Plan cumulatively with development in incorporated	No mitigation is feasible for County and Regional roadways	2030 – Cumulatively

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
<p>cities and in adjacent counties would create traffic increases on County and Regional roadways which would cause the LOS to exceed the LOS D standard, or contribute traffic to County and Regional roads that exceed the LOS standard without development.</p>	<p>outside of the CVMP.</p> <p>TRAN-2B: Revise policies in the Carmel Valley Master Plan as follows:</p> <p>Policy CV-2.10. The following are policies regarding improvements to specific portions of Carmel Valley Road:</p> <ul style="list-style-type: none"> a) Via Petra to Robinson Canyon Road. Every effort should be made to preserve its rural character by maintaining it as a 2-lane road with paved shoulders, passing lanes and left turn channelizations at intersections where warranted. b) Robinson Canyon Road to Laureles Grade. Every effort should be made to preserve its rural character by maintaining it as a 2-lane road with paved shoulders, passing lanes and left turn channelizations at intersections where warranted. c) Carmel Valley Road/Laureles Grade. A grade separation should be constructed at this location instead of a traffic signal. The grade separation needs to be constructed in a manner that minimizes impacts to the rural character of the road. An interim improvement of an all-way stop or stop signal is allowable during the period necessary to secure funding for the grade separation. d) Laureles Grade to Ford Road. Shoulder improvements and widening should be undertaken here and extended to Pilot Road, and include left turn channelization at intersections as warranted. e) East of Esquiline Road. Shoulder improvements should be undertaken at the sharper curves. Curves should be examined for spot realignment needs. f) Laureles Grade improvements. Improvements to Laureles Grade should consist of the construction of shoulder widening, spot realignments, passing lanes and/or paved turn-outs. Heavy vehicles should be 	<p>Considerable Impact (most of county).</p>

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	<p>discouraged from using this route.</p> <p>Policy CV-2.12: To accommodate existing and future traffic, the following road improvements are recommended:</p> <ul style="list-style-type: none"> a) Add a northbound climbing lane between Rio Road and Carmel Valley Road; b) Laureles Grade - undertake shoulder improvements, widening and spot realignment; c) Carmel Valley Road, Robinson Canyon Road to Ford Road - add left turn channelization at all intersections. Shoulder improvements should be undertaken. <p>Policy CV-2.18 : To implement traffic standards to provide adequate streets and highways in Carmel Valley, the County shall conduct and implement the following:</p> <ul style="list-style-type: none"> a) Twice yearly monitoring by Public Works (in June and October) of peak hour traffic at the following 12 locations: <ul style="list-style-type: none"> ▪ Carmel Valley Road - ▪ East of Holman Road ▪ Holman Road to Esquiline Road ▪ Esquiline Road to Ford Road ▪ Ford Road to Laureles Grade ▪ Laureles Grade to Robinson Canyon Road ▪ Robinson Canyon Road to Schulte Road ▪ Schulte Road to Rancho San Carlos Road ▪ Rancho San Carlos Road to Rio Road ▪ Rio Road to Carmel Rancho Boulevard ▪ Carmel Rancho Boulevard to SR1 Other Locations - <ul style="list-style-type: none"> ▪ Carmel Rancho Boulevard between Carmel Valley Road and Rio Road 	

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	<ul style="list-style-type: none"> ▪ Rio Road between its eastern terminus and SR 1 b) A yearly evaluation report (December) shall be prepared jointly by the Public Works and Planning Departments and shall evaluate the peak-hour level of service (LOS) for these 12 locations to indicate segments approaching a traffic volume which would lower levels of service below the LOS standards established below under CV 2-18(d). c) Public hearings shall be held in January immediately following a December report in (b) above in which only 100 or less peak hour trips remain before an unacceptable level of service (as defined by CV 2-18(d)) would be reached for any of the 12 segments described above. d) The traffic LOS standards (measured for peak hour conditions) for the CVMP Area shall be as follows: <ul style="list-style-type: none"> ▪ Signalized Intersections – LOS of “C” is the acceptable condition. ▪ Unsignalized Intersections – LOS of “F” or meeting of any traffic signal warrant are defined as unacceptable conditions ▪ Carmel Valley Road Segment Operations: <ul style="list-style-type: none"> □ LOS of “C” for Segments 1, 2, 8, 9, and 10 is an acceptable condition; □ LOS of “D” for Segments 3, 4, 5, 6, and 7 is an acceptable condition. 	
	<p>During review of development applications which require a discretionary permit, if traffic analysis of the proposed project indicates that the project would result in traffic conditions that would exceed the standards described above in CV 2-18(d) after the analysis takes into consideration the Carmel Valley Traffic Improvement Program to be funded by the Carmel Valley Road Traffic Mitigation Fee, then approval of the</p>	

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	<p>project shall be conditioned on the prior (e.g. prior to project-generated traffic) construction of additional roadway improvements OR an Environmental Impact Report shall be prepared for the project. Such additional roadway improvements must be sufficient, when combined with the projects programmed in the Carmel Valley Traffic Improvement Program, to allow County to find that the affected roadway segments or intersections would meet the acceptable standard upon completion of the programmed plus additional improvements. This policy does not apply to the first single-family residence on a legal lot of record.</p> <p>Policy CV-2.19: Carmel Valley Traffic Improvement Program (CVTIP)</p> <p>a) The CVTIP shall include the following projects (unless a subsequent traffic analysis identifies that different projects are necessary to maintain the LOS standards in Policy CV-2.18(d):</p> <ul style="list-style-type: none"> ▪ Left-turn channelization on Carmel Valley Road west of Ford Road; ▪ Shoulder widening on Carmel Valley Road between Laureles Grade and Ford Road; ▪ Paved turnouts, new signage, shoulder improvements, and spot realignments on Laureles Grade; ▪ Grade separation at Laureles Grade and Carmel Valley Road (an interim improvement of an all-way stop or stop signal is allowable during the period necessary to secure funding for the grade separation); ▪ Sight Distance Improvement at Dorris Road; ▪ Passing lanes in front of the proposed September Ranch development; ▪ Passing lanes opposite Garland Park; 	

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
Impact TRAN-2E: Growth in land uses allowed under the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, would result in inadequate emergency access.	<ul style="list-style-type: none"> ▪ Climbing Lane on Laureles Grade; ▪ Upgrade all new road improvements within Carmel Valley Road Corridor to Class 2 bike lanes; ▪ Passing lane (1/4 mile) between Schulte Road and Robinson Canyon Road; and ▪ Passing lane (1/4 mile) between Rancho San Carlos Rd and Schulte Road. <p>b) The County shall adopt an updated fee program to fund the CVTIP.</p> <p>c) All projects within the CVMP area and within the “Expanded Area” that contribute to traffic within the CVMP area shall contribute fair-share traffic impact fees to fund necessary improvements identified in the CVTIP, as updated at the time of building permit issuance.</p> <p>d) Where conditions are projected to approach unacceptable conditions (as defined by the monitoring and standards described above under CV 2-18(d)), the CVTIP shall be updated to plan for and fund adequate improvements to maintain acceptable conditions.</p>	2030 – Cumulatively Considerable Impact
Impact TRAN-3B: Buildout of the 2007 General Plan would increase traffic on County and Regional roadways which would cause the LOS to exceed the LOS D standard, or contribute traffic to County and Regional roads that exceed the LOS standard without development.	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-1E (described above) is available.	Buildout – Significant Unavoidable Impact.
Impact TRAN-3E: Buildout of the 2007 General Plan would result in inadequate emergency access.	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-1E (described above) is available.	Buildout – Significant Unavoidable Impact.

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
Impact TRAN-4B: Buildout of the 2007 General Plan cumulatively with development in incorporated cities and in adjacent counties would create traffic increases on County and Regional roadways which would cause the LOS to exceed the LOS D standard, or contribute traffic to County and Regional roads that exceed the LOS standard without development.	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-2B (described above) is feasible.	Buildout – Significant Unavoidable Impact.
Impact TRAN-4E: Buildout of the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, would result in inadequate emergency access.	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-1E (described above) is available.	Buildout – Significant Unavoidable Impact.
4.7 Air Quality		
Impact AQ-1: Buildout of the 2007 General Plan would conflict with applicable Air Quality Management Plans and Standards.		
Impact AQ-3: Net Change in Ozone Precursor (ROG and NOx) and Particulate Matter.	<p>2030 and 2092 Mitigation</p> <p>CC-2 and CC-3. See these measures under Climate Change, below.</p> <p>AQ-3: Implement MBUAPCD Mitigation Measures for Commercial, Industrial, and Institutional Land Uses</p> <p>AQ-4: Implement MBUAPCD Mitigation Measures for Residential Land Uses</p> <p>AQ-5: Implement MBUAPCD Mitigation Measures for Alternative Fuels</p>	<p>2030 –Significant Unavoidable Impact.</p> <p>Buildout – Significant Unavoidable Impact.</p>

4.8 Noise

N-1: A new policy shall be added to the Noise Hazards section of the Safety Element that states the following:	Less Than Significant Impact.
S-7.x All proposed discretionary residential projects that are within roadway noise contours of 60 CNEL or greater shall include a finding of consistency with the provisions of the Noise Hazards section of the Safety Element and, where appropriate, a project-specific noise impact analysis conducted before final approval. If impacts are identified, a “reasonable and	

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	feasible” mitigation analysis shall be conducted using published Caltrans/Federal Highway Administration guidelines. Any mitigation measures meeting these tests shall be concurrently funded and constructed as part of the roadway improvement.	
	N-2: A new policy shall be added to the Noise Hazards section of the Safety Element that states the following:	Less Than Significant Impact.
	S-7.x All discretionary projects which propose to use heavy construction equipment within 50 feet of a residence, or pile drivers or blasting within 100 feet of a residence (or similar sensitive use) shall be required to submit a pre-construction vibration study prior to project approval. Any specified mitigation and monitoring shall be incorporated into construction contracts.	
	N-3A: A new policy shall be added to the Noise Hazards section of the Safety Element that states the following:	Less Than Significant Impact.
	S-7.x No construction activities 500 feet of a noise sensitive land use during the evening hours of Monday through Saturday, or anytime on Sunday or holidays shall be allowed prior to completion of a noise mitigation study. Noise protection measures, in the event of any identified impact, may include: <ul style="list-style-type: none"> ▪ Constructing temporary barriers, ▪ Using quieter equipment than normal, or, ▪ Temporarily relocating affected persons (hotel vouchers). 	
	N-3B: A new policy shall be added to the Noise Hazards section of the Safety Element that states the following:	
	S-7.x Standard noise protection measures shall be incorporated into all construction contracts. These measures shall include: <ul style="list-style-type: none"> ▪ Construction shall occur only during times allowed 	

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	<p>by ordinance/code unless such limits are waived for public convenience;</p> <ul style="list-style-type: none"> ▪ All equipment shall have properly operating mufflers; and ▪ Lay-down yards and semi-stationary equipment such as pumps or generators shall be located as far from noise-sensitive land uses as practical. <p>No mitigation beyond the 2007 General Plan policies is required.</p>	Less Than Significant Impact.
4.9 Biological Resources		
Impact BIO-1: Potential Adverse Impact on Special-Status Species. [Also Cumulative Impact]	<p><i>All Special Status Species – Program Level</i></p> <p>Mitigation Measure BIO-1.1: Baseline Inventory of Landcover, Special Status Species Habitat, Sensitive Natural Communities, Riparian Habitat, and Wetlands in Monterey County</p> <p>Mitigation Measure BIO-1.2: Salinas Valley Conservation Plan to preserve habitat for the San Joaquin kit fox in the Salinas Valley</p> <p><i>All Special Status Species – Project Level</i></p> <p>Mitigation Measure BIO-1.3: Project Level Biological Survey and Avoidance, Minimization, and Compensation for Impacts to Non-Listed Special-Status Species and Sensitive Natural Communities.</p> <p>Mitigation Measure BIO-1.4: By 2030, prepare an Update to the General Plan to identify expansion of existing focused growth areas and/or to identify new focused growth areas to reduce loss of natural habitat in Monterey County.</p> <p>Mitigation Measure BIO-1.5: By 2030, prepare a Comprehensive County Natural Communities Conservation Plan.</p>	2092 -- Significant Unavoidable Impact.
Impact BIO-2: Potential Adverse Effects on Sensitive Riparian Habitat, Other Sensitive Natural Communities and on Federal and State	Mitigation Measure BIO-1.1, 1.2, 1.3, 1.4, and 1.5 as described above under Impacts to Special Status Species.	2092 - Significant

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
Jurisdictional Waters and Wetlands [Also Cumulative Impact]	Mitigation Measures BIO-2.1, 2.2 and 2.3 as described above.	Unavoidable Impact.
4.11 Public Services and Utilities		
Impact PSU-8: Development and land use activities contemplated in the 2007 General Plan may result in a need for new solid waste facilities or non-compliance with waste diversion requirements. Future solid waste facilities would have a significant effect on the environment.	<p>2092 The County will add the following policy to the 2007 General Plan: Policy PS-5.5 The County will review its Solid Waste Management Plan on a 5-year basis and institute policies and programs as necessary to exceed the wastestream reduction requirements of the California Integrated Waste Management Act. The County will adopt requirements for wineries to undertake individual or joint composting programs to reduce the volume of their wastestream. Specific mitigation measures to reduce the impacts of future solid waste facilities are infeasible because the characteristics of those future facilities are unknown.</p>	Buildout - Significant Unavoidable Impact.
4.12 Parks and Recreation		
	No mitigation beyond the 2007 General Plan policies is necessary.	Less Than Significant Impact.
	No mitigation beyond the 2007 General Plan policies is necessary.	Less Than Significant Impact.
4.13 Hazards and Hazardous Materials		
	No mitigation beyond the 2007 General Plan policies is necessary.	Less Than Significant Impact.
	No mitigation beyond the 2007 General Plan policies is necessary.	Less Than Significant Impact.
	No mitigation beyond the 2007 General Plan policies is necessary.	Less Than Significant Impact.
	No mitigation beyond the 2007 General Plan policies is	Less Than

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	necessary.	Significant Impact.
4.14 Aesthetics, Light, and Glare		
Impact AES-1: Implementation of the 2007 General Plan would result in a substantial adverse effects on scenic vistas. [Significant Cumulative Impact]	No mitigation beyond the 2007 General Plan policies is available.	Significant Unavoidable Impact.
Impact AES-2: Implementation of the 2007 General Plan could result in the degradation of scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. [Significant Cumulative Impact]	No mitigation beyond the 2007 General Plan policies is available.	Significant Unavoidable Impact.
Impact AES-3: Implementation of the 2007 General Plan would substantially degrade the existing visual character or quality of Monterey County. [Also Cumulative Impact]	No mitigation beyond the 2007 General Plan policies is available.	2030 - Significant Unavoidable Impact. Buildout - Significant Unavoidable Impact.
Impact AES-4: Implementation of the 2007 General Plan could create substantial new sources of light and glare that would adversely affect day or nighttime views in the area.	No mitigation beyond the 2007 General Plan policies is available.	2030 - Significant Unavoidable Impact. Buildout - Significant Unavoidable Impact.
4.15 Population and Housing		
Impact POP-1: Implementation of the 2007 General Plan would induce population growth in unincorporated Monterey County.	No feasible mitigation beyond the 2007 General Plan goals and policies is available.	2030 - Significant Unavoidable Impact. Buildout - Significant Unavoidable Impact.
4.16 Climate Change		
Impact CC-1: Development of the 2007 General Plan would contribute considerably to cumulative GHG emissions and global climate change as the County in 2020 would have GHG emissions greater than 72 percent of business as usual conditions. (Cumulative Impact in 2092)	CC-11 (Same as BIO-1.9): By 2030, prepare an Update to the General Plan to identify expansion of existing focused growth areas and/or to identify new focused growth areas to reduce loss of natural habitat in Monterey County and vehicle miles	Buildout - Cumulatively Considerable Impact.

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
	<p>traveled</p> <p>The County shall update the County General Plan by no later than January 1, 2030 and shall consider the potential to expand focused growth areas established by the 2007 General Plan and/or the designation of new focused growth areas. The purpose of such expanded/new focused growth areas would be to reduce the loss of natural habitat due to continued urban growth after 2030. The new/expanded growth areas shall be designed to accommodate at least 80% of the projected residential and commercial growth in the unincorporated County from 2030 to buildout.</p> <p>CC-12: Greenhouse Gas Reduction Plan Requirements Beyond 2030</p> <p>In parallel with the development and adoption of the 2030 General Plan, Monterey County will develop and adopt a Greenhouse Gas Reduction Plan with a target to reduce 2050 GHG emissions by 80 percent relative to 1990 emissions.</p> <p>At a minimum, the Plan shall establish an inventory of current (2030) GHG emissions in the County of Monterey; forecast GHG emissions for 2050 for County operations and areas within the jurisdictional control of the County; identify methods to reduce GHG emissions; quantify the reductions in GHG emissions from the identified methods; identify requirements for monitoring and reporting of GHG emissions; establish a schedule of actions for implementation; and identify funding sources for implementation.</p>	

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List of Acronyms and Abbreviations

9.1 List of Acronyms

AB	Agricultural Buffer
ADA	(Federal) Americans with Disabilities Act
ADT	Average Daily Traffic Volumes
AFY	Acre Feet per Year
AHO	Affordable Housing Overlay
ALUC	Airport Land Use Commission
AMBAG	Association of Monterey Bay Area Governments
APFS	Adequate Public Facilities and Services
ASBS	Areas of Special Biological Significance
ASR	Aquifer Storage and Recovery
AWCP	Agricultural Winery Corridor Plan
AWQA	Agriculture Water Quality Alliance
BLM	Bureau of Land Management
BACT	Best Available Control Technology
BCT	Base Closure Team
BMP	Basin Management Plan
BMP	Best Management Practices
CAA	(Federal) Clean Air Act
CAPP	Collaborative Aquifer Protection Program
CAWD	Carmel Area Wastewater District
CCC	California Coastal Commission
CC&Rs	Covenants, Conditions, and Restrictions
CCR	California Code of Regulations
CCRWQCB	Central Coast Regional Water Quality Control Board
CDFFP	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geologic Survey
CIFP	Capital Improvement and Financing Plans
CIP	Capital Improvement Program
CLUP	Comprehensive Land Use Plans
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRDRP	Carmel River Dam and Reservoir Project
CRMP	Coordinated Resource Management and Planning
CSA	Community Service Area

CSIP	Castroville Seawater Intrusion Project
CWA	(Federal) Clean Water Act
DES	Development Evaluation System
DHS	(State) Department of Health Services
DMA	(Federal) Disaster Mitigation Act
DOGGR	California Division of Oil, Gas and Geothermal Resources
DWR	(State) Department of Water Resources
DWSAP	Drinking Water Source Assessment and Protection
EFH	Essential Fish Habitat
EFZ	Earthquake Fault Zone
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	(Federal) Endangered Species Act
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FIRM	Flood Insurance Rate Map
FORA	Fort Ord Reuse Authority
GIS	Geographical Information Systems
GPU	General Plan Update
GPU1	Monterey County General Plan draft, January 2002
GPU2	Monterey County General Plan draft, February 2003
GPU3	Monterey County General Plan Public Review Draft, January 2004
GPU4	Monterey County General Plan draft, 2006
GPU5	Monterey County General Plan 2007 General Plan
HCP	Habitat Conservation Plan
HMP	habitat management plan
HOV	High Occupancy Vehicle
HWCL	(State) Hazardous Waste Control Law
ITE	Institute of Transportation Engineers
LAFCO	Local Agency Formation Commission
LCP	Local Coastal Program
LOS	Level of Service
LUFT	Leaking Underground Fuel Tank
LUP	Land Use Plan
MBA	Michael Brandman Associates
MBNMS	Monterey Bay National Marine Sanctuary
MBTA	(Federal) Migratory Bird Treaty Act
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MCL	Maximum Contaminant Level
MCOAEOB	Monterey County Operational Area Emergency Operations Plan
MCRMA	Monterey County Resource Management Agency

MCWD	Marina Coast Water District
MCWRA	Monterey County Water Resource Agency
Mg/l	Milligrams per liter
MMI	Modified Mercalli Intensity
MOU	Memorandum of Understanding
MPWMD	Monterey Peninsula Water Management District
MRWMD	Monterey Regional Waste Management District
MRZ	Mineral Resources Zone
MRZ-1	Areas of No Mineral Resource Significance
MRZ-2	Areas of Identified Mineral Resource Significance
MRZ-3	Areas of Undetermined Mineral Resource Significance
MRZ-4	Areas of Unknown Mineral Resources Significance
MSR	Municipal Service Review
MST	Monterey-Salinas Transit
MURP	Model Urban Runoff Program
NCCP	Natural Communities Conservation Plan
NFIP	National Flood Insurance Program
NLP	New Los Padres
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPS	Non-Point Source
NRCS	Natural Resources Conservation Service
OES	(Monterey County) Office of Emergency Services
OMR	California Department of Conservation Office of Mine Reclamation
OWTS	Onsite Wastewater Treatment Systems
PBCSD	Pebble Beach Community Services District
PCBs	polychlorinated biphenyls(
PRC	Public Resources Code
PVWMA	Pajaro Valley Water Management Agency
RCD	Resource Conservation District
RCRA	(Federal) Resource Conservation and Recovery Act
RPF	Registered Professional Forester
RWQCB	Regional Water Quality Control Board
SA	Study Area
SARA	Superfund Amendments and Reauthorization Act
SMARA	Surface Mining and Reclamation Act
SMGB	State Mining and Geology Board
STA	Special Treatment Area
SVSWA	Salinas Valley Solid Waste Authority
SVWP	Salinas Valley Water Project
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAMC	Transportation Agency of Monterey County
TDM	Transportation Demand Management
TDR	transfer of development rights

THP	Timber Harvest Plan
TMDL	Total Maximum Daily Load
UCCE	University of California Cooperative Extension
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
VMT	Vehicle Miles of Travel
WAVE	Waterfront Area Visitor Express
WDR	Waste Discharge Requirement
WMI	Watershed Management Initiative
WQPP	Water Quality Protection Program

9.2 List of Abbreviations

A-P Act	(State) Alquist-Priolo Earthquake Fault Zoning Act
CA	California
CalAm	California-American Water Company
Cal-Water	California Water Service Company
Class I facility	Bicycle Path
Class II facility	Bicycle Lane
Class III facility	Bicycle Route
CO	Carbon Monoxide
dB	Decibel
dBA	The “A-weighted” scale for measuring sound in decibels
General Plan	Monterey County General Plan
Ld	Day-Night Average Sound Level
L _{eq}	The energy equivalent level
MST RIDES	Monterey County’s paratransit program
NO _x	Nitrogen Oxide(s)
O ₃	Ozone
PM _{2.5}	Particulate matter of 2.5 microns in diameter or less
PM ₁₀	Particulate matter of 10 microns in diameter or less
SO ₂	Sulfur Dioxide
UC	University of California

Section 10 Glossary

10.1 Glossary

Acres, Gross - A measure of total land area of any lot including streets, parks and other land dedications.

Acres, Net - The gross area of a site excluding:

- All public and private streets, and streets which provide primary and direct access to a public street.
- Land within any existing or planned drainage easement.
- Schools and parks or other facilities dedicated for public use.

Affordable Housing: Housing that can be purchased or rented by a household with very low, low, or moderate income and based on a household's ability to make monthly payments necessary to obtain housing. Housing is considered affordable when a household pays less than 30% of its gross monthly income (GMI) for housing, including utilities.

Agency - The governmental entity, department, office, or administrative unit responsible for carrying out regulations.

Agricultural Preserve - Land designated for agriculture or conservation. (See "Williamson Act.")

Agriculture - Use of land for the production of food and fiber, on natural prime or improved pasture land.

Air Pollution - Concentrations of substances found in the atmosphere which exceed naturally occurring quantities and are undesirable or harmful in some way.

Alquist-Priolo Earthquake Fault Zoning Act, Earthquake Fault Zone - A seismic hazard zone designated by the State of California within which specialized geologic investigations must be prepared prior to approval of certain new development.

Ambient - Surrounding on all sides; used to describe measurements of existing conditions with respect to traffic, noise, air, and other environments.

Aquifer - An underground, water-bearing layer of earth, porous rock, sand, or gravel, through which water can seep or be held in natural storage. Aquifers generally hold sufficient water to be used as a water supply.

Aquifer Storage and Recovery (ASR) - Method of making use of existing natural aquifers to store excess water to be available or recovered at a time when water is scarce.

Archaeological - Relating to the material remains of past human life, culture, or activities.

Architectural Review - Regulations and procedures requiring the placement and exterior design of structures to be suitable, harmonious, and in keeping with the general appearance, historical character, and/or style of surrounding areas.

Area Plan - A component of the Proposed General Plan Update that establishes specific planning policies for a defined geographical area.

Arterial - A major street carrying volumes of relatively high speed traffic from local and collector streets to and from freeways and other major streets. These streets have controlled intersections and generally provide limited direct access to abutting properties.

Assessment District; Benefit Assessment District - An area within a public agency's boundaries which receives a special benefit from the construction of one or more public facilities. A Benefit Assessment District has no legal life of its own and cannot act by itself. It is strictly a financing mechanism for providing public infrastructure as allowed under the Streets and Highways Code. Bonds may be issued to finance the improvements, subject to repayment by assessments charged against the benefiting properties. Creation of a Benefit Assessment District enables property owners in a specific area to cause the construction of public facilities or to maintain them (for example, a downtown, or the grounds and landscaping of a specific area) by contributing their fair share of the construction and/or installation and operating costs.

Base Flood - A 100-year flood that has a 1% likelihood of occurring in any given year.

Basic Routes - All local roads not designated as Routes of Regional Significance.

Below-Market-Rate (BMR) Housing Unit - Any housing unit specifically priced to be sold or rented to low- or moderate income households for an amount less than the fair-market value of the unit. The U.S. Department of Housing and

Urban Development sets standards for determining which households qualify as “low income” or “moderate income.”

Best Available Control Technology (BACT) - The most stringent emission limit or control technique that has been achieved in practice that is applicable to a particular emission source.

Best Management Practices (BMP) - The combination of conservation measures, structure, or management practices that reduces or avoids adverse impacts of development on adjoining site’s land, water, or waterways, and waterbodies.

Bicycle Path (Class I facility) - A paved route not on a street or roadway and expressly reserved for bicycles traversing an otherwise unpaved area. Bicycle paths may parallel roads but typically are separated from them by landscaping.

Bicycle Lane (Class II facility) - A corridor expressly reserved for bicycles, existing on a street or roadway in addition to any lanes for use by motorized vehicles.

Bicycle Route (Class III facility) - A facility shared with pedestrians and motorists, identified only by signs, and having no pavement markings or lane stripes.

Bikeways - A term that encompasses bicycle lanes, bicycle paths and bicycle routes.

Blue Line Stream - A water body depicted on a United States Geological Survey 7.5-minute quadrangle. Blue line streams are considered navigable water bodies and are therefore subject to the provisions of the Clean Water Act.

Buffer Zone - An area of land separating two distinct land uses which acts to soften or mitigate the effects of one land use on the other.

Building - Any structure having a roof supported by columns or walls for the housing or enclosure of persons, animals, or property of any kind.

Building, Maximum Height - Shall be measured as the vertical distance to the highest point of the roof top of a flat roof or a mansard roof, or to the average height of a pitched or hipped roof measured from that plane connecting the highest and lowest portion of the lot abutting and outside the perimeter of the building footprint. Any fill of any depth or composition beneath or abutting the exterior perimeter of any building shall be included in the calculation of height.

California Environmental Quality Act (CEQA) - A State law that requires state and local agencies to perform environmental review for discretionary actions. CEQA requires that potential environmental impacts be analyzed, disclosed, and mitigated where feasible. (See “Environmental Impact Report”)

Capital Costs - The cost of public improvements or facilities and major pieces of equipment (e.g. utility systems, major roads, communication facilities, and public buildings) that have a useful life of more than three years.

Carbon Dioxide (CO₂) - A colorless, odorless, non-poison gas that is a normal part of the atmosphere.

Carbon Monoxide (CO) - A colorless, odorless, highly poisonous gas produced by automobiles and other machines with internal combustion engines that imperfectly burn fossil fuels such as oil and gas.

Channelization - (1) The straightening and/or deepening of a watercourse for purposes of storm-runoff control or ease of navigation. Channelization often includes lining of stream banks with a retaining material such as concrete. (2) At the intersection of roadways, the directional separation of traffic lanes through the use of curbs or raised islands which limit the paths that vehicles may take through the intersection.

Circulation Element - One of seven State-mandated elements of a local general plan, it contains adopted goals, policies, and implementation programs for the planning and management of existing and proposed thoroughfares and transportation routes correlated with the Land Use Element of the Proposed General Plan Update.

Clean Water Act - A Federal law that regulates discharge into or modification of water bodies. Dischargers and modifiers must comply with the law's permitting requirements.

Clustered Development - Development in which a number of dwelling units are placed in closer proximity than typically permitted, or are attached, with the purpose of minimizing grading and retaining open space areas.

Collector Street - A street serving traffic movements between arterial and local streets, generally providing direct access to abutting properties.

Colluviums - Loose and incoherent deposits, usually at the foot of a slope or cliff and brought there chiefly by gravity.

Combined Sewer/Combination Sewer - A sewer system that carries both sanitary sewage and storm water runoff.

Commercial - A land use classification which permits facilities for the buying and selling of commodities and services.

Community Area - An area designated by the proposed General Plan Update for future development at an urban intensity. Community areas are planned support a mix of land uses and would be served by a full range of urban services such as

emergency services, potable water, wastewater, flood control, parks, schools, and public transit.

Community Facilities District - Under the Mello-Roos Community Facilities Act of 1982 (Government Code Section 53311, et. seq.), a legislative body may create within its jurisdiction a special district that can issue tax-exempt bonds for the planning, design, acquisition, construction, and/or operation of public facilities, as well as provide public services to district residents. Special tax assessments levied by the district are used to repay the bonds.

Community Noise Equivalent Level (CNEL) - A 24-hour energy equivalent level derived from a variety of single-noise events with weighing factors of 5 and 10 dBA applied to the evening (7:00 p.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods, respectively, to allow for the greater sensitivity to noise during these hours. (See “Ldn.”)

Community Redevelopment Agency - A local agency created under California Redevelopment Law, or a local legislative body which has elected to exercise the powers granted to such an agency, for the purpose of planning, developing, re-planning, redesigning, clearing, reconstructing, and/or rehabilitating all or part of a specified area with residential, commercial, industrial, and/or public (including recreational) structures and facilities. The redevelopment agency’s plans must be compatible with adopted community general plans.

Conservation - The management of natural resources to prevent waste, destruction or neglect.

Consistent - Free from variation or contradiction. Programs in the Proposed General Plan Update are to be consistent, not contradictory or preferential. State law requires consistency between a General Plan and implementation measures such as the Zoning Ordinance.

Covenants, Conditions, and Restrictions (CC&Rs) - A term used to describe restrictive limitations which may be placed on property and its use and which usually are made a condition of holding title or lease.

Cul-de-sac - A short street or alley with only a single means of ingress and egress at one end and with a large turnaround at its other end.

Cumulative Impact - As used in CEQA, the total impact resulting from the accumulated impacts of individual projects or programs over time.

dB - Decibel; a unit used to express the relative intensity of a sound as it is heard by the human ear.

dBA - The “A-weighted” scale for measuring sound in decibels; weighs or reduces the effects of low and high frequencies in order to simulate human hearing.

Dedication - The turning over by an owner or developer of private land for public use, and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used.

Dedication, In lieu of - Cash payments which may be required of an owner or developer as a substitute for a dedication of land, usually calculated in dollars per lot, and referred to as in lieu fees or in lieu contributions.

Density - The number of residential dwelling units per acre of land. Densities specified in the General Plan are expressed in units per net developable acre. (See “Acres, Gross,” and “Acres, Net.”)

Density Bonus - The allocation of development rights that allow a parcel to accommodate additional square footage or additional residential units beyond the maximum for which the parcel is zoned, usually in exchange for the provision or preservation of an amenity at the same site or at another location.

Desalination - The process of removing salts (and other chemicals) from saline water, most commonly, sea or ocean water.

Design Review - The comprehensive evaluation of a development and its impact on neighboring properties and the community as a whole, from the standpoint of site and landscape design, architecture, materials, colors, lighting, and signs, in accordance with a set of adopted criteria and standards.

Detention Dam/Basin/Pond - Facilities classified according to the broad function they serve, such as storage, diversion, or detention. Detention dams are constructed to retard flood runoff and minimize the effect of sudden floods.

Development Fee - See “Impact Fee.”

Development Rights - The right to develop land by a landowner who maintains fee-simple ownership over the land or by a party other than the owner who has obtained the rights to develop. Such rights usually are expressed in terms of density allowed under existing zoning. For example, one development right may equal one unit of housing or may equal a specific number of square feet of gross floor area in one or more specified zone districts.

Dwelling Unit - One or more rooms with a single kitchen, designed for occupancy by one family for living and sleeping purposes.

Easement - The right to use property owned by another for specific purposes or to gain access to another property.

Emission Standard - The maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Endangered Species - A species of animal or plant whose prospects for survival and reproduction are in immediate jeopardy from one or more causes. Habitats for endangered species are protected under the Federal Endangered Species Act and the California Endangered Species Act.

Environmental Impact Report (EIR) - A report prepared in accordance with the California Environmental Quality Act that assesses all the environmental characteristics of an area and determines what effects or impacts will result if the area is altered or disturbed by a proposed action. (See “California Environmental Quality Act”)

Erosion - The loosening and transportation of rock and soil debris by wind, rain, or running water.

Exaction - A contribution or payment required as an authorized precondition for receiving a development permit; usually refers to mandatory dedication (or fee in lieu of dedication) requirements found in many subdivision regulations.

Expansive Soils - Soils which swell when they absorb water and shrink as they dry.

Fault - A fracture in the earth’s crust forming a boundary between rock masses that have shifted. An “active” fault is one that has had surface displacement within Holocene time (about the last 11,000 years). A “potentially active” fault is one that shows evidence of surface displacement during Quaternary time (the last 2 million years).

Finding(s) - The result(s) of an investigation and the basis upon which decisions are made. Findings are used by government agencies and bodies to justify action taken by the entity.

Fire-resistive - Able to withstand specified temperatures for a certain period of time, such as a one-hour fire wall; not fireproof.

Flood, 100-Year - The magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or 1%, chance of occurring in any given year.

Flood Insurance Rate Map (FIRM) - For each community, the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the premium risk zones applicable to that community.

Flood Plain - The relatively level land area on either side of the banks of a stream regularly subject to flooding. That part of the flood plain subject to a one percent chance of flooding in any given year is designated as an area of special flood hazard by the Federal Insurance Administration.

Floor Area Ratio (FAR) - The net floor area of a building or buildings on a lot divided by the lot area or site area.

Geological - Pertaining to rock or solid matter.

Groundwater - Water under the earth's surface, often confined to aquifers capable of supplying wells and springs.

Groundwater Recharge - The natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks which provide underground storage ("aquifers").

Guidelines - General statements of policy direction for which specific details may be later established.

Habitat - The physical location or type of environment in which an organism or biological population lives or occurs.

Habitat Conservation Plan (HCP) - A program prepared in accordance with the Federal Endangered Species Act that is designed to extend protection provided for endangered species to all sensitive habitat in a prescribed area.

Hazardous Material - Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. The term includes, but is not limited to, hazardous substances and hazardous wastes.

High Occupancy Vehicle (HOV) - Any vehicle other than a driver-only automobile (e.g., a vanpool, a bus, or two or more persons to a car).

Hillside - Land which is part of a hill between the summit and the foot with slopes of 10% or more.

Housing Element - One of the seven State-mandated elements of a local general plan, it assesses the existing and projected housing needs of all economic segments of the community, identifies potential sites adequate to provide the amount and kind of housing needed, and contains adopted goals, policies, and implementation programs for the preservation, improvement, and development of housing. Under State law, Housing Elements must be updated every five years.

Housing Unit The place of permanent or customary abode of a person or family. A housing unit may be a single-family dwelling, a multi-family dwelling, a condominium, a modular home, a mobile home, a cooperative, or any other residential unit considered real property under State law.

Impact - The effect of any man-made actions or indirect repercussions of man-made actions on existing physical, social, or economic conditions.

Impact Fee - A fee, also called a development fee, levied on the developer of a project by a city, county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce. California Government Code § 54990 specifies that development fees shall not exceed the estimated reasonable cost of providing the service for which the fee is charged. To lawfully impose a development fee, the public agency must verify its method of calculation and document proper restrictions on use of the fund.

Impervious Surface - Surface through which water cannot penetrate, such as roof, road, sidewalk, and paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.

Implementation - Actions, procedures, programs, or techniques that carry out policies.

Improvement - The addition of one or more structures or utilities on a vacant parcel of land.

Industrial - The manufacture, production, and processing of consumer goods. Industrial is often divided into “heavy industrial” uses, such as construction yards, quarrying, and factories and “light industrial” uses, such as research and development and less intensive warehousing and manufacturing.

Infill Development - Development of vacant land (usually individual lots or left-over properties) within areas which are already largely developed.

Infrastructure - Public services and facilities, such as sewage disposal systems, water-supply systems, other utility systems, and roads.

In Lieu Fee - (See “Dedication, in lieu of.”)

Landmark - A building, site, object, structure, or significant tree, having historical, architectural, social, or cultural significance and marked for preservation by the local, State, or federal government. A visually prominent or outstanding structure or natural feature that functions as a point of orientation or identification.

Landscaping - Planting, including trees, shrubs, and ground covers, suitably designed, selected, installed, and maintained permanently to enhance a site or roadway.

Landslide - A general term for a falling mass of soil or rocks.

Land Use - The occupation or utilization of land or water area for any human activity or any purpose defined in the Proposed General Plan Update.

Ldn - Day-Night Average Sound Level. The A-weighted average sound level for a given area (measured in decibels) during a 24-hour period with a 10 dB weighing applied to night-time sound levels. The Ldn is approximately numerically equal to the CNEL for most environmental settings.

Leq - The energy equivalent level, defined as the average sound level on the basis of sound energy (or sound pressure squared). The Leq is a “dosage” type measure and is the basis for the descriptions used in current standards, such as the 24-hour CNEL used by the State of California.

Level of Service (LOS) - A qualitative measure describing operational conditions within a traffic stream, as perceived by motorists. The conditions are generally described in terms of factors such as speed, delay, freedom to maneuver, comfort, convenience, and safety. Six levels of service are defined with letter designations from A to F, with A representing the optimal condition and F representing the worst.

Liquefaction - The transformation of loose, water-saturated, granular materials (such as sand or silt) from a solid into a liquid state. A type of ground failure that can occur during an earthquake.

Local Agency Formation Commission (LAFCO) - A commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and the merger of districts with cities. Each county’s LAFCO is empowered to approve, disapprove, or conditionally approve such proposals. LAFCO members generally include two county supervisors, two city council members, and one member representing the general public.

Local Street - A street which primarily serves as access to abutting properties characterized by traffic with low speeds, low volumes and relatively short trip lengths.

Mitigation - A specific action taken to reduce environmental impacts. Mitigation measures are required as a component of an environmental impact report (EIR) if significant measures are identified.

Mitigation Measures - Action taken to avoid, minimize, or eliminate environmental impacts. Mitigation includes: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance during the life of the action; and compensating for the impact by repairing or providing substitute resources or environments.

Mixed-use - Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site

in an integrated development project with significant functional interrelationships and a coherent physical design.

National Ambient Air Quality Standards - The prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area. **National Flood Insurance Program:** A federal program which authorizes the sale of federally subsidized flood insurance in communities where such flood insurance is not available privately.

National Historic Preservation Act - A 1966 federal law that established a National Register of Historic Places and the Advisory Council on Historic Preservation, and which authorized grants-in-aid for preserving historic properties.

National Register of Historic Places - The official list, established by the National Historic Preservation Act, of sites, districts, buildings, structures, and objects significant in the nation's history or whose artistic or architectural value is unique.

Natural Communities Conservation Plan (NCCP) - A plan that identifies sensitive habitats within a rural development area and directs the preparation of a program to mitigate the impacts of rural development on the habitats.

Nitrogen Oxide(s) (NO_x) - A reddish brown gas that is a byproduct of combustion and ozone formation processes. Often referred to as NO_x, this gas gives smog its "dirty air" appearance.

Noise - Any sound which is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying. Noise is simply "unwanted sound."

Noise Attenuation - Reduction of the level of a noise source using a substance, material, or surface, such as earth berms and/or solid concrete walls.

Noise Contour - A line connecting points of equal noise level as measured on the same scale. Noise levels greater than the 60 Ldn contour (measured in dBA) require noise attenuation in residential development.

Non-attainment - The condition of not achieving a desired or required level of performance and frequently used in reference to air quality.

Non-conforming Use - A use of a structure of land that was lawfully established and maintained, but which does not conform with the use regulations or required conditions for the district in which it is located by reason of adoption or amendment of local ordinance.

Open Space - Any parcel or area of land or water which is essentially unimproved and devoted to an open space use for the purposes of (1) the

preservation of natural resources, (2) the managed production of resources, (3) outdoor recreation, or (4) public health and safety.

Overlay --A land use designation on the Land Use Map or a zoning designation on a zoning map, which modifies the basic underlying designation in some specific manner.

Ozone (O₃) - A tri-atomic form of oxygen (O₃) created naturally in the upper atmosphere by a photochemical reaction with solar ultraviolet radiation. In the lower atmosphere, ozone is a recognized air pollutant that is not emitted directly into the environment, but is formed by complex chemical reactions between oxides of nitrogen and reactive organic compounds in the presence of sunlight, and becomes a major agent in the formation of smog.

Parcel - A lot, or contiguous group of lots, in single ownership or under single control, usually considered a unit for purposes of development.

Peak Hour/Peak Period - For any given roadway, a daily period during which traffic volume is highest, usually occurring in the morning and evening commute periods. Where “F” Levels of Service are encountered, the “peak hour” may stretch into a “peak period” of several hours duration.

Performance Standards - Zoning regulations that permit uses based on a particular set of standards of operation rather than on particular type of use. Performance standards provide specific criteria limiting noise, air pollution, emissions, odors, vibration, dust, dirt, heat, fire hazards, wastes, traffic impacts, and visual impact of a use.

Planning Area - The land area addressed by the Proposed General Plan Update, which is all the unincorporated land within the Monterey County limits.

Policy - A specific statement of principle or of guiding or implementing actions which implies clear commitment.

Pollutant - Any introduced gas, liquid, or solid that makes a resource unfit for its normal or usual purpose.

Pollution - The presence of matter or energy whose nature, location, or quantity produces undesired environmental effects.

Recreation, Active - A type of recreation or activity which requires the use of organized play areas including, but not limited to, softball, baseball, football, and soccer fields, tennis and basketball courts and various forms of children’s play equipment.

Recreation, Passive - Type of recreation or activity which does not require the use of organized play areas.

Redevelopment - New or replacement development undertaken to reduce or eliminate blighted conditions and to encourage private investment in designated “redevelopment project areas.” In California, public redevelopment is funded largely through the sale of bonds, with the retirement of the bonded debt paid for by the increases in real property taxes on project area lands resulting from improvements prompted by the combination of public and private reinvestment in the area. Redevelopment can be financed completely independently of a local agency’s General Fund operating revenues, but cities may allocate some operating revenues to assist redevelopment and/or target operating revenues to focus on redevelopment areas. Redevelopment may also be spurred by grants from Federal and State governments and sometimes private sources.

Residential - Land designated in the Proposed General Plan Update and Zoning Ordinance for buildings consisting of dwelling units. May be vacant or unimproved. (See “Dwelling Unit.”)

Residential, Multiple-Family - Usually three or more dwelling units on a single site, which may be in the same or separate buildings.

Residential, Single-Family - A single dwelling unit on a building site.

Richter Scale - A measure of the size or energy release of an earthquake at its source. The scale is logarithmic, meaning that the wave amplitude of each number on the scale is 10 times greater than that of the previous whole number.

Rideshare - A travel mode other than driving alone, such as buses, rail transit, carpools, and vanpools.

Ridge - An elongated crest or series of crests of a hill.

Ridgeline - A ground line located at the highest elevation of and running parallel to the long axis of the ridge.

Right-of-way - The strip of land over which certain transportation and public use facilities are built, such as roadways, railroads, and utility lines.

Riparian Lands - Lands which are comprised of the vegetative and wildlife areas adjacent to perennial and intermittent streams. Riparian areas are delineated by the existence of plant species normally found near fresh water.

Riparian Vegetation - Vegetation associated with any watercourse which requires or tolerates moisture in excess of that available in adjacent uplands.

Runoff - That portion of rain or snow which does not percolate into the ground and is discharged into streams instead.

Rural Center - An existing rural or semi-rural area identified by the proposed General Plan Update that can support additional residential and neighborhood

commercial development. The proposed General Plan Update establishes land use policies designed to allow rural centers to develop over the life of the plan, but in a manner that preserves the existing character of these areas.

Sanitary Sewer - A system of subterranean conduits which carries refuse liquids or waste matter to a plant where the sewage is treated, as contrasted with storm drainage systems (which carry surface water) and septic tanks or leech fields (which hold refuse liquids and waste matter on-site). (See “Combined Sewer” and “Septic System”.)

Scenic Highway Corridor - The visible area outside of a highway’s right-of-way, generally described as “the view from the road.”

Scenic Highway/Scenic Route - A highway, road, or street which, in addition to its transportation function, provides opportunities for the enjoyment of natural and man-made scenic resources and access or direct views to areas or scenes of exceptional beauty or historic or cultural interest. The aesthetic values of scenic routes often are protected and enhanced by regulations governing the development of property or the placement of outdoor advertising.

Seismic - Caused by or subject to earthquakes or earth vibrations.

Septic System - A sewage-treatment system that includes a settling tank through which liquid sewage flows and in which solid sewage settles and is decomposed by bacteria in the absence of oxygen. Septic systems are often used for individual-home waste disposal where an urban sewer system is not available. (See “Sanitary Sewer.”)

Setback Line - A line within a lot parallel to a corresponding lot line, which is the boundary of any specified front, side, corner side or rear yard, or the boundary of any public right-of-way whether acquired in fee, easement or otherwise, or a line otherwise established to govern the location of buildings, structures or uses. Where no minimum front, side, corner side, or rear yards are specified, the setback line shall be coterminous with the corresponding lot line. The line is a horizontal distance measured from the respective property line.

Settlement - The drop in elevation of a ground surface caused by settling or compacting. Differential settlement is uneven settlement.

Significant Effect - A beneficial or detrimental impact on the environment. May include, but is not limited to, significant changes in an area’s air, water, and land resources.

Siltation - (1) The accumulating deposition of eroded material, or (2) the gradual filling in of streams and other bodies of water with sand, silt, and clay.

Single-family Dwelling, Attached - A building containing two dwelling units with each unit having its own foundation on grade.

Single-family Dwelling, Detached - A building containing one dwelling unit on one lot.

Slope - Land gradient described as the vertical rise divided by the horizontal run, and expressed in percent.

Soil - The unconsolidated material on the immediate surface of the earth created by natural forces that serves as the natural medium for growing land plants.

Solid Waste - Any unwanted or discarded material that is not a liquid or gas. Includes organic wastes, paper products, metals, glass, plastics, cloth, brick, rock, soil, leather, rubber, yard wastes, and wood. Organic wastes and paper products comprise about 75 percent of typical urban solid waste.

Special Treatment Area - A specific location identified in an area plan for focused development because of its unique location, site constraints, or surrounding land uses. The area plan policy establishes detailed policies to guide future land use activities at that location.

Specific Plan - A plan that provides detailed design and implementation tools for a specific portion of the area covered by a general plan. A specific plan may include all regulations, conditions, programs, or proposed legislation which may be necessary or convenient for the systematic implementation of any general plan element(s).

Storm Water Runoff - Surplus surface water generated by rainfall that does not seep into the earth but flows overland to flowing or stagnant bodies of water. Also referred to as "urban runoff."

Structure - Anything constructed or erected which requires a location on the ground, including a building or a swimming pool, but not including a fence or a wall used as a fence, if the height does not exceed six feet, or access drives or walks.

Subdivision - The division of a tract of land into defined lots, either improved or unimproved, which can be separately conveyed by sale or lease, and which can be altered or developed. Subdivision includes a condominium project as defined in Section 1350 of the California Civil Code.

Subsidence - The gradual sinking of land as a result of natural or artificial causes. (See "Settlement.")

Sulfur Dioxide (SO₂) - A heavy, pungent, colorless air pollutant formed primarily by the combustion of fossil fuels. It is a respiratory irritant, especially for asthmatics and is the major precursor to the formation of acid rain.

Transit - The conveyance of persons or goods from one place to another by means of a local, public transportation system. (See "Transit, Public.")

Transit, Public - A system of regularly-scheduled buses and/or trains available to the public on a fee-per-ride basis. Also called “Mass Transit.”

Transportation Demand Management (TDM) - A strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle. TDM attempts to: (1) reduce the number of persons per vehicle; (2) reduce the number of persons who drive alone on the roadway during the commute period; and (3) increase the use of carpools, vanpools, buses and trains, and walking and biking. TDM can be an element of TSM (see below).

Trip Generation - The dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use of a transportation system and the impact of additional development or transportation facilities on an existing, local transportation system. Trip generations of households are correlated with destinations that attract household members for specific purposes.

Uniform Building Code - A national, standard building code which sets forth minimum standards for construction.

United States Army Corps of Engineers - A federal agency responsible for the design and implementation of publicly supported engineering projects. Any construction activity that involves filling a watercourse, pond, lake (natural or man-made), or wetlands (including seasonal wetlands and vernal pools), may require an ACOE permit.

Use - The purpose for which a lot or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered, and/or enlarged as per the County’s Zoning Ordinance and Proposed General Plan Update land use designation.

Use Permit - The discretionary and conditional review of an activity or function or operation on a site or in a building or facility.

Variance - A departure from any provision of the zoning requirements for a specific parcel, except use, without changing the Zoning Ordinance or the underlying zoning of the parcel. A variance usually is granted only upon demonstration of hardship based on the peculiarity of the property in relation to other properties in the same zoning district.

View Corridor - The line of sight (identified as to height, width, and distance) of an observer looking toward an object that is significant to the community (e.g., ridgeline, river, historic building, etc.); the route that directs the viewer’s attention.

Viewshed - The area within view from a defined observation point.

Volume-to-Capacity Ratio - A measure of the operating capacity of a roadway or intersection, in terms of the number of vehicles that theoretically could pass through when the roadway or intersection is operating at its designed capacity. Abbreviated as v/c. At a v/c ratio of 1.0, the roadway or intersection is operating at capacity. If the ratio is less than 1.0, the traffic facility has additional capacity. Although ratios slightly greater than 1.0 are possible, it is more likely that the peak hour will elongate into a “peak period.” (See “Peak Hour” and “Level of Service.”)

Watercourse - Natural or once natural flowing (perennially or intermittently) water including rivers, streams, and creeks. Includes natural waterways that have been canalized, but does not include manmade channels, ditches, and underground drainage and sewer systems.

Watershed - The total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or watercourse which drains into a lake, reservoir, bay or ocean.

Wetlands - Either transitional areas between terrestrial and aquatic systems where the water table is usually at or near the surface, or land that is covered by shallow water.

Williamson Act - Officially titled the California Land Conservation Act of 1965, the Williamson Act was designed as an incentive to retain prime agricultural land and open space in agricultural use, thereby slowing its conversion to urban uses. The program entails a ten-year contract between an owner of land and (usually) a county whereby the land is taxed on the basis of its agricultural use rather than the market value. The land becomes subject to certain enforceable restrictions, and certain conditions need to be met prior to approval of an agreement.

Zoning - The division of a jurisdiction by legislative regulations into areas, or zones, which specify allowable uses for real property and size restrictions for buildings within these areas; a program that implements policies of the proposed General Plan Update.

Zoning District - A designated section of the jurisdiction for which prescribed land use requirements and building and development standards are uniform.

Documents, Plans, and Reports Cited (updated 12/05/08)

The following documents listed below can be accessed in one or more of the following ways (the specific availability of each document is noted in the citations below):

- a. In hard copy at the Front Counter of the Monterey County Planning Department, Salinas Permit Center, 168 W. Alisal St. 2nd Floor Salinas, CA 93901, (831) 755-5025;
- b. On CDROM at the Front Counter.
- c. At the California State University – Monterey Bay Library (1 document only).
- d. On the Internet at the specified internet address noted for the citation below.

The Salinas Permit Center is open Monday through Friday, from 7:30 a.m. to 5:00 p.m.

For questions regarding these citations, or for assistance, please contact Carl Holm,

Deputy Director, RMA-Planning at holmcp@co.monterey.ca.us or 831-755-5103.

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3. America's Byways. 2008a. National Scenic Byways Online. 2008a. *Route 1- Big Sur Coast Highway*. Last revised: 2007. Hard copy available at the front counter or on the web: <http://www.byways.org/explore/byways/2301/>
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County Department of Finance 2007d	3	9	California Department of Finance 2007b
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California Department of Finance 2007d	3	10	California Department of Finance 2007b
County of Monterey, East Garrison Specific Plan, adopted October 4, 2005	3	34	Monterey County 2005a.
Monterey County Planning and Building Inspection Department, Agricultural Winery Corridor Plan, March 6,	3	40	Delete reference to March 6, 2007. Reference is Monterey County 2007a
Monterey County 2007	4.01	2	Monterey County 2007a
Monterey County 2007	4.01	2	Monterey County 2007a
Monterey County 2007	4.01	2	Monterey County 2007a
Monterey County 2007	4.01	24	Monterey County 2007a
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California Department of Water Resources 2004d	4.03	8	California Department of Water Resources 2004.
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California Department of Water Resources 2004f	4.03	10	California Department of Water Resources 2004.
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California Department of Water Resources 2004g	4.03	14	California Department of Water Resources 2004.
Monterey County et al. 1983.	4.03	17	Monterey County et al 1983b
California Coastal Conservancy 2006	4.03	18	Delete reference as non-material to textual discussion.
Monterey County Water Resources Agency 2001	4.03	24	Monterey County Water Resources Agency 2001a
Monterey County Water Resources Agency 2001	4.03	24	Monterey County Water Resources Agency 2001a
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Monterey County Water Resources Agency 2001	4.03	38	Monterey County Water Resources Agency 2001a
California Public Utilities Commission 2008a	4.03	40	California Public Utilities Commission. 2008.
Page 4.3-43	4.03	43	Change reference in last paragraph from Final EIR to Draft EIR.
AMBAG 2008	4.03	114	AMBAG. 2008a.
New reference	4.03	117	Add new reference to end of first sentence. Cypress Environmental and Land Use Planning and Inland Engineers, Inc. 2006.
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Monterey County Water Resources Agency 2001	4.03	154	Monterey County Water Resources Agency 2001a
Monterey County Water Resources Agency 2001	4.03	155	Monterey County Water Resources Agency 2001a
Table 4.4-2	4.04	7	Add reference to USGS 1989.
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CVMP Traffic Study, July 2007	4.06	9	Monterey County. 2007b.
Kimley-Horn & Associates, Inc. 2008	4.06	10	Kimley-Horn & Associates, Inc. 2008a.
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Kimley-Horn and Associates, Inc.	4.06	26	Not a reference – this is the only location of this data.
Kimley-Horn and Associates, Inc.	4.06	35	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	38	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	39	Kimley-Horn & Associates, Inc. 2008a.
MST, 2006	4.06	56	Monterey-Salinas Transit 2006a
Peninsula Area Service Study, 2006	4.06	56	Monterey-Salinas Transit 2006b
Kimley-Horn and Associates, Inc. 2008a	4.06	61	Kimley-Horn & Associates, Inc. 2008a.
CVMP Traffic Study, July 2007	4.06	61	CVMP Traffic Study, July 2007 as found in Monterey County 2007b
Kimley-Horn & Associates, Inc.	4.06	63	Kimley-Horn & Associates, Inc. 2008a.
DKS Associates, 2007	4.06	63	DKS Associates, 2007 as found in S/B Monterey County 2007b
Kimley-Horn and Associates, Inc.	4.06	66	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	67	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn	4.06	73	Kimley-Horn & Associates, Inc. 2008a.
MST, 2006	4.06	77	Monterey-Salinas Transit. 2006a.

Monterey County 2007 Draft General Plan

Draft EIR

Updates to citations in text and errata related to citations (December 2007)

Current Reference	Section	Page	Errata or Revised Reference
Peninsula Area Service Study, 2006	4.06	77	Monterey-Salinas Transit. 2006b.
Kimley-Horn and Associates, Inc.	4.06	83	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	86	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	87	Kimley-Horn & Associates, Inc. 2008a.
MST, 2006	4.06	92	Monterey-Salinas Transit. 2006a.
Kimley-Horn and Associates, Inc.	4.06	97	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	100	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	101	Kimley-Horn and Associates, Inc. 2008a
Kimley-Horn and Associates, Inc.	4.06	112	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	115	Kimley-Horn & Associates, Inc. 2008a.
Kimley-Horn and Associates, Inc.	4.06	119	Kimley-Horn & Associates, Inc. 2008a.
MBUAPCD 2008	4.07	3	MBUAPCD 2008a
MBUAPCD 2008	4.07	3	MBUAPCD 2008a
Kimley-Horn	4.07	15	Kimley-Horn and Associates. 2008b.
MBUAPCD 2008	4.07	27	MBUAPCD 2008a
MBUAPCD 2008	4.07	28	MBUAPCD 2008a
MBUAPCD 2008	4.07	28	MBUAPCD 2008a
San Joaquin Valley Air Pollution Control District. 2006	4.07	29	San Joaquin Valley Air Pollution Control District. 2008
County of Monterey 2006	4.08	7	Monterey County. 2006b.
County of Monterey 2006	4.08	8	Monterey County. 2006a.
County of Monterey 2006	4.08	9	Monterey County. 2006a.
County of Monterey 2006	4.08	9	Monterey County. 2006a.
County of Monterey 1982	4.08	10	Monterey County. 1982a.
CNDDDB (2007)	4.09	3	California Natural Diversity Database (CNDDDB). 2007/2008.
Based on California Department of Fish and Game, California Natural Diversity Database (CNDDDB) (Version 3.1.0, accessed on January 22, 2008)	4.09	8	California Natural Diversity Database (CNDDDB). 2007/2008.
NatureServe's standard heritage program	4.09	8	NatureServe. 2008.
CNDDDB (2007)	4.09	17	California Natural Diversity Database (CNDDDB). 2007/2008.
DFG California Interagency Wildlife Task Group 2005	4.09	20	California Department of Fish and Game, California Interagency Wildlife Task Group. 2005.

Monterey County 2007 Draft General Plan

Draft EIR

Updates to citations in text and errata related to citations (December 2007)

Current Reference	Section	Page	Errata or Revised Reference
DFG California Interagency Wildlife Task Group 2005	4.09	21	California Department of Fish and Game, California Interagency Wildlife Task Group. 2005.
CNPS Inventory of Rare and Endangered Plants of California online edition 2008	4.09	23	California Native Plant Society. 2008.
California Department of Conservation 1982 to 2006	4.09	45	California Department of Conservation 1984 to 2006a
Environmental Laboratory 1987	4.09	49	U.S. Army Corps of Engineers Environmental Laboratory. 1987.
PMC 2006	4.09	58	Monterey County Resource Management Agency, Housing and Redevelopment Office 2006.
AMBAG 2008	4.09	63	AMBAG 2008a
Monterey County Vintner's Association 2008	4.09	63	Monterey County Vintner's Association 2008b
MRWPCA 2006.	4.11	5	Monterey Regional Water Pollution Control Agency (MRWPCA). 2006.
USFS 2008b	4.12	2	USFS 2008a
USFS 2008c	4.12	3	USFS 2008b
California Department of Finance 2006b	4.12	5	California Department of Parks and Recreation. 2006.
Monterey County 2007	4.12	14	Monterey County 2007 a
Monterey County 2007	4.12	14	Monterey County 2007 a
Federal Aviation Administration 2008b	4.13	2	Federal Aviation Administration 2008
Federal Aviation Administration 2008c	4.13	3	Federal Aviation Administration 2008
Federal Aviation Administration 2008d)	4.13	3	Federal Aviation Administration 2008
County of Monterey General Plan. Safety Element. 2007	4.13	7	Monterey County 2007a
California Department of Transportation 2008 b 2008c	4.14	9	California Department of Transportation 2008b
Monterey County General Plan 2007 Area Plans	4.14	9	Monterey County 2007a
California Department of Finance 2007	4.15	2	California Department of Finance 2007c
California Department of Finance 2005	4.15	3	California Department of Finance 2007a
County of Monterey 2008	4.15	6	Monterey County 2008.
County of Monterey 2008	4.15	7	Monterey County 2008.
Association of Monterey Bay Area Governments 2008	4.15	8	Association of Monterey Bay Area Governments 2008a
Association of Monterey Bay Area Governments 2008	4.15	9	Association of Monterey Bay Area Governments 2008a
County of Monterey 2004	4.15	15	Monterey County 2004.
Association of Monterey Bay Area Governments 2008b	4.15	16	Association of Monterey Bay Area Governments 2008c
County of Monterey 2008	4.15	19	Monterey County 2008.
Intergovernmental Panel on Climate Change 2007	4.16	2	Intergovernmental Panel on Climate Change. 2007a.

Monterey County 2007 Draft General Plan

Draft EIR

Updates to citations in text and errata related to citations (December 2007)

Current Reference	Section	Page	Errata or Revised Reference
Intergovernmental Panel on Climate Change 2007	4.16	2	Intergovernmental Panel on Climate Change. 2007a.
CARB 2007	4.16	4	CARB. 2007c.
CCAR 2008	4.16	5	California Climate Action Registry, 2008
CARB 2008a	4.16	7	CARB. 2008b.
California Air Resources Board 2008b	4.16	11	CARB 2008a
AMBAG 2008	4.16	22	AMBAG 2008a
Fried et al. 2006	4.16	41	California Climate Change Center 2006
Bay Area Economics 2007	5	3	Bay Area Economics. 2006.
Bay Area Economics 2007	5	4	Bay Area Economics. 2006.
Bay Area Economics 2007	5	5	Bay Area Economics. 2006.
Bay Area Economics 2007	5	5	Bay Area Economics. 2006.
Bay Area Economics. 2007.	5	7	Bay Area Economics. 2006.
Bay Area Economics. 2007.	5	8	Bay Area Economics. 2006.
Bay Area Economics. 2007.	5	27	Bay Area Economics. 2006.
Bay Area Economics. 2007.	5	28	Bay Area Economics. 2006.
Bay Area Economics. 2007	5	40	Bay Area Economics. 2006.
Forney pers. comm.	B	B-1/4	Bruso,Pers. Comm. 2008.
EPA 2006b	B	B-2	Environmental Protection Agency. 2006
AMBAG 2008	B	B-5	AMBAG 2008a
URBEMIS 2007	B	B-5	URBEMIS 2007 (Rimpo and Associates. 2005 – 2008)

Appendix A
Notice of Preparation

Form A

Notice of Completion and Environmental Document Transmittal

SCH #

For U.S. Mail: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

Project Title: General Plan 2007

Lead Agency: Monterey County Contact Person: Carl Holm
Street Address: 168 W. Alisal Street, 2nd Floor Telephone:
City: Salinas Zip Code: 93901 County: Monterey

Project Location:

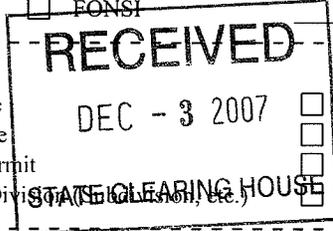
County: Monterey City/Nearest Community: all
Cross Streets: n/a Zip Code:
Assessor's Parcel No. Section: Twp. Range: Base:
Within 2 Miles: State Hwy #: Waterways:
Airports: Railways: Schools:

Document Type:

CEQA: [X] NOP [] Draft EIR NEPA: [] NOI Other: [] Joint Document
[] Early Cons [] Supplement to EIR [] EA [] Final Document
[] Neg Dec [] Subsequent EIR [] Draft EIS [] Other:
[] Mit Neg Dec [] Other:

Local Action Type:

[X] General Plan Update [] Specific Plan [] Rezone [] Annexation
[] General Plan Amendment [] Master Plan [] Prezone [] Redevelopment
[] General Plan Element [] Planned Unit Development [] Use Permit [] Coastal Permit
[] Community Plan [] Site Plan [] Land Div (Subdivision, etc.) [] Other:



Development Type:

[] Residential: Units Acres Water Facilities: Type MGD
[] Office: Sq.ft. Acres Employees Transportation: Type
[] Commercial: Sq.ft. Acres Employees Mining: Mineral
[] Industrial: Sq.ft. Acres Employees Power: Type MW
[] Educational: Waste Treatment: Type MGD
[] Recreational: Hazardous Waste: Type
Total Acres (approximate): Other:

Project Issues That May Have a Significant or Potentially Significant Impact:

[] Aesthetic/Visual [] Fiscal [] Recreation/Parks [] Vegetation
[X] Agricultural Land [] Flood Plain/Flooding [] Schools/Universities [X] Water Quality
[X] Air Quality [] Forest Land/Fire Hazard [] Septic Systems [X] Water Supply/Groundwater
[] Archeological/Historical [X] Geologic/Seismic [] Sewer Capacity [X] Wetland/Riparian
[X] Biological Resources [] Minerals [] Soil Erosion/Compaction/Grading [X] Growth Inducement
[] Coastal Zone [X] Noise [] Solid Waste [X] Land Use
[] Drainage/Absorption [X] Population/Housing Balance [] Toxic/Hazardous [X] Cumulative Effects
[] Economic/Jobs [X] Public Services/Facilities [X] Traffic/Circulation [] Other:

Present Land Use/Zoning/General Plan Designation:

This is an update to the 1982 General Plan effective county-wide. Various zoning and land use designations.

Project Description: (please use a separate page if necessary)

Update of the County General Plan. See the attached Notice of Preparation

NOTE: Clearinghouse will assign identification numbers for all new projects. If an SCH number already exists for a project (e.g., Notice of Preparation or previous draft document), please fill in.

Form A, continued
Notice of Completion and Environmental Document Transmittal

Key S = Document sent by lead agency X = Document sent by SCH D = Suggested distribution

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below.

- | | |
|---|---|
| <input checked="" type="checkbox"/> Air Resources Board | <input type="checkbox"/> Office of Emergency Services |
| <input type="checkbox"/> Boating and Waterways, Department of | <input type="checkbox"/> Office of Historic Preservation |
| <input checked="" type="checkbox"/> California Highway Patrol | <input checked="" type="checkbox"/> Parks and Recreation |
| <input checked="" type="checkbox"/> Caltrans District # <u>5</u> | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input checked="" type="checkbox"/> Caltrans Division of Aeronautics | <input type="checkbox"/> Public Utilities Commission |
| <input checked="" type="checkbox"/> Caltrans Planning | <input type="checkbox"/> Reclamation Board |
| <input type="checkbox"/> Coachella Valley Mountains Conservancy | <input checked="" type="checkbox"/> Regional WQCB # <u>3</u> |
| <input checked="" type="checkbox"/> Coastal Commission | <input checked="" type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Colorado River Board Commission | <input type="checkbox"/> S.F. Bay Conservation and Development Commission |
| <input checked="" type="checkbox"/> Conservation, Department of | <input type="checkbox"/> San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> San Joaquin River Conservancy |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> Santa Monica Mountains Conservancy |
| <input type="checkbox"/> Education, Department of | <input checked="" type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Office of Public School Construction | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Quality |
| <input checked="" type="checkbox"/> Fish and Game Region # <u>4</u> | <input type="checkbox"/> SWRCB: Water Rights |
| <input type="checkbox"/> Food and Agriculture, Department of | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input checked="" type="checkbox"/> Forestry and Fire Protection | <input type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> General Services, Department of | <input type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> Health Services, Department of | Other: _____ |
| <input checked="" type="checkbox"/> Housing and Community Development | Other: _____ |
| <input type="checkbox"/> Integrated Waste Management Board | Other: _____ |
| <input checked="" type="checkbox"/> Native American Heritage Commission | Other: _____ |

Local Public Review Period (to be filled in by lead agency):

Starting Date: _____ Ending Date: January 5, 2007

Lead Agency (complete if applicable): Consulting Firm: <u>Jones & Stokes</u> Address: <u>2600 V Street</u> City/State/Zip: <u>Sacramento, CA 95818</u> Contact: <u>Antero Rivasplata</u> Telephone: <u>(916) 737-3000</u>

Applicant: Name: <u>County of Monterey</u> Address: <u>see above</u> City/State/Zip: _____ Telephone: _____
--

Signature of Lead Agency Representative _____ **Date:** _____

Authority cited: Sections 21083 and 21087, Public Resources Code. Reference: Section 21161, Public Resources Code.

Notice of Preparation

I. Overview of Environmental Review Process

The County of Monterey (County), as the Lead Agency under the California Environmental Quality Act (CEQA), has determined that it will prepare a Subsequent Environmental Impact Report (SEIR) for the Monterey County General Plan Update project described below. The County will prepare the SEIR in accordance with the State CEQA, implementing guidelines (“Guidelines”), and County procedures. Note that the County circulated a Notice of Preparation in February 2006 for the 2006 General Plan (“GP 2006” also known as “GPU4”).

The purpose of this notice is to advise and solicit comments and suggestions specific to the project description amendments herein regarding the preparation of the SEIR, environmental issues to be addressed in the SEIR, and any related issues, from interested parties other than potential Responsible Agencies, including interested or affected members of the public. The County requests that any Responsible or Trustee Agency responding to this notice respond in a manner consistent with CEQA Guidelines Section 15082(b). We request that your agency review and submit written comments on the scope and content of the environmental information provided in the Notice of Preparation, as relevant to your agency’s statutory responsibilities in connection with the proposed project.

Monterey County commenced a comprehensive General Plan update process in 1999. During this process, four draft versions of the General Plan were prepared. On January 3, 2007, the Monterey County Board of Supervisors certified an EIR on the 2006 General Plan and adopted GP 2006, subject to voter repeal at the June 2007 election. The results of the June 2007 election show that the majority of voters did not want to repeal the Board-approved 2006 General Plan but also did not want to adopt the 2006 General Plan or the Community General Plan initiative, an initiative measure. In the aftermath of the uncertainty resulting from the election on competing ballot measures, the Board of Supervisors determined to undertake further study and consideration of potential amendments to GP 2006. Based on recommendations of the Planning Commission and as a result of several public hearings before the Board of Supervisors, the Board of Supervisors has given direction for changes to GP 2006, resulting in a fifth version of the General Plan update (“GP 2007” also known as “GPU5”). This environmental review pertains to GP 2007.

In accordance with CEQA and County procedures, your agency is requested to provide a written response to this amended NOP by **January 5, 2008**. The County will incorporate relevant issues and information into the Draft SEIR as identified in the NOP and NOP responses throughout the SEIR process. Please name a contact person in your response and send your response to the following:

County of Monterey
Planning & Building Inspection Department
168 W. Alisal Street, 2nd Floor
Salinas, California 93901
Attn: Carl Holm, Acting Planning Manager

Scoping Meeting

A public scoping meeting will be held at **6 p.m. the 12th day of December, 2007** at the following location:

County of Monterey
Monterey Conference Room, 2nd Floor
168 W. Alisal Street
Salinas, California 93901

At this meeting, agencies, organizations, and members of the public will be able to provide comments on the scope of the environmental review process for the proposed Monterey County General Plan Update.

II. Project Location

The project area is Monterey County, located on the central coast of California and bordered by the Pacific Ocean (west); Santa Cruz County (north); San Benito, Fresno, and Kings Counties (east); and San Luis Obispo County (south); refer to Figure 1. The County's northern and southern boundaries are approximately 75 miles south of San Francisco and 200 miles north of Los Angeles, respectively. The County is approximately 3,771 square miles in size and is the 18th largest county in the state in terms of total area. The General Plan governs land use in the unincorporated inland areas of the County. The General Plan Update will not amend the Local Coastal Program governing that portion of Monterey County in the coastal zone.

III. Project Description

The General Plan serves as the blueprint for growth in unincorporated inland areas of Monterey County by designating land for various urban and non-urban uses including agricultural, commercial, industrial, residential, and public/quasi-public. GP 2007 carries over most of the policies and land use designations that composed GP 2006, with a number of key revisions. The following describes GP 2007, with items that represent a change from GP 2006 marked with an asterisk or listed under "Other GP 2007 Provisions."

Area Plans (Inland)

The proposed General Plan consists of eight inland area plans. Area Plans include more focused policies that address specific regional or local issues identified in those geographic areas. These planning areas are listed below and are depicted on Figure 2:

- North County Area Plan
- Greater Salinas Area Plan
- Central Salinas Valley Area Plan
- Greater Monterey Peninsula Area Plan
- Carmel Valley Master Plan (CVMP)
- Toro Area Plan
- Cachagua Area Plan
- South County Area Plan

Each area plan contains supplemental policies to guide future development within each planning area. No changes are proposed as part of this update to the coastal land use plans (described below).

Special Treatment Areas (STAs)

Special Treatment Areas are land use designations in the General Plan pertaining to an individual lot or a group of lots where unique conditions warrant special studies and policies for development. No change is proposed to the language defining STAs. A number of changes relating to specific locations involving STAs are described below.

Community Areas

As part of the proposed General Plan Update process, areas within the unincorporated County that can accommodate future growth have been identified. These areas, designated as “Community Areas,” are listed below:

- Pajaro
- Boronda
- Castroville
- Fort Ord Master Plan
- Chualar

* The Rancho San Juan Community Area identified in GP 2006 will not be designated a Community Area in GP 2007. It will be designated as a Special Treatment Area in the Greater Salinas Area Plan that limits development to what was proposed for the Revised Rancho San Juan Specific Plan (Butterfly Village tentative map). The San Lucas Community Area identified in GP 2006 is proposed to be designated a Rural Center in GP 2007.

The proposed General Plan and Area Plan goals and policies are designed to accommodate growth in Community Areas while ensuring that new development provides adequate public facilities and services to future residents while limiting the impact to the environment. GP 2007 will incorporate the Community Plan that has been adopted for Castroville and the Specific Plan that has been adopted for East Garrison I. Following adoption of GP 2007, Community Plans will be prepared for each of the other Community Areas, in a manner compliant with the California Environmental Quality Act.

Rural Centers

Rural Centers are existing areas containing concentrated development that includes higher intensity uses than typically found in rural areas. These areas , with the potential for improved infrastructure, could develop more intensively , but would retain their village character. They are listed below.

- River Road
- Lockwood
- Pleyto
- Bradley
- San Ardo
- San Lucas
- Pine Canyon (King City)

* The Prunedale, Mouth of the Carmel Valley, San Benancio/Corral de Tierra, and Toro Park Estates/Serra Village Rural Centers identified in GP 2006 have been deleted from GP 2007. The River Road Rural Center has been retained, but significantly reduced in size.

The proposed General Plan and Area Plan goals and policies are designed to maintain existing land use patterns in Rural Centers while ensuring that adequate public facilities and services are available to serve residents while limiting the impact to the environment.

Carmel Valley Master Plan Policies

GP 2007 would revise several of the policies set out in GP 2006.

New residential subdivision in Carmel Valley would be limited to creation of 266 new lots, with preference to projects including at least 50% affordable units. More intensive development would require prior approval of a general plan amendment. This policy is a refinement of the more complicated tracking system in the current Master Plan. The allowable additional residential growth is comparable.

A prohibition regarding conversion for agricultural purposes of previously uncultivated lands on slopes in excess of 25% that has been added to the Carmel Valley Master Plan in

the 2007 General Plan. This is an *existing* policy of the Carmel Valley Master Plan that was not included in the 2006 General Plan.

* The Mouth of the Carmel Valley Special Treatment Area identified in GP 2006 has been deleted from GP 2007, however, a smaller Rancho Canada Village Special Treatment Area has been substituted within the same geographic area. It would consist of approximately 40 acres, excluding any areas within the floodplain, with an allowable density of up to 10 units per acre and a minimum of 50% Affordable/Workforce housing. Prior to beginning new residential development (except for the first unit on an existing lot of record), projects must address environmental constraints.

The Delfino/Airport Site Study Area has also been deleted. There is an Affordable Housing Overlay designation in Mid-Valley (see Affordable Housing Overlay provisions below.)

Greater Salinas Area Plan Supplemental Policies

GP 2007 would revise several of the supplemental policies set out in GP 2006.

The Highway 68/Foster Road Special Treatment Area is proposed to be limited such that the developed area will not exceed 5% of the total parcel, with the remainder retained in crop production.

GP 2007 retains a slightly expanded Espinosa Road Study Area. This Study Area is will assess whether existing businesses are compatible with the surrounding uses and how best to zone the area in the future.

* The Russell Road Study Area identified in GP 2006 has been deleted from GP 2007. This is the area immediately adjacent to Rancho San Juan Special Treatment Area. This area will be re-designated consistent with the agricultural designations in the 1982 General Plan prior to the adoption of the Greater Salinas Area Plan (Farmland and Grazing). GP 2007 designates the Revised Rancho San Juan Specific Plan as a Special Treatment Area.

Agricultural Winery Corridor Plan

An Agricultural Winery Corridor Plan (ACWP) is proposed as part of the General Plan Update (as was the case with GP 2006). This plan is designed to facilitate the establishment of up to 40 new artisan and 10 new full-scale wineries along three corridors in the central and southern Salinas Valley. The corridors are:

- Central/Arroyo Seco/River Road
- Metz Road
- Jolon Road

The proposed Winery Corridor Plan will be treated as an Area Plan with specific policies that govern development of wine-related facilities in the identified corridor.

Other GP 2007 Provisions (changes or additions to GP 2006)

Other key provisions of GP 2007 that differ from GP 2006 include the following:

Affordable Housing Overlay – establish new policies creating Affordable Housing Overlay (AHO) Districts in the following areas:

- Mid-Carmel Valley (approx. 13 acres)
- Highway 68/Monterey Peninsula Airport (approx. 85 acres)
- Reservation Road/Highway 68 (approx. 31 acres)
- Community Areas prior to adoption of a Community Plan
- Rural Centers prior to adoption of an Infrastructure and Financing Study

Property owner participation in an AHO District would be voluntary. Minimum density for an AHO project would be 6 units per acre, up to a maximum of 30 units per acre, with an average density of at least 10 units per acre. New incentives for participation in an AHO would also be established including, but not limited to density bonuses and streamlined permitting. An AHO project would generally be required to provide affordable units as follows: 10% very low; 15% low; 15% moderate; 20% workforce I; and 40% workforce II housing.

Development Evaluation System – revise the GP 2006 “Residential Development Evaluation System” to a pass-fail “Development Evaluation System” for residential and commercial projects of five or more units. The revised system requires that, for new residential development outside of Community Areas and Rural Centers or in Rural Centers prior to the preparation of an Infrastructure and Financing Study, 35% of new units must be affordable/workforce housing, except that projects that include at least 15% farmworker inclusionary housing would be required to provide 30% of new units as affordable/workforce housing.

Transfer Development Rights Policy –include criteria to be used to evaluate potential receiver sites, with priority given to Community Areas and Rural Centers. Evaluation criteria would include site suitability, infrastructure, and avoidance of impacts to productive farmland, among others. This is a revision to the GP 2006 policy.

Mitigation of Agricultural Land Conversion –provide that the future agricultural land mitigation program will include a graduated value for important farmland, with the loss of prime farmland having the highest agricultural value. This is a revision of the GP 2006 policy.

Slope Development Policy – establish new policies limiting development on steep slopes and requiring the establishment of permit processes as follows:

- Prohibit development on slopes greater than 30%, with limited exceptions.
- Establish an Agricultural Permit process for the conversion, for agricultural purposes, of previously uncultivated lands on slopes greater than 25%.
- Establish a ministerial permit process and describe the basic resource criteria to be addressed in that permit process for conversions to agricultural land that are subject to a State Agricultural Waiver Program, Agricultural Registration Program or similar program regulating irrigation on steep slopes, or when only a small portion of the affected area includes slopes greater than 25%.

Long-Term Water Supply –add consideration of design, financing, and environmental review when examining the status and surety of planned new water supply projects. This is a revision of the GP 2006 policy.

On-Site Wastewater Management Plan – establish a new policy to create On-Site Wastewater Management Plans for areas with high concentrations of development that are served primarily by individual sewage systems such as North County and Carmel Valley. Wastewater treatment and disposal for Community Areas and Rural Centers will be through consolidation of services. No connections to package plants would be allowed when connection to a regional facility is feasible.

Infrastructure Funding – revise the GP 2006 policy to require a Capital Improvement and Financing Plan to be adopted within 18 months of adoption of GP 2007. A requirement for regular cost adjustments is also proposed.

Greenhouse Gas Reduction Plan – establish a new policy requiring adoption of a Greenhouse Gas Reduction Plan within 24 months of adoption of GP 2007, and establishing minimum requirements of the plan to reduce greenhouse gas emissions to the 1990 level by 2020.

Coastal Plans

As required by the California Coastal Act, areas in Monterey County within the coastal zone are governed by local coastal plans. Four land use plans and the Moss Landing Community Plan (included as part of the North County Coastal Land Use Plan) govern land use in the coastal areas of unincorporated Monterey County:

- North County Land Use Plan
- Moss Landing Community Plan
- Del Monte Forest Land Use Plan
- Carmel Land Use Plan
- Big Sur Coast Land Use Plan

The coastal land use plans in conjunction with coastal implementation plans make up Monterey County’s Local Coastal Program for its coastal zone areas. GP 2006 did not amend the Local Coastal Program, and proposed GP 2007 will not change any part of the certified Local Coastal Program, including any land use designations or policies.

However, development authorized under these plans will be included in the cumulative impact analysis in the SEIR prepared for GP 2007.

IV. Potential Environmental Effects

The SEIR will evaluate how potential buildout of the proposed General Plan Update could potentially have a significant environmental effect. Topics that will be further analyzed in the SEIR include, but are not limited to, the following:

Air Quality

Buildout of the proposed GP 2007 would result in the development of new urban uses, as well as new wineries within the AWCP. Short-term construction-related activities (e.g., earthmoving activities) and long-term operational activities (e.g., daily vehicle trips) associated with new development could result in emissions that exceed established air quality standards. The SEIR will evaluate impacts on air quality that would occur from a reasonable buildout estimate of the proposed GP 2007.

Biological Resources

The SEIR will evaluate if future growth anticipated by the proposed GP 2007 could result in result in direct or indirect impacts to special-status species, sensitive vegetation communities, and other biological resources.

Land Use

The SEIR will examine the implications of GP 2007 buildout on land use.

Noise

The SEIR will consider noise resulting from traffic levels identified in the traffic analysis prepared for GP 2007 and other development allowed by GP 2007.

Population and Housing

Population growth from proposed GP 2007 buildout could have an adverse impact on population and housing. The SEIR will evaluate if influx of new residents could exceed current growth projections, resulting in the displacement of existing persons or housing.

Transportation

The proposed GP 2007 would generally establish Level of Service “D” as the minimum performance standard for roadways within Monterey County’s jurisdiction. The SEIR will analyze the impacts of GP 2007 buildout as it relates to roadway performance, as well as emergency access, parking capacity, and public transportation. Consideration

will also be given to traffic that could reasonably be foreseen to be generated by winery-related development within the AWCP.

Water Resources

Proposed GP 2007 buildout could create additional demand for potable water relative to current conditions and result in the degradation of water quality. Several surface and sub-surface water bodies have existing problems with overdraft, contamination, and/or seawater intrusion. The SEIR will examine how buildout of the proposed GP 2007 could affect water supply, water quality, stormwater runoff, and the need for new water infrastructure.

Other Subjects

Proposed GP 2007 impacts will also be considered as they relate to the following subjects:

- agricultural resources;
- geology, soils, and seismicity;
- mineral resources;
- cultural resources;
- public services and utilities;
- parks and recreation;
- hazards and hazardous materials; and
- aesthetics, light, and glare.

Cumulative Impacts

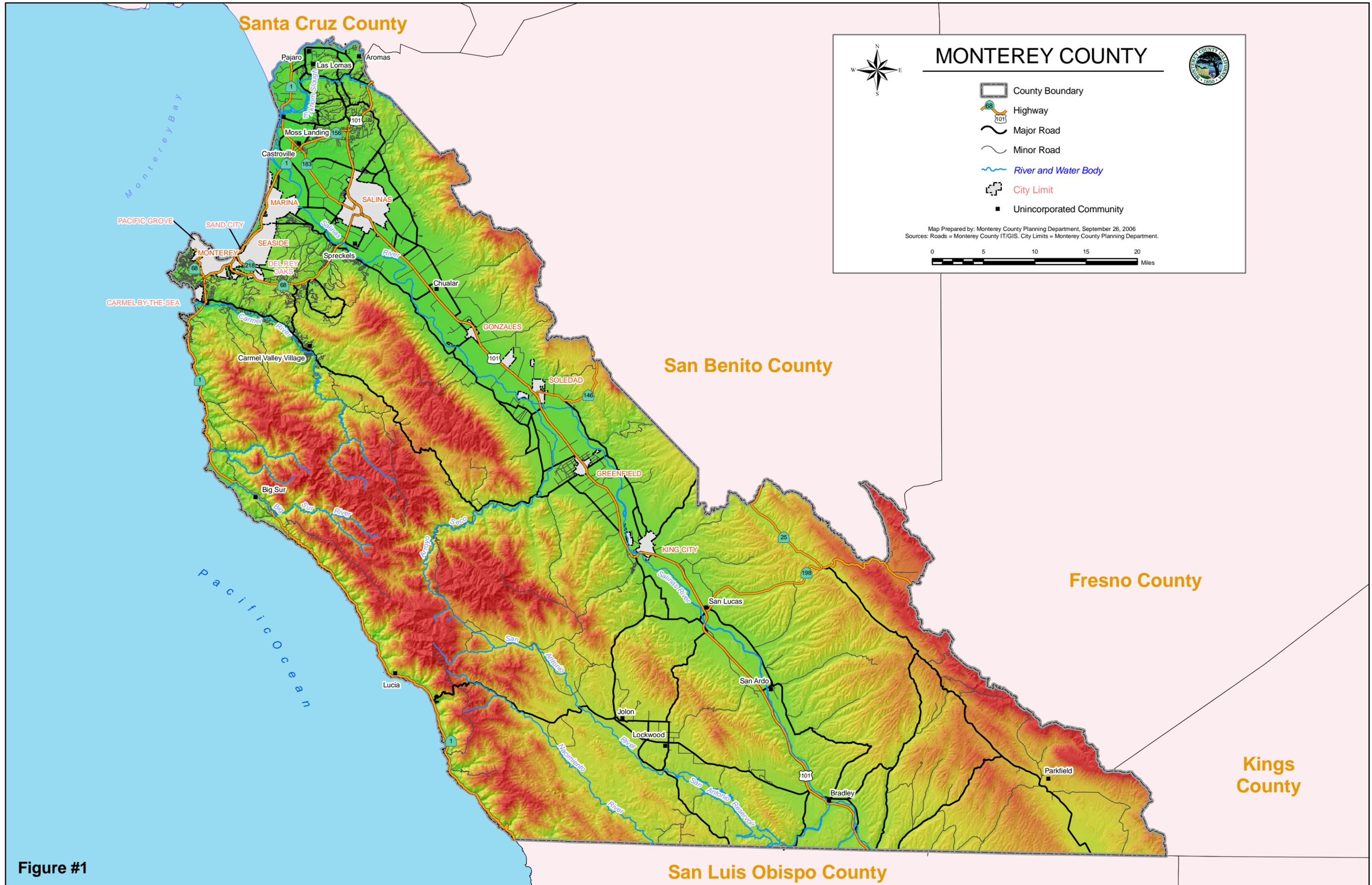
The SEIR will consider the cumulative impacts of the proposed GP 2007. The SEIR will consider cumulative greenhouse gas emission impacts of potential buildout on climate change and impacts of climate change on Monterey County.

Alternatives

The SEIR will consider alternatives to the proposed GP 2007, including the alternatives previously analyzed in the EIR prepared for GP 2006 (i.e., No Project Alternative -1982 General Plan, GPU 3, Amendment of the 1982 General Plan including the North County LUP [GPI] and GP 2006).

Mitigation Measures

The SEIR will identify feasible mitigation measures for all identified significant effects. This will include providing performance criteria or mitigation options.



Santa Cruz County

San Benito County

Fresno County

Kings County

San Luis Obispo County

Monterey Bay

Pacific Ocean

PACIFIC GROVE

SAND CITY

MONTEREY

SEASIDE

MARINA

SALINAS

Castroville

Moss Landing

Pajaro

Las Lomas

Aromas

101

156

183

1

68

218

68

DEL REY OAKS

SEASIDE

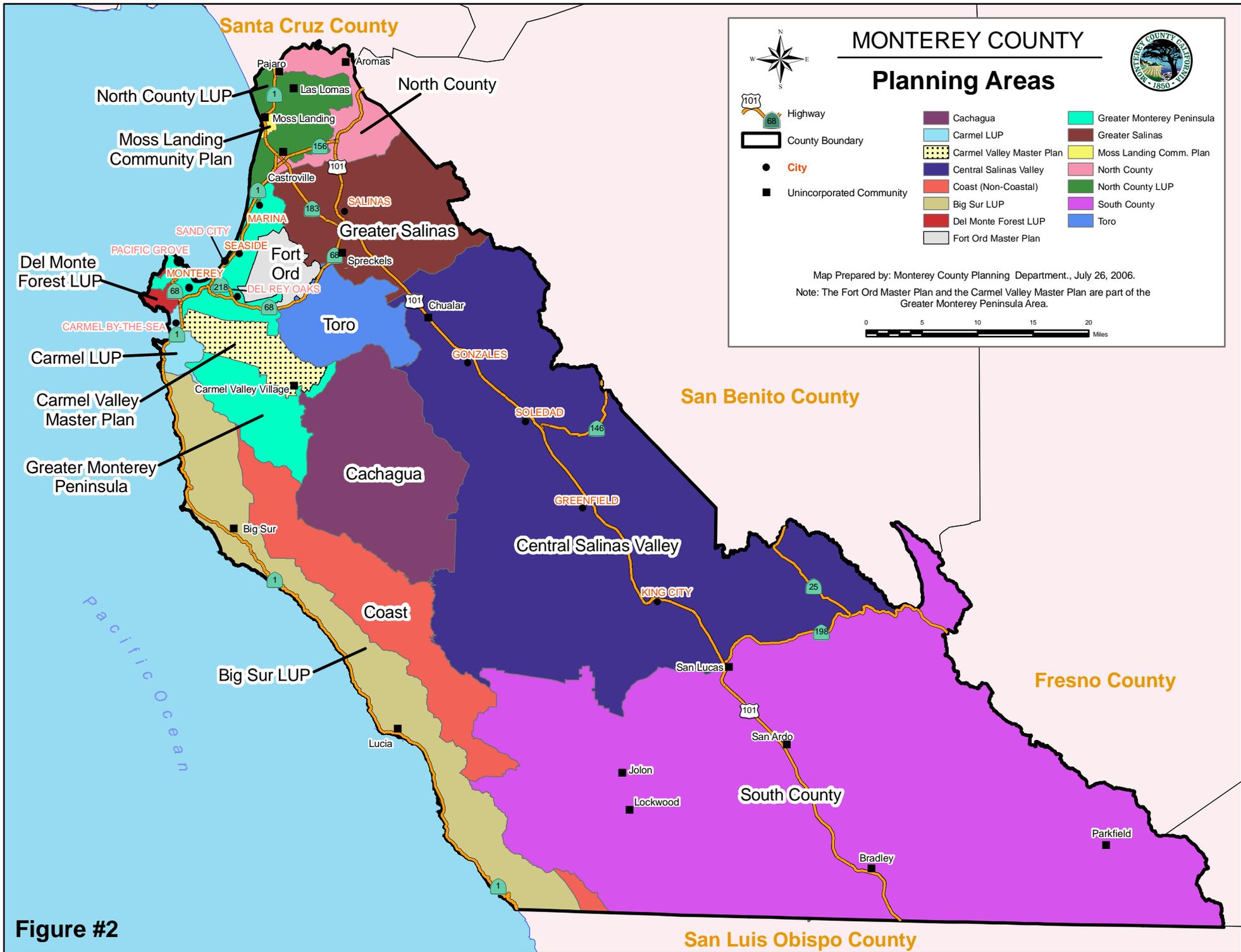


Figure #2

Appendix B – Greenhouse Gas Emissions Inventory and Forecast Methodology

GHG Inventory Methodology

This appendix contains an explanation of the methodology used to calculate GHG emissions for Monterey County unincorporated area in 2006, 2030, and at buildout with implementation of the 2007 GP.

2006 GHG Inventory

GHG emissions were estimated for vehicle use, natural gas consumption, electricity consumption, industrial processes, annual solid waste landfilled, and agricultural equipment fuel use. The methodology used for to estimate GHG emission from each source is described below.

Vehicle Emissions

Emissions from on-road vehicle use, including heavy duty trucks and buses were quantified using average annual vehicle miles traveled (VMT) for the unincorporated areas of Monterey County. VMT data for 2006 was obtained from the California Department of Transportation (Caltrans) Highway Performance Monitoring System (HPMS) 2006 public road data (California Department of Transportation 2007) for unincorporated County roads and state highways. Modeled average traffic speeds were calculated based on daily VMT and daily vehicle hours of travel data provided by Kimley-Horn Associates. The ARB emission factor model (EMFAC2007 Version 2.3, hereafter referred to as EMFAC) was used to estimate CO₂ and CH₄ emissions from vehicle activity in the unincorporated areas of Monterey County for 2006. Default vehicle fleet profile for Monterey County was used in calculating GHG emissions. The temperature and relative humidity selected for modeling were 60°F and 30% respectively. All of the miles on the County roads were included and 25% of the miles on state highways (based on unincorporated County having 25% of the population of the County as a whole).

Building Natural Gas and Electricity

Electricity and natural gas consumption for all residential, commercial, and industrial buildings within the unincorporated area of Monterey County in 2006 was obtained from Pacific Gas and Electric Company (PG&E) (Bruso pers. comm.). Table B-1 lists the electricity and natural gas consumption for the unincorporated area of Monterey County in 2006 provided by PG&E (Bruso pers. comm.).

Table B-1. 2006 Electricity and Natural Gas Consumption

Fuel Type	Annual Consumption ¹
Electricity	1,008,090,911 kWh
Natural Gas	35,869,687 therms

¹ Source: Forney pers. comm.

Since PG&E is a member of the California Climate Action Registry, an area-specific carbon dioxide emissions factor of 456 pounds per megawatt hours (lbs/MWh) was available (Bruso pers. comm.). California Climate Action Registry emission factors for CH₄ and N₂O from electricity consumption were used to estimate emissions of CH₄ and N₂O from electricity consumption (California Climate Action Registry 2008). Natural gas combustion GHG emission factors for residential, commercial and industrial natural gas combustion were obtained from The Climate Registry general reporting protocol (The Climate Registry 2008).

Industrial Processes

GHG emissions from industrial processes for the County of Monterey were provided by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) (Getchell pers. comm.). GHG emissions for industries in Monterey County were provided by zip code. Zip code information was used to determine which GHG emissions from industrial processes occurred within the unincorporated areas of Monterey County in 2006. GHG emissions from electricity-producing industrial processes were not included because these emissions are already accounted for in the emission factor for electricity consumption reported by PG&E.

Landfill Emissions

Monterey County unincorporated area generated 138,428 tons of solid waste in 2006 (California Integrated Waste Management Board 2008b). The deposition of food waste, yard trimmings, paper and wood in landfills results in the production of CH₄ and CO₂ when anaerobic bacteria degrade the material (Environmental Protection Agency 2006b). CO₂ is produced during the natural degradation process; however, emissions of methane are a result of landfilling waste and are therefore considered to be anthropogenic emissions. Some landfills flare off the methane produced, or utilize the CH₄ emissions for energy through gas recovery systems; currently utilizes methane flaring technology (California Integrated Waste Management Board 2001).

Most recent available waste stream data for residential and business collection was gathered from the California Integrated Waste Management Board (CIWMB) website and used to develop a uniform waste stream profile (Table B-2) for all waste generated in the unincorporated areas of Monterey County (California Integrated Waste Management Board 2008a).

Table B-2. State Waste Stream Profile

Waste Type	Percent (%)
Paper Products	21.0
Food Waste	14.6
Plant Debris	36.5
Wood/Textiles	12.0
All Other Waste	15.9

Source: California Integrated Waste Management Board 2008a.

California’s waste stream profile, obtained from the California Integrated Waste Management Board (CIWMB) website, was used, along with CH₄ emission factors for a managed landfill obtained from the International Council for Local Environmental Initiatives (ICLEI) Clean Air and Climate Protection Software (Version 1.1), to calculate annual CH₄ emissions resulting from the waste generated by Monterey County unincorporated area in 2030 (California Integrated Waste Management Board 2008b; International Council for Local Environmental Initiatives 2005). Ninety-seven percent of the waste generated in the unincorporated area of Monterey County was sent to Crazy Horse, Johnson Canyon and Monterey Peninsula landfills, which have methane flaring or landfill gas to energy technologies. The EPA default estimate for methane flaring efficiency is 75%, which results in 75% of the CH₄ emissions being converted to CO₂ emissions as a consequence of the flaring (California Integrated Waste Management Board 2007). This efficiency factor was used to estimate net CH₄ emissions from waste generated in 2006 for Monterey County unincorporated area.

Agricultural Equipment Fuel Use

GHG emissions from agricultural equipment fuel use were estimated using the California Energy Commission (CEC) 2004 GHG inventory and comparing agricultural acreage for California to agricultural acreage in Monterey County. CEC estimates that in 2004, 3.86 million metric tons of CO₂e were emitted as a result of agricultural use of gasoline and diesel (CEC 2006a). The ratio of Monterey County crop acreage to California crop acreage was used to apportion statewide GHG emissions from agricultural fuel use to Monterey County accordingly (United States Department of Agriculture 2006).

Additional GHG emissions from agriculture are related to fertilizer use and methane emissions from livestock. The specific nature of these emissions must be based on detailed inventory of fertilizer type and application and livestock management practices. These emissions are not included in the estimate prepared for this document but will be included in the inventory prepared per Policy OS-10.11.

On an average basis, agricultural and grazing lands in the U.S. are currently considered near neutral on an annual basis with respect to their soil carbon balance (USCCSP 2007) and thus no annual GHG emissions related to changes in soil carbon basis are included in the estimate.

2030 and Buildout GHG Inventories

Vehicle Emissions

Emissions from on-road vehicle use, including heavy duty trucks and buses were quantified using average annual vehicle miles traveled (VMT) for the unincorporated areas of Monterey County. VMT data and modeled average traffic speeds for 2030 and buildout under business as usual conditions were calculated based on daily VMT and daily vehicle hours of travel data provided by Kimley-Horn Associates. VMT for the unincorporated area of Monterey County was apportioned based on 2006 VMT data for the unincorporated area and for the County. The ARB emission factor model EMFAC was used to estimate CO₂ and CH₄ emissions from vehicle activity in the unincorporated areas of Monterey County for 2030 and 2040 for buildout. EMFAC does not model emissions past 2040 so this final model year was used to emulate a worst case GHG emissions scenario under buildout conditions. Default vehicle fleet profile for Monterey County was used in calculating GHG emissions. The temperature and relative humidity selected for modeling were 60°F and 30% respectively.

The adoption of AB 1493 is expected to reduce GHG emissions from passenger vehicles by 11% by 2016 (California Air Resources Board 2008). This GHG reduction was applied to the GHG emissions from light duty vehicles output by EMFAC.

Under the ARB Draft Scoping Plan, AB 1493, Pavley I, and a more stringent fuel efficiency standard, Pavley II, would be implemented by 2020 and would reduce GHG emissions from passenger vehicles by 20% in 2020 (California Air Resources Board 2008). Furthermore, a Low Carbon Fuel Standard would be required, which would reduce GHG emissions from passenger vehicles by a further 10%. Other proposed regulations to reduce GHG emissions from heavy-duty vehicles were proposed but are not quantified in this analysis.

Building Natural Gas and Electricity

The proposed project would receive electricity generated by Pacific Gas and Electric Company (PG&E), which has a lower CO₂ emissions factor than the statewide average emissions factor. The CO₂ emissions factor for electricity provided to Monterey County in 2030 and at buildout was estimated assuming that PG&E's reported 2006 CO₂ emission factor remained constant under business as usual conditions (Bruso pers. comm.). The increased electricity demand due to increased residential, commercial and industrial development was estimated through use of the California Energy Commission Residential Appliance Saturation Survey and Commercial End Use Survey (CEC 2004; CEC 2006b). Energy intensities of kWh per square foot were assumed for residential, commercial, and industrial square footage for 2030 and buildout. Where 2006 energy intensities per square foot were higher based on electricity use data provided by PG&E, the higher number was used.

Assembly Bill 1078, accelerated by SB 107, requires that all electric utilities increase their renewable energy resources by 1 percent per year until 20 percent of retail sales are procured from renewable energy resources. PG&E's current energy mix (12 percent) is assumed to reach 20 percent by the year 2030, which is an 8 percent increase the renewable energy mix (Pacific Gas and Electric Company 2007). This 8 percent increase was assumed to correspond to an 8 percent decrease in the CO₂ emission factor. Using

this methodology, the estimated 2030 emissions factor is 450.1 pounds of CO₂ per MWh. This emission factor was used to estimate increased GHG emissions for 2030 with adopted regulations.

The Scoping Plan calls for an increase in RPS standards to 33%, which would result in a reduction of 21% in the GHG emissions related to electricity production by PG&E. The reduced GHG emissions under the Scoping Plan were estimated for 2030 and buildout using the expected 21% reduction in GHG emissions per kWh.

The URBEMIS 2007 (Version 9.2.4) model was used to estimate natural gas GHG emissions from increased residential, commercial, and industrial buildings in 2030 and at buildout. There are currently no anticipated regulations to reduce GHG emissions from the use of natural gas in buildings.

Industrial Processes

GHG emissions for industrial processes for 2030 and buildout were scaled from the 2006 inventory based on the percentage growth in industrial employment estimated in the traffic model.

Landfill Emissions

GHG emissions for landfills for 2030 and buildout were scaled from the 2006 inventory based on the percentage growth in population.

Agricultural Emissions

Based on trends in agricultural employment (AMBAG 2004; AMBAG 2008), no net expansion in agricultural development is projected for 2030 as virtually no increase in agricultural employment is forecast by AMBAG to 2030 for the Monterey County in the most recent (2008) and the immediately prior (2004) economic forecasts. Thus, no estimate of additional agricultural emissions was made for 2030. For buildout, agricultural conditions are unknown and thus are not estimated.

Emissions Associated With Land Use Changes

As described in Chapter 4.9, *Biological Resources*, there will be three areas of net land use change by related to the development allowed by the 2007 GP: urban conversion of farmland, urban conversion of natural landcovers, and agricultural conversion of natural landcovers (dominated by annual grassland, with smaller areas of oak woodland and other vegetation communities).

Farmland net carbon balances depend on the cropping and tillage practice. Depending on the tillage practices, farming can sequester soil carbon on an annual basis or can be a net generator of carbon due to losses of soil carbon. On an average basis, agricultural and grazing lands in the U.S. are currently near neutral on an annual basis with respect to their soil carbon balance (USCCP 2007). Thus, conversion of farming land to urban land on average would not be expected to result in a loss of annual net carbon sequestration but could result in the reduction of soil carbon stock due to grading and development activities. As calculation of soil carbon loss is subject to numerous uncertainties at an abstract level, it was not included in the total GHG emission estimated for the EIR. However, calculation of potential changes in carbon stock due to urban conversion of farmland will be included, as feasible, in the detailed inventory to be prepared pursuant to Policy OS -0-11.

Urban or agricultural conversion of natural landcovers would also result in the loss of the stock carbon in soils, grasses, scrub, and trees as well as the loss of the annual sequestration value of existing soils and vegetation. Where converted to urban losses, the loss in sequestration would be near total. Where converted to agricultural use, the net change in carbon sequestration would depend on the nature of the crops planted and tillage practices compared to the sequestration value of the prior natural landcover. On an average basis, agricultural and grazing lands in the U.S. are currently near neutral on an annual basis with respect to their soil carbon balance. Thus, conversion of farming land to urban land on average would not be expected to result in a loss of annual net carbon sequestration but could result in the reduction of soil carbon stock due to grading and development activities. The net impact of soil erosion on carbon emissions to the atmosphere remains highly uncertain (USCCP 2007). Development is unlikely to result in the entire loss of carbon stocks. As calculation of soil carbon loss is subject to numerous uncertainties at an abstract level, it was not included in the total GHG emission estimated for the EIR. However, calculation of potential changes in carbon stock due to urban conversion of farmland will be included, as feasible, in the detailed inventory to be prepared pursuant to Policy OS 10-11.

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Appendix B Errata– Climate Change Methodology – References –

12/12/08

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Appendix C
Traffic Data

TABLE A
EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
COUNTY ROADWAYS					
County Road G11 (San Juan Rd)					
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	11,000	0.942	E
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway (Undivided)	11,680	7,950	0.681	D
Aromas Rd to Carpenteria Rd	2-Lane Major Roadway (Undivided)	11,680	10,950	0.938	E
Carpenteria Rd to US-101	2-Lane Major Roadway (Undivided)	11,680	8,600	0.736	D
County Road G12 (Salinas Rd/Elkhorn Rd/Hall Rd/San Miguel Canyon Rd)					
Porter Dr to Railroad Ave	2-Lane Major Roadway	14,600	18,050	1.236	F
Railroad Ave to Elkhorn Rd	4-Lane Major Roadway	30,900	18,050	0.584	D
Salinas Rd to Hall Rd	2-Lane Major Roadway	14,600	19,550	1.339	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	21,950	1.879	F
Hall Rd to Strawberry Rd	2-Lane Major Roadway (Undivided)	11,680	13,100	1.122	F
Strawberry Rd to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	17,350	1.485	F
Castroville Blvd to US-101	2-Lane Major Roadway	14,600	21,700	1.486	F
County Road G13 (Bitterwater Rd)					
King City to San Benito County	2-Lane Major Roadway (d)	14,600	830	0.057	C
County Road G14 (Jolon Rd/Interlake Rd)					
US-101 to San Lucas Rd	2-Lane Major Roadway (d)	14,600	8,500	0.582	D
San Lucas Rd to Lockwood	2-Lane Major Roadway (d)	14,600	1,500	0.103	C
Lockwood to San Luis Obispo County	2-Lane Major Roadway (d)	14,600	270	0.018	C
County Road G15 (Metz Rd)					
SR-146 to Elm Ave	2-Lane Major Roadway (d)	14,600	1,040	0.071	C
Elm Ave to Spreckels Rd	2-Lane Major Roadway (d)	14,600	760	0.052	C
County Road G16 (Carmel Valley Road/Arroyo Seco Rd/Elm Ave)					
Via Los Tulares to Cachagua Rd	2-Lane Major Roadway (d)	14,600	3,500	0.240	C
Cachagua Rd to Arroyo Seco Rd	2-Lane Major Roadway (d)	14,600	935	0.064	C
Carmel Valley Rd to Elm Ave	2-Lane Major Roadway (d)	14,600	760	0.052	C
Arroyo Seco Rd to Central Ave	2-Lane Major Roadway (d)	14,600	520	0.036	C
US-101 to Metz Rd	2-Lane Major Roadway (d)	14,600	1,450	0.099	C
County Road G17 (Reservation Rd/River Rd/Ft Romie Rd/Arroyo Seco Rd)					
Blanco Rd to East Garrison Rd	4-Lane Major Roadway	30,900	5,800	0.188	C
East Garrison Rd to Davis Rd	2-Lane Major Roadway (d)	14,600	6,100	0.418	C
Davis Rd to SR-68	2-Lane Major Roadway (Undivided)	11,680	8,150	0.698	D
SR-68 to Las Palmas Rd	4-Lane Major Roadway	30,900	14,850	0.481	C
Las Palmas Rd to Las Palmas Pkwy	2-Lane Major Roadway	14,600	11,750	0.805	D
Las Palmas Pkwy to Pine Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	5,000	0.428	C
Pine Canyon Rd to Chualar River Rd	2-Lane Major Roadway (Undivided)	11,680	4,850	0.415	C
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway (Undivided)	11,680	965	0.083	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway (Undivided)	11,680	720	0.062	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway (Undivided)	11,680	2,250	0.193	C
Ft Romie Rd to Elm Ave	2-Lane Major Roadway (Undivided)	11,680	2,300	0.197	C
County Road G18 (Jolon Rd)					
Lockwood to US-101	2-Lane Major Roadway (d)	14,600	900	0.062	C
County Road G20 (Laureles Grade Rd)					
SR-68 to Robley Rd	2-Lane Major Roadway (Undivided)	11,680	6,900	0.591	D
Robley Rd to Carmel Valley Rd	2-Lane Major Roadway (Undivided)	11,680	6,800	0.582	D
Abbott St					

**TABLE A
EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
US-101 to Salinas City Line	3-Lane Other Roadway	18,000	16,124	0.896	E
Alisal Rd					
Salinas City Line to Old Stage Rd	2-Lane Major Roadway (Undivided)	11,680	3,050	0.261	C
Alta St					
Old Stage Rd to Gonzales City Line	2-Lane Major Roadway (Undivided)	11,680	5,100	0.437	C
Aromas Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	2,850	0.244	C
Arroyo Seco Rd					
Fort Romie Rd to US-101	2-Lane Major Roadway (d)	14,600	4,100	0.281	C
Blackie Rd					
SR-183 to Commercial Pkwy E	4-Lane Other Roadway	24,000	10,850	0.452	D
Commercial Pkwy E to US-101	2-Lane Other Roadway (Undivided)	9,600	2,550	0.266	C
Blanco Rd					
Reservation Rd to Cooper Rd	2-Lane Other Roadway (d)	12,000	24,400	2.033	F
Cooper Rd to Armstrong Rd	2-Lane Other Roadway (d)	12,000	25,750	2.146	F
Armstrong Rd to Davis Rd	2-Lane Other Roadway (d)	12,000	27,500	2.292	F
Boronda Rd					
Southern Terminus to Brooks Rd	2-Lane Other Roadway (Undivided)	9,600	2,150	0.224	C
Brooks Rd to Salinas City Line	2-Lane Other Roadway (Undivided)	9,600	950	0.099	C
Calle Del Adobe					
Boronda Rd to Post Dr	2-Lane Other Roadway (Undivided)	9,600	3,450	0.359	C
Camino Del Monte					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	5,100	0.531	D
Carmel Rancho Blvd					
Carmel Valley Blvd to Carmel Rancho Ln	4-Lane Other Roadway	24,000	14,850	0.619	D
Carmel Rancho Ln to Rio Rd	4-Lane Other Roadway	24,000	9,650	0.402	C
Carpenter St					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	7,950	0.828	E
Serra Ave to SR-1	2-Lane Other Roadway	12,000	16,250	1.354	F
Carpenteria Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	5,400	0.462	C
Castroville Blvd					
SR-156 to Dolan Rd	2-Lane Major Roadway	14,600	5,200	0.356	C
Dolan Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	5,200	0.445	C
Central Ave					
Elm Ave to US-101	2-Lane Other Roadway (Undivided)	9,600	450	0.047	C
Chualar Rd					
US-101 to Old Stage Rd	2-Lane Other Roadway (d)	12,000	2,850	0.238	C
Chualar River Rd					
River Rd to Foletta Rd	2-Lane Other Roadway (d)	12,000	3,900	0.325	C
Cooper Rd					
Nashua Rd to Blanco Rd	2-Lane Other Roadway (d)	12,000	2,500	0.208	C
Corral De Tierra					
SR-68 to Robley Rd	2-Lane Other Roadway (Undivided)	9,600	6,550	0.682	D
Crazy Horse Canyon Rd					
San Juan Grade Rd to US-101	2-Lane Major Roadway (Undivided)	11,680	5,250	0.449	C
Davis Rd					

**TABLE A
EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
Blanco Rd to Reservation Rd	2-Lane Other Roadway (Undivided)	9,600	9,200	0.958	E
Dolan Rd					
SR-1 to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	3,800	0.325	C
Dunbarton Rd					
SR-101 to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	3,750	0.391	D
Echo Valley Rd					
San Miguel Canyon Rd to US-101	2-Lane Other Roadway (Undivided)	9,600	5,250	0.547	D
Elkhorn Rd					
Hall Rd to Strawberry Rd	2-Lane Other Roadway (Undivided)	9,600	2,000	0.208	C
Espinosa Rd					
SR-183 to US-101	2-Lane Other Roadway (Undivided)	9,600	8,600	0.896	E
Esquiline Rd					
Southbank Rd to Carmel Valley Rd	2-Lane Other Roadway (Undivided)	9,600	3,600	0.375	D
Gonzales River Rd					
River Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	2,350	0.201	C
Grant St					
Payson Rd to Scott St	2-Lane Other Roadway (Undivided)	9,600	4,850	0.505	D
Scott St to Clay St	2-Lane Other Roadway (Undivided)	9,600	5,250	0.547	D
Harkins Rd/Hatton Ave					
Spreckels Blvd to Salinas City Line	2-Lane Major Roadway (Undivided)	11,680	3,700	0.317	C
Harris Rd					
Spreckels Blvd to Abbott St	2-Lane Other Roadway (Undivided)	9,600	8,100	0.844	E
Harrison Rd					
Russell Rd to Martines Rd	2-Lane Other Roadway (Undivided)	9,600	3,150	0.328	C
Martines Rd to Damian Way	2-Lane Other Roadway (Undivided)	9,600	2,300	0.240	C
Hartnell Rd					
SR-101 to Alisal Rd	2-Lane Other Roadway (d)	12,000	3,850	0.321	C
Hebert Rd					
San Juan Grade Rd to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	4,250	0.443	D
Hitchcock Rd					
SR-68 to Davis Rd	2-Lane Other Roadway (d)	12,000	3,500	0.292	C
Hunter Ln					
SR-68 to Harkins Rd	2-Lane Other Roadway (d)	12,000	3,700	0.308	C
Lockwood-San Lucas Rd					
US-101 to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	300	0.031	C
Molera Rd					
SR-1 to SR-1 (south of Moss Landing)	2-Lane Other Roadway (d)	12,000	870	0.073	C
Monte Rd					
Del Monte Blvd to Nashua Rd	2-Lane Other Roadway (d)	12,000	3,600	0.300	C
Murphy Rd					
San Juan Rd to Santa Cruz County	2-Lane Other Roadway (d)	12,000	4,100	0.342	C
Nashua Rd					
SR-1 to Cooper Rd	2-Lane Other Roadway (d)	12,000	3,050	0.254	C
Ocean Ave					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	11,800	1.229	F
Old Stage Rd					
Hebert Rd to Natividad Rd	2-Lane Major Roadway (Undivided)	11,680	5,700	0.488	D

TABLE A
EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
Natividad Rd to Williams Rd	2-Lane Major Roadway (Undivided)	11,680	1,900	0.163	C
Williams Rd to Alisal Rd	2-Lane Major Roadway (Undivided)	11,680	3,200	0.274	C
Alisal Rd to Chualar Rd	2-Lane Major Roadway (Undivided)	11,680	3,750	0.321	C
Chualar Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	2,100	0.180	C
Pajaro St					
SR-183 to Geil St	2-Lane Other Roadway (Undivided)	9,600	3,300	0.344	C
Pesante Rd					
SR-101 to End	2-Lane Other Roadway (Undivided)	9,600	4,200	0.438	D
Pine Canyon Rd (King City)					
Pine Meadow Dr to Merritt St	2-Lane Other Roadway	12,000	3,100	0.258	C
Merritt St to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	5,600	0.583	D
Porter Dr					
Salinas Rd to San Juan Rd	4-Lane Other Roadway	24,000	23,200	0.967	E
San Juan Rd to Santa Cruz County	4-Lane Other Roadway	24,000	34,150	1.423	F
Portola Dr (Toro Park)					
Reservation Rd to Creekside Ter	2-Lane Other Roadway (Undivided)	9,600	2,900	0.302	C
Creekside Ter to Anza Dr	2-Lane Other Roadway (Undivided)	9,600	1,200	0.125	C
Anza Dr to Manolete Dr	2-Lane Other Roadway (Undivided)	9,600	4,350	0.453	D
Manolete Dr to Toreador Dr	2-Lane Other Roadway (Undivided)	9,600	3,550	0.370	D
Prunedale North Rd					
SR-156 to San Miguel Canyon	2-Lane Other Roadway (Undivided)	9,600	4,400	0.458	D
Rio Rd					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	11,150	1.161	F
SR-1 to Carmel Rancho Blvd	4-Lane Other Roadway	24,000	13,800	0.575	D
Robinson Canyon Rd					
Carmel Valley Rd to Holt Rd	2-Lane Other Roadway	12,000	3,800	0.317	C
Rogge Rd					
San Juan Grade Rd to Natividad Rd	2-Lane Other Roadway (Undivided)	9,600	6,350	0.661	D
Russell Rd					
SR-101 to San Juan Grade Rd	2-Lane Other Roadway (Undivided)	9,600	6,350	0.661	D
Salinas Rd					
SR-1 to Fruitland Ave	2-Lane Major Roadway (Undivided)	11,680	11,350	0.972	E
Fruitland Ave to Elkhorn Rd	3-Lane Major Roadway	22,750	11,350	0.499	C
San Benancio Rd					
Corral Del Ciello to Harper Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	2,050	0.214	C
Harper Canyon Rd to SR-68	2-Lane Other Roadway (Undivided)	9,600	5,450	0.568	D
San Juan Grade Rd					
Salinas City Line to Russell Rd	2-Lane Major Roadway (Undivided)	11,680	11,850	1.015	F
Russell Rd to Rogge Rd	2-Lane Major Roadway	14,600	10,900	0.747	D
Rogge Rd to Hebert Rd	2-Lane Major Roadway (Undivided)	11,680	2,500	0.214	C
Hebert Rd to Crazy Horse Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	4,700	0.402	C
San Miguel Canyon Rd					
San Juan Rd to Tarpey Rd	2-Lane Other Roadway (Undivided)	9,600	2,450	0.255	C
Tarpey Rd to Hall Rd	2-Lane Other Roadway	12,000	6,300	0.525	D
Serra Ave					
Guadalupe St to Carpenter St	2-Lane Other Roadway (Undivided)	9,600	6,400	0.667	D
Spence Rd					

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EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
SR-101 to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	4,200	0.438	D
Spreckels Blvd					
SR-68 to Harkins Rd	2-Lane Major Roadway	14,600	7,050	0.483	D
Strawberry Rd					
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	1,900	0.198	C
Tarpey Rd					
San Miguel Canyon Rd to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	4,900	0.510	D
Vierra Canyon Rd					
SR-156/SR-101 to Oak Rd	2-Lane Other Roadway	12,000	2,500	0.208	C
Oak Rd to End	2-Lane Other Roadway (Undivided)	9,600	3,200	0.333	C
REGIONAL ROADWAYS					
US Highway 101					
San Benito County to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	67,000	1.044	F
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	63,500	0.989	E
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	64,200	92,500	1.441	F
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	64,200	71,000	1.106	F
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	64,200	71,000	1.106	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	64,200	70,500	1.098	F
E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	79,000	1.143	F
W Laurel Dr to N Main St	4-Lane Freeway	69,100	76,500	1.107	F
N Main St to E Market St	4-Lane Freeway	69,100	81,000	1.172	F
E Market St to John St	4-Lane Freeway	69,100	77,000	1.114	F
John St to S Sanborn Rd	4-Lane Freeway	69,100	62,000	0.897	D
S Sanborn Rd to Airport Blvd	4-Lane Freeway	69,100	51,500	0.745	C
Airport Blvd to Abbott St	4-Lane Freeway	69,100	42,500	0.615	C
Abbott St to Spence Rd	4-Lane Uninterrupted Flow Highway	64,200	42,500	0.662	C
Spence Rd to Chualar Rd	4-Lane Uninterrupted Flow Highway	64,200	44,000	0.685	D
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	64,200	42,000	0.654	C
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	64,200	41,500	0.646	C
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	64,200	38,500	0.600	C
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	64,200	40,500	0.631	C
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	64,200	40,000	0.623	C
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	64,200	41,500	0.646	C
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	64,200	42,500	0.662	C
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	64,200	38,000	0.592	C
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	64,200	35,000	0.545	C
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	64,200	25,000	0.389	B
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	64,200	24,900	0.388	B
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	64,200	28,650	0.446	B
Jolon Rd to Broadway St	4-Lane Freeway	69,100	27,050	0.391	B
Broadway St to S 1st St	4-Lane Freeway	69,100	20,950	0.303	A
S 1st St to Wildhorse Rd	4-Lane Freeway	69,100	17,150	0.248	A
Wildhorse Rd to SR-198	4-Lane Freeway	69,100	16,350	0.237	A
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	69,100	15,600	0.226	A
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	69,100	14,400	0.208	A
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	69,100	14,850	0.215	A
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	69,100	15,350	0.222	A

TABLE A
EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
Alvarado Rd to Jolon Rd	4-Lane Freeway	69,100	15,300	0.221	A
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	69,100	19,400	0.281	A
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	69,100	19,500	0.282	A
Bradley Rd to San Luis Obispo County	4-Lane Freeway	69,100	19,500	0.282	A
SR-1					
Santa Cruz County to Salinas Rd	3-Lane Uninterrupted Flow Highway	44,550	34,250	0.769	D
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	24,900	38,500	1.546	F
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	24,900	41,500	1.667	F
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	24,900	37,250	1.496	F
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	24,900	35,500	1.426	F
SR-183 to SR-156	4-Lane Freeway	69,100	21,000	0.304	A
SR-156 to Del Monte Blvd	4-Lane Freeway	69,100	49,000	0.709	C
Del Monte Blvd to Reservation Rd	4-Lane Freeway	69,100	51,000	0.738	C
Reservation Rd to Del Monte Blvd	4-Lane Freeway	69,100	51,000	0.738	C
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	106,700	64,000	0.600	C
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	106,700	83,000	0.778	D
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	82,500	0.773	D
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	69,100	69,500	1.006	F
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	74,000	1.071	F
Del Monte Ave to N Fremont St	4-Lane Freeway	69,100	60,500	0.876	D
N Fremont St to Aguajito Rd	4-Lane Freeway	69,100	97,500	1.411	F
Aguajito Rd to Munras Ave	4-Lane Freeway	69,100	59,000	0.854	D
Munras Ave to Holman Hwy	4-Lane Freeway	69,100	51,500	0.745	C
Holman Hwy to Carpenter St	4-Lane Freeway	69,100	61,500	0.890	D
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	16,300	8,750	0.537	C
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	16,300	6,100	0.374	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	24,900	6,100	0.245	B
Mal Paso Rd to Old Coast Rd	2-Lane Uninterrupted Flow Highway	24,900	3,900	0.157	B
Old Coast Rd to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	24,900	3,900	0.157	B
Partington Ridge Rd to Willow Creek-los	2-Lane Uninterrupted Flow Highway	24,900	2,500	0.100	B
Willow Creek-los Burros Rd to San Luis	2-Lane Uninterrupted Flow Highway	24,900	2,500	0.100	B
SR-25					
San Benito County to SR-198	2-Lane Class I Two-Way State Arterial	16,300	300	0.018	B
SR-68 (Holman Highway)					
Forest Ave to 17 Mile Dr	2-Lane Class I Two-Way State Arterial	16,300	23,600	1.448	F
17 Mile Dr to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	16,300	26,700	1.638	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	16,300	26,700	1.638	F
CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	16,300	26,700	1.638	F
SR-68 (Monterey Salinas Highway)					
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	15,300	21,750	1.422	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	15,300	21,750	1.422	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	16,300	21,250	1.304	F
Bit Rd to Laureles Grade Rd	2-Lane Class I Two-Way State Arterial	16,300	21,250	1.304	F
Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	24,850	1.525	F
Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	16,300	26,350	1.617	F
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	64,200	30,750	0.479	C
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	64,200	30,750	0.479	C

TABLE A
EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	34,200	27,750	0.811	B
SR-146					
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	14,600	7,400	0.507	D
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	14,600	7,400	0.507	D
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	14,600	3,200	0.219	C
County Road G-15 to Stonewall Canyon	2-Lane Class III Two-Way State Arterial	14,600	3,200	0.219	C
Stonewall Canyon Rd to San Benito Cour	2-Lane Class III Two-Way State Arterial	14,600	365	0.025	C
SR-156					
SR-1 to SR-183	4-Lane Freeway	69,100	27,500	0.398	B
SR-183 to Castroville Blvd	4-Lane Uninterrupted Flow Highway	64,200	31,000	0.483	C
Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	16,300	31,000	1.902	F
SR-183					
SR-1 to Preston St	2-Lane Class II Two-Way State Arterial	15,300	11,750	0.768	D
Preston St to SR-156	2-Lane Class I Two-Way State Arterial	16,300	11,750	0.721	C
SR-156 to Blackie Rd	2-Lane Class I Two-Way State Arterial	16,300	19,300	1.184	F
Blackie Rd to Espinosa Rd	2-Lane Class I Two-Way State Arterial	16,300	17,500	1.074	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	16,300	16,500	1.012	F
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	34,200	16,500	0.482	B
SR-198					
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	14,600	2,450	0.168	C
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	14,600	1,050	0.072	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	14,600	1,050	0.072	C
SR-25 to Fresno County	2-Lane Class III Two-Way State Arterial	14,600	1,000	0.068	C
SR-218 (Canyon del Rey Blvd)					
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	30,800	22,750	0.739	D
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	30,800	21,800	0.708	D
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	14,600	16,050	1.099	F
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	14,600	16,050	1.099	F
Foam St					
David Ave to Prescott Ave	2-Lane Other Roadway	12,000	7,934	0.661	D
Prescott Ave to Drake Ave	2-Lane Other Roadway	12,000	13,875	1.156	F
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	12,000	15,319	1.277	F
Lighthouse Ave					
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	30,900	2,620	0.085	C
17 Mile Dr to Pacific Ave	4-Lane Major Roadway	30,900	8,926	0.289	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	30,900	13,778	0.446	C
Forest Ave to David Ave	4-Lane Major Roadway	30,900	15,362	0.497	C
David Ave to Prescott Ave	4-Lane Major Roadway	30,900	31,588	1.022	F
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	30,900	50,574	1.637	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	30,900	39,258	1.270	F
Pacific St to Washington St	4-Lane Major Roadway	30,900	34,731	1.124	F
Del Monte Ave					
Washington St to Camino Aguajito	4-Lane Major Roadway	30,900	40,604	1.314	F
Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	30,900	40,585	1.313	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	30,900	44,582	1.443	F
Fremont St					
Abrego St to Camino Aguajito	4-Lane Major Roadway	30,900	32,923	1.065	F

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ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
Munras Ave/Abrego St					
Fremont St to Soledad Dr	4-Lane Other Roadway	24,000	11,221	0.468	D
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	24,000	29,427	1.226	F
Del Monte Blvd					
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	30,900	32,099	1.039	F
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	30,900	32,703	1.058	F
Broadway Ave to Playa Ave	4-Lane Major Roadway	30,900	12,326	0.399	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	30,900	11,166	0.361	C
Fremont Blvd					
N Del Monte Blvd to SR-1	4-Lane Major Roadway	30,900	26,389	0.854	D
Del Monte Blvd					
SR-1 to Reindollar Ave	4-Lane Major Roadway	30,900	33,394	1.081	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	30,900	59,599	1.929	F
N Fremont St					
SR-1 to Casa Verde Wy	4-Lane Major Roadway	30,900	20,234	0.655	D
Casa Verde Wy to SR-218	4-Lane Major Roadway	30,900	29,998	0.971	E
Sanborn Rd					
US-101 to Abbott St	4-Lane Major Roadway	30,900	30,369	0.983	E
N Main St					
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	46,400	19,730	0.425	C
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	38,650	32,154	0.832	D
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	30,900	28,460	0.921	D
E Boronda Rd					
US-101 to N Main St	6-Lane Major Roadway	46,400	42,826	0.923	D
S Main St					
John St to Romie Ln	4-Lane Other Roadway	24,000	18,424	0.768	D
Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	19,607	0.817	D
John St					
S Main St to Abbott St	4-Lane Major Roadway	30,900	12,543	0.406	C
Abbott St to US-101	4-Lane Major Roadway	30,900	33,031	1.069	F
Market St					
Davis Rd to N Main St	4-Lane Other Roadway	24,000	18,444	0.769	D
Davis Rd					
W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	32,670	1.057	F
SR-183 to W Blanco Rd	2-Lane Major Roadway	14,600	35,452	2.428	F
Blanco Rd					
S Davis Rd to W Alisal St	4-Lane Major Roadway	30,900	21,579	0.698	D
W Alisal St to SR-68	4-Lane Major Roadway	30,900	21,579	0.698	D
SR-68 to Abbott St	4-Lane Major Roadway	30,900	17,975	0.582	D
EXTERNAL ROADWAYS					
Santa Clara County					
US Highway 101					
Cochrane Rd to E Dunne Ave	6-Lane Freeway	106,700	121,500	1.139	F
Masten Ave to Leavesley Rd/SR-152 We	6-Lane Freeway	106,700	105,500	0.989	E
Monterey Rd to SR-25	4-Lane Freeway	69,100	74,000	1.071	F
SR-152					
SR-156 to Merced County	4-Lane Freeway	69,100	43,500	0.630	C

**TABLE A
EXISTING CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ESTIMATED 2008 ADT (b)	V/C RATIO (c)	LOS
Santa Cruz County					
SR-1					
Soquel Ave to 41st Ave	4-Lane Freeway	69,100	94,500	1.368	F
Airport Blvd to SR-152	4-Lane Freeway	69,100	60,500	0.876	D
Harkings Slough Rd to SR-129	4-Lane Freeway	69,100	42,000	0.608	C
SR-129 to Monterey County	4-Lane Freeway	69,100	34,000	0.492	B
SR-17					
Santa Clara County to Granite Creek Rd	4-Lane Uninterrupted Flow Highway	64,200	61,500	0.958	E
SR-129 (Riverside Rd)					
Lakeview Rd to Carlton Rd	2-Lane Class I Two-Way State Arterial	16,300	13,800	0.847	D
San Benito County					
US Highway 101					
Santa Clara County to SR-129	4-Lane Freeway	69,100	63,000	0.912	E
SR-25 (Bolsa Rd)					
Santa Clara County to SR-156	2-Lane Class I Two-Way State Arterial	16,300	19,500	1.196	F
SR-156					
Salinas Rd to Union Rd	2-Lane Class I Two-Way State Arterial	16,300	27,800	1.706	F
San Luis Obispo County					
US Highway 101					
Monterey County to San Miguel Ave	4-Lane Freeway	69,100	20,700	0.300	A
Notes:					
Bold and shaded values indicate roadway segments operating at LOS E or F.					
(a) Existing roads street classification is based on the AMBAG Regional Travel Demand Model and aerials of the study area.					
(b) Volumes estimated from 2002-2007 count data obtained from Monterey County, Caltrans, TAMC, City of Salinas, and the City of Monterey.					
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.					
(d) While these roads do not have turn lanes or a median, there are no major conflict points and thus they operate with a higher capacity.					

K:\TPTO\097489000\Excel\Roadway Analysis.xlsx Existing

TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
COUNTY ROADWAYS					
County Road G11 (San Juan Rd)					
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	12,700	1.087	F
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway (Undivided)	11,680	7,600	0.651	D
Aromas Rd to Carpenteria Rd	2-Lane Major Roadway (Undivided)	11,680	11,300	0.967	E
Carpenteria Rd to US-101	2-Lane Major Roadway (Undivided)	11,680	8,900	0.762	D
County Road G12 (Salinas Rd/Elkhorn)					
Porter Dr to Railroad Ave	2-Lane Major Roadway	14,600	17,900	1.226	F
Railroad Ave to Elkhorn Rd	4-Lane Major Roadway	30,900	16,800	0.544	D
Salinas Rd to Hall Rd	2-Lane Major Roadway	14,600	17,300	1.185	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	19,000	1.627	F
Hall Rd to Strawberry Rd	2-Lane Major Roadway (Undivided)	11,680	9,000	0.771	D
Strawberry Rd to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	14,200	1.216	F
Castroville Blvd to US-101	2-Lane Major Roadway	14,600	16,500	1.130	F
County Road G13 (Bitterwater Rd)					
King City to San Benito County	2-Lane Major Roadway (d)	14,600	900	0.062	C
County Road G14 (Jolon Rd/Interlake)					
US-101 to San Lucas Rd	2-Lane Major Roadway (d)	14,600	15,500	1.062	F
San Lucas Rd to Lockwood	2-Lane Major Roadway (d)	14,600	1,900	0.130	C
Lockwood to San Luis Obispo County	2-Lane Major Roadway (d)	14,600	300	0.021	C
County Road G15 (Metz Rd)					
SR-146 to Elm Ave	2-Lane Major Roadway (d)	14,600	1,100	0.075	C
Elm Ave to Spreckels Rd	2-Lane Major Roadway (d)	14,600	1,000	0.068	C
County Road G16 (Carmel Valley Road)					
Via Los Tulares to Cachagua Rd	2-Lane Major Roadway (d)	14,600	4,900	0.336	C
Cachagua Rd to Arroyo Seco Rd	2-Lane Major Roadway (d)	14,600	1,500	0.103	C
Carmel Valley Rd to Elm Ave	2-Lane Major Roadway (d)	14,600	1,300	0.089	C
Arroyo Seco Rd to Central Ave	2-Lane Major Roadway (d)	14,600	900	0.062	C
US-101 to Metz Rd	2-Lane Major Roadway (d)	14,600	1,600	0.110	C
County Road G17 (Reservation Rd/Riv)					
Blanco Rd to East Garrison Rd	4-Lane Major Roadway	30,900	8,000	0.259	C
East Garrison Rd to Davis Rd	2-Lane Major Roadway (d)	14,600	6,700	0.459	C
Davis Rd to SR-68	2-Lane Major Roadway (Undivided)	11,680	9,300	0.796	D
SR-68 to Las Palmas Rd	4-Lane Major Roadway	30,900	18,500	0.599	D
Las Palmas Rd to Las Palmas Pkwy	2-Lane Major Roadway	14,600	14,700	1.007	F
Las Palmas Pkwy to Pine Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	5,900	0.505	D
Pine Canyon Rd to Chualar River Rd	2-Lane Major Roadway (Undivided)	11,680	5,700	0.488	D
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway (Undivided)	11,680	1,200	0.103	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway (Undivided)	11,680	800	0.068	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway (Undivided)	11,680	3,100	0.265	C
Ft Romie Rd to Elm Ave	2-Lane Major Roadway (Undivided)	11,680	2,400	0.205	C
County Road G18 (Jolon Rd)					
Lockwood to US-101	2-Lane Major Roadway (d)	14,600	1,200	0.082	C
County Road G20 (Laureles Grade Rd)					
SR-68 to Robley Rd	2-Lane Major Roadway (Undivided)	11,680	7,700	0.659	D
Robley Rd to Carmel Valley Rd	2-Lane Major Roadway (Undivided)	11,680	8,100	0.693	D
Abbott St					

TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
US-101 to Salinas City Line	3-Lane Other Roadway	18,000	15,800	0.878	E
Alisal Rd					
Salinas City Line to Old Stage Rd	2-Lane Major Roadway (Undivided)	11,680	3,200	0.274	C
Alta St					
Old Stage Rd to Gonzales City Line	2-Lane Major Roadway (Undivided)	11,680	5,100	0.437	C
Aromas Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	3,000	0.257	C
Arroyo Seco Rd					
Fort Romie Rd to US-101	2-Lane Major Roadway (d)	14,600	5,400	0.370	C
Blackie Rd					
SR-183 to Commercial Pkwy E	4-Lane Other Roadway	24,000	15,300	0.638	D
Commercial Pkwy E to US-101	2-Lane Other Roadway (Undivided)	9,600	3,100	0.323	C
Blanco Rd					
Reservation Rd to Cooper Rd	2-Lane Other Roadway (d)	12,000	24,400	2.033	F
Cooper Rd to Armstrong Rd	2-Lane Other Roadway (d)	12,000	25,200	2.100	F
Armstrong Rd to Davis Rd	2-Lane Other Roadway (d)	12,000	26,900	2.242	F
Boronda Rd					
Southern Terminus to Brooks Rd	2-Lane Other Roadway (Undivided)	9,600	4,600	0.479	D
Brooks Rd to Salinas City Line	2-Lane Other Roadway (Undivided)	9,600	1,000	0.104	C
Calle Del Adobe					
Boronda Rd to Post Dr	2-Lane Other Roadway (Undivided)	9,600	7,400	0.771	D
Camino Del Monte					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	6,900	0.719	D
Carmel Rancho Blvd					
Carmel Valley Blvd to Carmel Rancho Ln	4-Lane Other Roadway	24,000	16,100	0.671	D
Carmel Rancho Ln to Rio Rd	4-Lane Other Roadway	24,000	10,100	0.421	C
Carpenter St					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	7,700	0.802	E
Serra Ave to SR-1	2-Lane Other Roadway	12,000	17,200	1.433	F
Carpenteria Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	5,600	0.479	D
Castroville Blvd					
SR-156 to Dolan Rd	2-Lane Major Roadway	14,600	4,700	0.322	C
Dolan Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	4,600	0.394	C
Central Ave					
Elm Ave to US-101	2-Lane Other Roadway (Undivided)	9,600	600	0.063	C
Chualar Rd					
US-101 to Old Stage Rd	2-Lane Other Roadway (d)	12,000	2,900	0.242	C
Chualar River Rd					
River Rd to Foletta Rd	2-Lane Other Roadway (d)	12,000	4,100	0.342	C
Cooper Rd					
Nashua Rd to Blanco Rd	2-Lane Other Roadway (d)	12,000	2,600	0.217	C
Corral De Tierra					
SR-68 to Robley Rd	2-Lane Other Roadway (Undivided)	9,600	6,700	0.698	D
Crazy Horse Canyon Rd					
San Juan Grade Rd to US-101	2-Lane Major Roadway (Undivided)	11,680	10,100	0.865	D
Davis Rd					

**TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Blanco Rd to Reservation Rd	2-Lane Other Roadway (Undivided)	9,600	9,800	1.021	F
Dolan Rd					
SR-1 to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	4,300	0.368	C
Dunbarton Rd					
SR-101 to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	3,000	0.313	C
Echo Valley Rd					
San Miguel Canyon Rd to US-101	2-Lane Other Roadway (Undivided)	9,600	5,100	0.531	D
Elkhorn Rd					
Hall Rd to Strawberry Rd	2-Lane Other Roadway (Undivided)	9,600	1,800	0.188	C
Espinosa Rd					
SR-183 to US-101	2-Lane Other Roadway (Undivided)	9,600	8,600	0.896	E
Esquiline Rd					
Southbank Rd to Carmel Valley Rd	2-Lane Other Roadway (Undivided)	9,600	3,800	0.396	D
Gonzales River Rd					
River Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	2,500	0.214	C
Grant St					
Payson Rd to Scott St	2-Lane Other Roadway (Undivided)	9,600	4,900	0.510	D
Scott St to Clay St	2-Lane Other Roadway (Undivided)	9,600	5,300	0.552	D
Harkins Rd/Hatton Ave					
Spreckels Blvd to Salinas City Line	2-Lane Major Roadway (Undivided)	11,680	4,300	0.368	C
Harris Rd					
Spreckels Blvd to Abbott St	2-Lane Other Roadway (Undivided)	9,600	7,800	0.813	E
Harrison Rd					
Russell Rd to Martines Rd	2-Lane Other Roadway (Undivided)	9,600	3,300	0.344	C
Martines Rd to Damian Way	2-Lane Other Roadway (Undivided)	9,600	2,700	0.281	C
Hartnell Rd					
SR-101 to Alisal Rd	2-Lane Other Roadway (d)	12,000	4,000	0.333	C
Hebert Rd					
San Juan Grade Rd to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	8,500	0.885	E
Hitchcock Rd					
SR-68 to Davis Rd	2-Lane Other Roadway (d)	12,000	3,100	0.258	C
Hunter Ln					
SR-68 to Harkins Rd	2-Lane Other Roadway (d)	12,000	3,600	0.300	C
Lockwood-San Lucas Rd					
US-101 to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	400	0.042	C
Molera Rd					
SR-1 to SR-1 (south of Moss Landing)	2-Lane Other Roadway (d)	12,000	900	0.075	C
Monte Rd					
Del Monte Blvd to Nashua Rd	2-Lane Other Roadway (d)	12,000	1,800	0.150	C
Murphy Rd					
San Juan Rd to Santa Cruz County	2-Lane Other Roadway (d)	12,000	4,200	0.350	C
Nashua Rd					
SR-1 to Cooper Rd	2-Lane Other Roadway (d)	12,000	2,600	0.217	C
Ocean Ave					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	12,200	1.271	F
Old Stage Rd					
Hebert Rd to Natividad Rd	2-Lane Major Roadway (Undivided)	11,680	10,900	0.933	E

**TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Natividad Rd to Williams Rd	2-Lane Major Roadway (Undivided)	11,680	3,200	0.274	C
Williams Rd to Alisal Rd	2-Lane Major Roadway (Undivided)	11,680	3,400	0.291	C
Alisal Rd to Chualar Rd	2-Lane Major Roadway (Undivided)	11,680	3,900	0.334	C
Chualar Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	2,100	0.180	C
Pajaro St					
SR-183 to Geil St	2-Lane Other Roadway (Undivided)	9,600	4,500	0.469	D
Pesante Rd					
SR-101 to End	2-Lane Other Roadway (Undivided)	9,600	5,000	0.521	D
Pine Canyon Rd (King City)					
Pine Meadow Dr to Merritt St	2-Lane Other Roadway	12,000	8,800	0.733	D
Merritt St to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	15,800	1.646	F
Porter Dr					
Salinas Rd to San Juan Rd	4-Lane Other Roadway	24,000	22,600	0.942	E
San Juan Rd to Santa Cruz County	4-Lane Other Roadway	24,000	35,300	1.471	F
Portola Dr (Toro Park)					
Reservation Rd to Creekside Ter	2-Lane Other Roadway (Undivided)	9,600	3,700	0.385	D
Creekside Ter to Anza Dr	2-Lane Other Roadway (Undivided)	9,600	1,500	0.156	C
Anza Dr to Manolete Dr	2-Lane Other Roadway (Undivided)	9,600	4,500	0.469	D
Manolete Dr to Toreador Dr	2-Lane Other Roadway (Undivided)	9,600	3,700	0.385	D
Prunedale North Rd					
SR-156 to San Miguel Canyon	2-Lane Other Roadway (Undivided)	9,600	4,300	0.448	D
Rio Rd					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	11,700	1.219	F
SR-1 to Carmel Rancho Blvd	4-Lane Other Roadway	24,000	14,400	0.600	D
Robinson Canyon Rd					
Carmel Valley Rd to Holt Rd	2-Lane Other Roadway	12,000	4,600	0.383	D
Rogge Rd					
San Juan Grade Rd to Natividad Rd	2-Lane Other Roadway (Undivided)	9,600	6,600	0.688	D
Russell Rd					
SR-101 to San Juan Grade Rd	2-Lane Other Roadway (Undivided)	9,600	7,700	0.802	E
Salinas Rd					
SR-1 to Fruitland Ave	2-Lane Major Roadway (Undivided)	11,680	9,900	0.848	D
Fruitland Ave to Elkhorn Rd	3-Lane Major Roadway	22,750	9,900	0.435	C
San Benancio Rd					
Corral Del Ciello to Harper Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	2,400	0.250	C
Harper Canyon Rd to SR-68	2-Lane Other Roadway (Undivided)	9,600	6,400	0.667	D
San Juan Grade Rd					
Salinas City Line to Russell Rd	2-Lane Major Roadway (Undivided)	11,680	13,600	1.164	F
Russell Rd to Rogge Rd	2-Lane Major Roadway	14,600	14,800	1.014	F
Rogge Rd to Hebert Rd	2-Lane Major Roadway (Undivided)	11,680	4,600	0.394	C
Hebert Rd to Crazy Horse Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	10,000	0.856	D
San Miguel Canyon Rd					
San Juan Rd to Tarpey Rd	2-Lane Other Roadway (Undivided)	9,600	2,500	0.260	C
Tarpey Rd to Hall Rd	2-Lane Other Roadway	12,000	6,700	0.558	D
Serra Ave					
Guadalupe St to Carpenter St	2-Lane Other Roadway (Undivided)	9,600	6,100	0.635	D
Spence Rd					

**TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
SR-101 to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	4,700	0.490	D
Spreckels Blvd					
SR-68 to Harkins Rd	2-Lane Major Roadway	14,600	6,900	0.473	C
Strawberry Rd					
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	1,900	0.198	C
Tarpey Rd					
San Miguel Canyon Rd to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	5,300	0.552	D
Vierra Canyon Rd					
SR-156/SR-101 to Oak Rd	2-Lane Other Roadway	12,000	2,500	0.208	C
Oak Rd to End	2-Lane Other Roadway (Undivided)	9,600	3,400	0.354	C
REGIONAL ROADWAYS					
US Highway 101					
San Benito County to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	68,500	1.067	F
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	64,900	1.011	F
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	64,200	94,600	1.474	F
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	64,200	72,600	1.131	F
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	64,200	72,600	1.131	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	64,200	72,100	1.123	F
E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	80,800	1.169	F
W Laurel Dr to N Main St	4-Lane Freeway	69,100	78,800	1.140	F
N Main St to E Market St	4-Lane Freeway	69,100	82,800	1.198	F
E Market St to John St	4-Lane Freeway	69,100	79,100	1.145	F
John St to S Sanborn Rd	4-Lane Freeway	69,100	63,400	0.918	E
S Sanborn Rd to Airport Blvd	4-Lane Freeway	69,100	52,600	0.761	D
Airport Blvd to Abbott St	4-Lane Freeway	69,100	44,700	0.647	C
Abbott St to Spence Rd	4-Lane Uninterrupted Flow Highway	64,200	43,400	0.676	C
Spence Rd to Chualar Rd	4-Lane Uninterrupted Flow Highway	64,200	45,000	0.701	D
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	64,200	42,900	0.668	C
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	64,200	42,700	0.665	C
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	64,200	40,500	0.631	C
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	64,200	41,600	0.648	C
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	64,200	41,800	0.651	C
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	64,200	43,500	0.678	C
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	64,200	44,600	0.695	D
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	64,200	40,800	0.636	C
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	64,200	35,800	0.558	C
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	64,200	27,400	0.427	B
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	64,200	27,800	0.433	B
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	64,200	33,400	0.520	C
Jolon Rd to Broadway St	4-Lane Freeway	69,100	32,100	0.465	B
Broadway St to S 1st St	4-Lane Freeway	69,100	24,000	0.347	B
S 1st St to Wildhorse Rd	4-Lane Freeway	69,100	17,900	0.259	A
Wildhorse Rd to SR-198	4-Lane Freeway	69,100	17,000	0.246	A
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	69,100	15,900	0.230	A
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	69,100	14,700	0.213	A
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	69,100	15,200	0.220	A
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	69,100	15,700	0.227	A

TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Alvarado Rd to Jolon Rd	4-Lane Freeway	69,100	15,600	0.226	A
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	69,100	19,800	0.287	A
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	69,100	19,900	0.288	A
Bradley Rd to San Luis Obispo County	4-Lane Freeway	69,100	19,900	0.288	A
SR-1					
Santa Cruz County to Salinas Rd	3-Lane Uninterrupted Flow Highway	44,550	35,000	0.786	D
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	24,900	39,400	1.582	F
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	24,900	42,400	1.703	F
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	24,900	38,100	1.530	F
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	24,900	36,300	1.458	F
SR-183 to SR-156	4-Lane Freeway	69,100	21,500	0.311	A
SR-156 to Del Monte Blvd	4-Lane Freeway	69,100	50,100	0.725	C
Del Monte Blvd to Reservation Rd	4-Lane Freeway	69,100	52,100	0.754	C
Reservation Rd to Del Monte Blvd	4-Lane Freeway	69,100	52,100	0.754	C
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	106,700	65,400	0.613	C
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	106,700	84,800	0.795	D
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	84,300	0.790	D
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	69,100	71,000	1.027	F
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	75,600	1.094	F
Del Monte Ave to N Fremont St	4-Lane Freeway	69,100	61,800	0.894	D
N Fremont St to Aguajito Rd	4-Lane Freeway	69,100	99,700	1.443	F
Aguajito Rd to Munras Ave	4-Lane Freeway	69,100	60,300	0.873	D
Munras Ave to Holman Hwy	4-Lane Freeway	69,100	52,600	0.761	D
Holman Hwy to Carpenter St	4-Lane Freeway	69,100	65,300	0.945	E
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	16,300	9,000	0.552	C
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	16,300	6,400	0.393	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	24,900	6,200	0.249	B
Mal Paso Rd to Old Coast Rd	2-Lane Uninterrupted Flow Highway	24,900	4,000	0.161	B
Old Coast Rd to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	24,900	4,000	0.161	B
Partington Ridge Rd to Willow Creek-los	2-Lane Uninterrupted Flow Highway	24,900	2,700	0.108	B
Willow Creek-los Burros Rd to San Luis	2-Lane Uninterrupted Flow Highway	24,900	2,600	0.104	B
SR-25					
San Benito County to SR-198	2-Lane Class I Two-Way State Arterial	16,300	300	0.018	B
SR-68 (Holman Highway)					
Forest Ave to 17 Mile Dr	2-Lane Class I Two-Way State Arterial	16,300	25,300	1.552	F
17 Mile Dr to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	16,300	28,700	1.761	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	16,300	28,700	1.761	F
CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	16,300	28,400	1.742	F
SR-68 (Monterey Salinas Highway)					
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	15,300	22,400	1.464	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	15,300	21,900	1.431	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	16,300	21,700	1.331	F
Bit Rd to Laureles Grade Rd	2-Lane Class I Two-Way State Arterial	16,300	21,300	1.307	F
Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	25,300	1.552	F
Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	16,300	26,700	1.638	F
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	64,200	30,800	0.480	C
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	64,200	27,700	0.431	B

TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	34,200	29,000	0.848	C
SR-146					
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	14,600	7,500	0.514	D
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	14,600	7,500	0.514	D
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	14,600	3,300	0.226	C
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III Two-Way State Arterial	14,600	3,400	0.233	C
Stonewall Canyon Rd to San Benito Court	2-Lane Class III Two-Way State Arterial	14,600	500	0.034	C
SR-156					
SR-1 to SR-183	4-Lane Freeway	69,100	26,900	0.389	B
SR-183 to Castroville Blvd	4-Lane Uninterrupted Flow Highway	64,200	30,300	0.472	C
Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	16,300	31,600	1.939	F
SR-183					
SR-1 to Preston St	2-Lane Class II Two-Way State Arterial	15,300	10,600	0.693	D
Preston St to SR-156	2-Lane Class I Two-Way State Arterial	16,300	11,500	0.706	C
SR-156 to Blackie Rd	2-Lane Class I Two-Way State Arterial	16,300	19,600	1.202	F
Blackie Rd to Espinosa Rd	2-Lane Class I Two-Way State Arterial	16,300	17,100	1.049	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	16,300	16,100	0.988	E
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	34,200	15,700	0.459	B
SR-198					
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	14,600	4,800	0.329	C
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	14,600	2,100	0.144	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	14,600	2,100	0.144	C
SR-25 to Fresno County	2-Lane Class III Two-Way State Arterial	14,600	1,000	0.068	C
SR-218 (Canyon del Rey Blvd)					
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	30,800	22,800	0.740	D
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	30,800	22,100	0.718	D
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	14,600	16,500	1.130	F
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	14,600	17,000	1.164	F
Foam St					
David Ave to Prescott Ave	2-Lane Other Roadway	12,000	8,300	0.692	D
Prescott Ave to Drake Ave	2-Lane Other Roadway	12,000	27,100	2.258	F
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	12,000	28,700	2.392	F
Lighthouse Ave					
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	30,900	2,600	0.084	C
17 Mile Dr to Pacific Ave	4-Lane Major Roadway	30,900	7,500	0.243	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	30,900	14,400	0.466	C
Forest Ave to David Ave	4-Lane Major Roadway	30,900	10,500	0.340	C
David Ave to Prescott Ave	4-Lane Major Roadway	30,900	21,400	0.693	D
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	30,900	32,300	1.045	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	30,900	36,700	1.188	F
Pacific St to Washington St	4-Lane Major Roadway	30,900	32,800	1.061	F
Del Monte Ave					
Washington St to Camino Aguajito	4-Lane Major Roadway	30,900	40,300	1.304	F
Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	30,900	39,800	1.288	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	30,900	43,900	1.421	F
Fremont St					
Abrego St to Camino Aguajito	4-Lane Major Roadway	30,900	32,500	1.052	F

TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Munras Ave/Abrego St					
Fremont St to Soledad Dr	4-Lane Other Roadway	24,000	11,700	0.488	D
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	24,000	32,100	1.338	F
Del Monte Blvd					
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	30,900	31,400	1.016	F
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	30,900	32,400	1.049	F
Broadway Ave to Playa Ave	4-Lane Major Roadway	30,900	11,500	0.372	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	30,900	11,700	0.379	C
Fremont Blvd					
N Del Monte Blvd to SR-1	4-Lane Major Roadway	30,900	27,000	0.874	D
Del Monte Blvd					
SR-1 to Reindollar Ave	4-Lane Major Roadway	30,900	31,800	1.029	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	30,900	56,800	1.838	F
N Fremont St					
SR-1 to Casa Verde Wy	4-Lane Major Roadway	30,900	20,300	0.657	D
Casa Verde Wy to SR-218	4-Lane Major Roadway	30,900	30,300	0.981	E
Sanborn Rd					
US-101 to Abbott St	4-Lane Major Roadway	30,900	30,100	0.974	E
N Main St					
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	46,400	19,300	0.416	C
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	38,650	33,300	0.862	D
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	30,900	28,900	0.935	D
E Boronda Rd					
US-101 to N Main St	6-Lane Major Roadway	46,400	42,300	0.912	D
S Main St					
John St to Romie Ln	4-Lane Other Roadway	24,000	19,100	0.796	D
Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	20,500	0.854	E
John St					
S Main St to Abbott St	4-Lane Major Roadway	30,900	12,400	0.401	C
Abbott St to US-101	4-Lane Major Roadway	30,900	32,900	1.065	F
Market St					
Davis Rd to N Main St	4-Lane Other Roadway	24,000	17,700	0.738	D
Davis Rd					
W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	34,300	1.110	F
SR-183 to W Blanco Rd	2-Lane Major Roadway	14,600	36,800	2.521	F
Blanco Rd					
S Davis Rd to W Alisal St	4-Lane Major Roadway	30,900	21,600	0.699	D
W Alisal St to SR-68	4-Lane Major Roadway	30,900	22,500	0.728	D
SR-68 to Abbott St	4-Lane Major Roadway	30,900	18,500	0.599	D
EXTERNAL ROADWAYS					
Santa Clara County					
US Highway 101					
Cochrane Rd to E Dunne Ave	6-Lane Freeway	106,700	94,100	0.882	D
Masten Ave to Leavesley Rd/SR-152 We	6-Lane Freeway	106,700	91,600	0.858	D
Monterey Rd to SR-25	4-Lane Freeway	69,100	69,600	1.007	F
SR-152					
SR-156 to Merced County	4-Lane Freeway	69,100	43,700	0.632	C

TABLE B
EXISTING PLUS PROJECT 2030 CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Santa Cruz County					
SR-1					
Soquel Ave to 41st Ave	4-Lane Freeway	69,100	76,100	1.101	F
Airport Blvd to SR-152	4-Lane Freeway	69,100	46,600	0.674	C
Harkings Slough Rd to SR-129	4-Lane Freeway	69,100	32,200	0.466	B
SR-129 to Monterey County	4-Lane Freeway	69,100	25,100	0.363	B
SR-17					
Santa Clara County to Granite Creek Rd	4-Lane Uninterrupted Flow Highway	64,200	64,500	1.005	F
SR-129 (Riverside Rd)					
Lakeview Rd to Carlton Rd	2-Lane Class I Two-Way State Arterial	16,300	14,200	0.871	D
San Benito County					
US Highway 101					
Santa Clara County to SR-129	4-Lane Freeway	69,100	58,600	0.848	D
SR-25 (Bolsa Rd)					
Santa Clara County to SR-156	2-Lane Class I Two-Way State Arterial	16,300	17,600	1.080	F
SR-156					
Salinas Rd to Union Rd	2-Lane Class I Two-Way State Arterial	16,300	28,400	1.742	F
San Luis Obispo County					
US Highway 101					
Monterey County to San Miguel Ave	4-Lane Freeway	69,100	21,300	0.308	A

Notes:

Bold and shaded values indicate roadway segments operating at LOS E or F.

- (a) Volumes obtained from AMBAG Travel Forecast Demand Model and calibrated based on existing count data.
- (b) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.
- (c) Level of Service thresholds based on the methodologies described in the 2000 Highway Capacity Manual
- (d) While these roads do not have turn lanes or a median, there are no major conflict points and thus they operate with a higher capacity.

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TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
COUNTY ROADWAYS					
County Road G11 (San Juan Rd)					
Salinas Rd to San Miguel Canyon Rd	4-Lane Major Roadway	30,900	24,700	0.799	D
San Miguel Canyon Rd to Aromas Rd	4-Lane Major Roadway	30,900	15,300	0.495	C
Aromas Rd to Carpenteria Rd	4-Lane Major Roadway	30,900	16,500	0.534	D
Carpenteria Rd to US-101	4-Lane Major Roadway	30,900	12,400	0.401	C
County Road G12 (Salinas Rd/Elkhorn Rd/Hall Rd/San Miguel Canyon Rd)					
Porter Dr to Railroad Ave	4-Lane Major Roadway	30,900	26,600	0.861	D
Railroad Ave to Elkhorn Rd	4-Lane Major Roadway	30,900	29,800	0.964	E
Salinas Rd to Hall Rd	4-Lane Major Roadway	30,900	35,700	1.155	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway	14,600	37,600	2.575	F
Hall Rd to Strawberry Rd	4-Lane Major Roadway	30,900	38,700	1.252	F
Strawberry Rd to Castroville Blvd	4-Lane Major Roadway	30,900	45,100	1.460	F
Castroville Blvd to US-101	4-Lane Major Roadway	30,900	42,100	1.362	F
County Road G13 (Bitterwater Rd)					
King City to San Benito County	2-Lane Major Roadway (d)	14,600	2,700	0.185	C
County Road G14 (Jolon Rd/Interlake Rd)					
US-101 to San Lucas Rd	2-Lane Major Roadway (d)	14,600	15,700	1.075	F
San Lucas Rd to Lockwood	2-Lane Major Roadway (d)	14,600	2,300	0.158	C
Lockwood to San Luis Obispo County	2-Lane Major Roadway (d)	14,600	700	0.048	C
County Road G15 (Metz Rd)					
SR-146 to Elm Ave	2-Lane Major Roadway (d)	14,600	1,500	0.103	C
Elm Ave to Spreckels Rd	2-Lane Major Roadway (d)	14,600	2,500	0.171	C
County Road G16 (Carmel Valley Road/Arroyo Seco Rd/Elm Ave)					
Via Los Tulares to Cachagua Rd	2-Lane Major Roadway (d)	14,600	4,600	0.315	C
Cachagua Rd to Arroyo Seco Rd	2-Lane Major Roadway (d)	14,600	1,400	0.096	C
Carmel Valley Rd to Elm Ave	2-Lane Major Roadway (d)	14,600	1,200	0.082	C
Arroyo Seco Rd to Central Ave	2-Lane Major Roadway (d)	14,600	800	0.055	C
US-101 to Metz Rd	2-Lane Major Roadway (d)	14,600	1,800	0.123	C
County Road G17 (Reservation Rd/River Rd/Ft Romie Rd/Arroyo Seco Rd)					
Blanco Rd to East Garrison Rd	4-Lane Major Roadway	30,900	24,000	0.777	D
East Garrison Rd to Davis Rd	4-Lane Major Roadway	30,900	26,600	0.861	D
Davis Rd to SR-68	4-Lane Major Roadway	30,900	21,300	0.689	D
SR-68 to Las Palmas Rd	4-Lane Major Roadway	30,900	18,800	0.608	D
Las Palmas Rd to Las Palmas Pkwy	4-Lane Major Roadway	30,900	14,900	0.482	C
Las Palmas Pkwy to Pine Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	5,900	0.505	D
Pine Canyon Rd to Chualar River Rd	2-Lane Major Roadway (Undivided)	11,680	5,400	0.462	C
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway (Undivided)	11,680	1,500	0.128	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway (Undivided)	11,680	900	0.077	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway (Undivided)	11,680	3,300	0.283	C
Ft Romie Rd to Elm Ave	2-Lane Major Roadway (Undivided)	11,680	2,900	0.248	C
County Road G18 (Jolon Rd)					
Lockwood to US-101	2-Lane Major Roadway (d)	14,600	1,900	0.130	C
County Road G20 (Laureles Grade Rd)					
SR-68 to Robley Rd	2-Lane Major Roadway (Undivided)	11,680	8,200	0.702	D
Robley Rd to Carmel Valley Rd	2-Lane Major Roadway (Undivided)	11,680	9,200	0.788	D
Abbott St					

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
US-101 to Salinas City Line	3-Lane Other Roadway	18,000	24,300	1.350	F
Alisal Rd					
Salinas City Line to Old Stage Rd	2-Lane Major Roadway (Undivided)	11,680	5,500	0.471	C
Alta St					
Old Stage Rd to Gonzales City Line	2-Lane Major Roadway (Undivided)	11,680	7,600	0.651	D
Aromas Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	7,100	0.608	D
Arroyo Seco Rd					
Fort Romie Rd to US-101	2-Lane Major Roadway (d)	14,600	5,800	0.397	C
Blackie Rd					
SR-183 to Commercial Pkwy E	4-Lane Other Roadway	24,000	12,300	0.513	D
Commercial Pkwy E to US-101	2-Lane Other Roadway (Undivided)	9,600	3,000	0.313	C
Blanco Rd					
Reservation Rd to Cooper Rd	2-Lane Other Roadway (d)	12,000	32,000	2.667	F
Cooper Rd to Armstrong Rd	2-Lane Other Roadway (d)	12,000	30,000	2.500	F
Armstrong Rd to Davis Rd	2-Lane Other Roadway (d)	12,000	31,800	2.650	F
Boronda Rd					
Southern Terminus to Brooks Rd	2-Lane Other Roadway (Undivided)	9,600	2,400	0.250	C
Brooks Rd to Salinas City Line	2-Lane Other Roadway (Undivided)	9,600	2,400	0.250	C
Calle Del Adobe					
Boronda Rd to Post Dr	2-Lane Other Roadway (Undivided)	9,600	3,600	0.375	D
Camino Del Monte					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	7,000	0.729	D
Carmel Rancho Blvd					
Carmel Valley Blvd to Carmel Rancho Ln	4-Lane Other Roadway	24,000	16,300	0.679	D
Carmel Rancho Ln to Rio Rd	4-Lane Other Roadway	24,000	11,500	0.479	D
Carpenter St					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	8,700	0.906	E
Serra Ave to SR-1	2-Lane Other Roadway	12,000	16,600	1.383	F
Carpenteria Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	12,600	1.079	F
Castroville Blvd					
SR-156 to Dolan Rd	2-Lane Major Roadway	14,600	5,600	0.384	C
Dolan Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	5,300	0.454	C
Central Ave					
Elm Ave to US-101	2-Lane Other Roadway (Undivided)	9,600	500	0.052	C
Chualar Rd					
US-101 to Old Stage Rd	2-Lane Other Roadway (d)	12,000	5,500	0.458	D
Chualar River Rd					
River Rd to Foletta Rd	2-Lane Other Roadway (d)	12,000	5,800	0.483	D
Cooper Rd					
Nashua Rd to Blanco Rd	2-Lane Other Roadway (d)	12,000	3,700	0.308	C
Corral De Tierra					
SR-68 to Robley Rd	2-Lane Other Roadway (Undivided)	9,600	9,700	1.010	F
Crazy Horse Canyon Rd					
San Juan Grade Rd to US-101	3-Lane Major Roadway	22,750	24,500	1.077	F
Davis Rd					

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Blanco Rd to Reservation Rd	4-Lane Major Roadway	30,900	22,100	0.715	D
Dolan Rd					
SR-1 to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	4,100	0.351	C
Dunbarton Rd					
SR-101 to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	1,300	0.135	C
Echo Valley Rd					
San Miguel Canyon Rd to US-101	2-Lane Other Roadway (Undivided)	9,600	4,900	0.510	D
Elkhorn Rd					
Hall Rd to Strawberry Rd	2-Lane Other Roadway (Undivided)	9,600	7,500	0.781	D
Espinosa Rd					
SR-183 to US-101	2-Lane Other Roadway	12,000	9,000	0.750	D
Esquiline Rd					
Southbank Rd to Carmel Valley Rd	2-Lane Other Roadway (Undivided)	9,600	4,200	0.438	D
Gonzales River Rd					
River Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	2,300	0.197	C
Grant St					
Payson Rd to Scott St	2-Lane Other Roadway (Undivided)	9,600	20,600	2.146	F
Scott St to Clay St	2-Lane Other Roadway (Undivided)	9,600	22,300	2.323	F
Harkins Rd/Hatton Ave					
Spreckels Blvd to Salinas City Line	2-Lane Major Roadway (Undivided)	11,680	4,100	0.351	C
Harris Rd					
Spreckels Blvd to Abbott St	2-Lane Other Roadway (Undivided)	9,600	14,300	1.490	F
Harrison Rd					
Russell Rd to Martines Rd	2-Lane Other Roadway (Undivided)	9,600	4,700	0.490	D
Martines Rd to Damian Way	2-Lane Other Roadway (Undivided)	9,600	4,300	0.448	D
Hartnell Rd					
SR-101 to Alisal Rd	2-Lane Other Roadway (d)	12,000	5,700	0.475	D
Hebert Rd					
San Juan Grade Rd to Old Stage Rd	4-Lane Other Roadway	24,000	27,400	1.142	F
Hitchcock Rd					
SR-68 to Davis Rd	2-Lane Other Roadway (d)	12,000	3,200	0.267	C
Hunter Ln					
SR-68 to Harkins Rd	2-Lane Other Roadway (d)	12,000	3,400	0.283	C
Lockwood-San Lucas Rd					
US-101 to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	600	0.063	C
Molera Rd					
SR-1 to SR-1 (south of Moss Landing)	2-Lane Other Roadway (d)	12,000	1,300	0.108	C
Monte Rd					
Del Monte Blvd to Nashua Rd	2-Lane Other Roadway (d)	12,000	4,500	0.375	D
Murphy Rd					
San Juan Rd to Santa Cruz County	2-Lane Other Roadway (d)	12,000	5,600	0.467	D
Nashua Rd					
SR-1 to Cooper Rd	2-Lane Other Roadway (d)	12,000	5,100	0.425	D
Ocean Ave					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	13,200	1.375	F
Old Stage Rd					
Hebert Rd to Natividad Rd	4-Lane Major Roadway	30,900	35,000	1.133	F

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Natividad Rd to Williams Rd	2-Lane Major Roadway	14,600	15,500	1.062	F
Williams Rd to Alisal Rd	2-Lane Major Roadway (Undivided)	11,680	4,600	0.394	C
Alisal Rd to Chualar Rd	2-Lane Major Roadway (Undivided)	11,680	6,400	0.548	D
Chualar Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	7,500	0.642	D
Pajaro St					
SR-183 to Geil St	2-Lane Other Roadway (Undivided)	9,600	5,000	0.521	D
Pesante Rd					
SR-101 to End	2-Lane Other Roadway (Undivided)	9,600	5,100	0.531	D
Pine Canyon Rd (King City)					
Pine Meadow Dr to Merritt St	2-Lane Other Roadway	12,000	8,600	0.717	D
Merritt St to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	15,500	1.615	F
Porter Dr					
Salinas Rd to San Juan Rd	4-Lane Other Roadway	24,000	34,200	1.425	F
San Juan Rd to Santa Cruz County	4-Lane Other Roadway	24,000	61,400	2.558	F
Portola Dr (Toro Park)					
Reservation Rd to Creekside Ter	2-Lane Other Roadway (Undivided)	9,600	3,700	0.385	D
Creekside Ter to Anza Dr	2-Lane Other Roadway (Undivided)	9,600	1,500	0.156	C
Anza Dr to Manolete Dr	2-Lane Other Roadway (Undivided)	9,600	5,800	0.604	D
Manolete Dr to Toreador Dr	2-Lane Other Roadway (Undivided)	9,600	3,600	0.375	D
Prunedale North Rd					
SR-156 to San Miguel Canyon	2-Lane Other Roadway (Undivided)	9,600	13,500	1.406	F
Rio Rd					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	16,500	1.719	F
SR-1 to Carmel Rancho Blvd	4-Lane Other Roadway	24,000	15,000	0.625	D
Robinson Canyon Rd					
Carmel Valley Rd to Holt Rd	2-Lane Other Roadway	12,000	4,500	0.375	D
Rogge Rd					
San Juan Grade Rd to Natividad Rd	2-Lane Other Roadway (Undivided)	9,600	9,400	0.979	E
Russell Rd					
SR-101 to San Juan Grade Rd	2-Lane Other Roadway (Undivided)	9,600	12,500	1.302	F
Salinas Rd					
SR-1 to Fruitland Ave	4-Lane Major Roadway	30,900	22,000	0.712	D
Fruitland Ave to Elkhorn Rd	3-Lane Major Roadway	22,750	22,000	0.967	E
San Benancio Rd					
Corral Del Ciello to Harper Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	2,500	0.260	C
Harper Canyon Rd to SR-68	2-Lane Other Roadway (Undivided)	9,600	6,700	0.698	D
San Juan Grade Rd					
Salinas City Line to Russell Rd	4-Lane Major Roadway	30,900	32,200	1.042	F
Russell Rd to Rogge Rd	4-Lane Major Roadway	30,900	32,700	1.058	F
Rogge Rd to Hebert Rd	4-Lane Major Roadway	30,900	6,200	0.201	C
Hebert Rd to Crazy Horse Canyon Rd	4-Lane Major Roadway	30,900	27,600	0.893	D
San Miguel Canyon Rd					
San Juan Rd to Tarpey Rd	2-Lane Other Roadway (Undivided)	9,600	6,600	0.688	D
Tarpey Rd to Hall Rd	2-Lane Other Roadway	12,000	11,800	0.983	E
Serra Ave					
Guadalupe St to Carpenter St	2-Lane Other Roadway (Undivided)	9,600	4,800	0.500	D
Spence Rd					

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
SR-101 to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	3,200	0.333	C
Spreckels Blvd					
SR-68 to Harkins Rd	2-Lane Major Roadway	14,600	12,900	0.884	D
Strawberry Rd					
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	2,100	0.219	C
Tarpey Rd					
San Miguel Canyon Rd to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	7,000	0.729	D
Vierra Canyon Rd					
SR-156/SR-101 to Oak Rd	2-Lane Other Roadway	12,000	2,900	0.242	C
Oak Rd to End	2-Lane Other Roadway (Undivided)	9,600	3,600	0.375	D
REGIONAL ROADWAYS					
US Highway 101					
San Benito County to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	68,500	1.067	F
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	64,900	1.011	F
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	64,200	106,400	1.657	F
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	64,200	113,200	1.763	F
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	64,200	112,900	1.759	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	64,200	96,500	1.503	F
E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	104,500	1.512	F
W Laurel Dr to N Main St	4-Lane Freeway	69,100	117,600	1.702	F
N Main St to E Market St	4-Lane Freeway	69,100	109,400	1.583	F
E Market St to John St	4-Lane Freeway	69,100	108,200	1.566	F
John St to S Sanborn Rd	4-Lane Freeway	69,100	92,900	1.344	F
S Sanborn Rd to Airport Blvd	4-Lane Freeway	69,100	77,400	1.120	F
Airport Blvd to Abbott St	4-Lane Freeway	69,100	82,200	1.190	F
Abbott St to Spence Rd	4-Lane Freeway	69,100	51,800	0.750	C
Spence Rd to Chualar Rd	4-Lane Freeway	69,100	59,900	0.867	D
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	64,200	84,200	1.312	F
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	64,200	87,100	1.357	F
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	64,200	78,600	1.224	F
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	64,200	80,500	1.254	F
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	64,200	80,800	1.259	F
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	64,200	77,800	1.212	F
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	64,200	77,400	1.206	F
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	64,200	68,600	1.069	F
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	64,200	57,000	0.888	E
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	64,200	42,500	0.662	C
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	64,200	42,400	0.660	C
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	64,200	46,700	0.727	D
Jolon Rd to Broadway St	4-Lane Freeway	69,100	43,400	0.628	C
Broadway St to S 1st St	4-Lane Freeway	69,100	35,300	0.511	B
S 1st St to Wildhorse Rd	4-Lane Freeway	69,100	28,900	0.418	B
Wildhorse Rd to SR-198	4-Lane Freeway	69,100	27,500	0.398	B
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	69,100	25,700	0.372	B
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	69,100	22,600	0.327	A
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	69,100	22,100	0.320	A
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	69,100	23,500	0.340	B

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Alvarado Rd to Jolon Rd	4-Lane Freeway	69,100	23,400	0.339	A
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	69,100	32,700	0.473	B
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	69,100	32,800	0.475	B
Bradley Rd to San Luis Obispo County	4-Lane Freeway	69,100	32,600	0.472	B
SR-1					
Santa Cruz County to Salinas Rd	3-Lane Uninterrupted Flow Highway	44,550	56,800	1.275	F
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	24,900	53,200	2.137	F
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	24,900	57,500	2.309	F
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	24,900	52,500	2.108	F
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	24,900	48,800	1.960	F
SR-183 to SR-156	4-Lane Freeway	69,100	28,100	0.407	B
SR-156 to Del Monte Blvd	4-Lane Freeway	69,100	50,100	0.725	C
Del Monte Blvd to Reservation Rd	4-Lane Freeway	69,100	52,100	0.754	C
Reservation Rd to Del Monte Blvd	4-Lane Freeway	69,100	52,100	0.754	C
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	106,700	67,800	0.635	C
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	106,700	84,900	0.796	D
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	88,200	0.827	D
Fremont Blvd to Canyon del Rey Blvd	6-Lane Freeway	106,700	79,200	0.742	C
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	79,800	1.155	F
Del Monte Ave to N Fremont St	4-Lane Freeway	69,100	61,800	0.894	D
N Fremont St to Aguajito Rd	4-Lane Freeway	69,100	99,700	1.443	F
Aguajito Rd to Munras Ave	4-Lane Freeway	69,100	63,300	0.916	E
Munras Ave to Holman Hwy	4-Lane Freeway	69,100	52,600	0.761	D
Holman Hwy to Carpenter St	4-Lane Freeway	69,100	68,500	0.991	E
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	16,300	8,900	0.546	C
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	16,300	6,200	0.380	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	24,900	6,200	0.249	B
Mal Paso Rd to Old Coast Rd	2-Lane Uninterrupted Flow Highway	24,900	4,000	0.161	B
Old Coast Rd to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	24,900	4,000	0.161	B
Partington Ridge Rd to Willow Creek-los	2-Lane Uninterrupted Flow Highway	24,900	3,000	0.120	B
Willow Creek-los Burros Rd to San Luis	2-Lane Uninterrupted Flow Highway	24,900	4,000	0.161	B
SR-25					
San Benito County to SR-198	2-Lane Class I Two-Way State Arterial	16,300	500	0.031	B
SR-68 (Holman Highway)					
Forest Ave to 17 Mile Dr	2-Lane Class I Two-Way State Arterial	16,300	27,400	1.681	F
17 Mile Dr to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	16,300	31,100	1.908	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	16,300	31,100	1.908	F
CHOMP Dwy to SR-1	4-Lane Class I Two-Way State Arterial	34,200	30,700	0.898	C
SR-68 (Monterey Salinas Highway)					
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	15,300	23,400	1.529	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	15,300	24,100	1.575	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	16,300	24,600	1.509	F
Bit Rd to Laureles Grade Rd	2-Lane Class I Two-Way State Arterial	16,300	24,700	1.515	F
Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	29,700	1.822	F
Corral de Tierra to Portola Dr	4-Lane Class I Two-Way State Arterial	34,200	32,700	0.956	C
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	64,200	37,800	0.589	C
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	64,200	38,900	0.606	C

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	34,200	35,100	1.026	F
SR-146					
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	14,600	15,300	1.048	F
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	14,600	15,200	1.041	F
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	14,600	9,900	0.678	D
County Road G-15 to Stonewall Canyon	2-Lane Class III Two-Way State Arterial	14,600	3,600	0.247	C
Stonewall Canyon Rd to San Benito Cour	2-Lane Class III Two-Way State Arterial	14,600	700	0.048	C
SR-156					
SR-1 to SR-183	4-Lane Freeway	69,100	26,300	0.381	B
SR-183 to Castroville Blvd	4-Lane Freeway	69,100	30,000	0.434	B
Castroville Blvd to US-101	4-Lane Freeway	69,100	31,400	0.454	B
SR-183					
SR-1 to Preston St	2-Lane Class II Two-Way State Arterial	15,300	11,800	0.771	D
Preston St to SR-156	4-Lane Class I Two-Way State Arterial	34,200	15,500	0.453	B
SR-156 to Blackie Rd	4-Lane Class I Two-Way State Arterial	34,200	22,800	0.667	B
Blackie Rd to Espinosa Rd	2-Lane Class I Two-Way State Arterial	16,300	25,700	1.577	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	16,300	24,600	1.509	F
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	34,200	28,400	0.830	C
SR-198					
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	14,600	5,000	0.342	D
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	14,600	2,100	0.144	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	14,600	2,200	0.151	C
SR-25 to Fresno County	2-Lane Class III Two-Way State Arterial	14,600	900	0.062	C
SR-218 (Canyon del Rey Blvd)					
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	30,800	32,400	1.052	F
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	30,800	29,800	0.968	E
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	14,600	18,900	1.295	F
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	14,600	19,500	1.336	F
Foam St					
David Ave to Prescott Ave	2-Lane One-Way Major Roadway	18,540	11,700	0.631	D
Prescott Ave to Drake Ave	2-Lane One-Way Major Roadway	18,540	32,900	1.775	F
Drake Ave to Lighthouse Ave	2-Lane One-Way Major Roadway	18,540	31,300	1.688	F
Lighthouse Ave					
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	30,900	3,400	0.110	C
17 Mile Dr to Pacific Ave	4-Lane Major Roadway	30,900	8,100	0.262	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	30,900	18,300	0.592	D
Forest Ave to David Ave	4-Lane Major Roadway	30,900	10,600	0.343	C
David Ave to Prescott Ave	2-Lane One-Way Major Roadway	18,540	18,600	1.003	F
Prescott Ave to Private Bolio Rd	2-Lane One-Way Major Roadway	18,540	33,100	1.785	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	30,900	38,700	1.252	F
Pacific St to Washington St	4-Lane Major Roadway	30,900	34,800	1.126	F
Del Monte Ave					
Washington St to Camino Aguajito	5-Lane Major Roadway	38,650	44,900	1.162	F
Camino Aguajito to Casa Verde Wy	5-Lane Major Roadway	38,650	51,400	1.330	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	30,900	57,000	1.845	F
Fremont St					
Abrego St to Camino Aguajito	4-Lane Major Roadway	30,900	36,100	1.168	F

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Munras Ave/Abrego St					
Fremont St to Soledad Dr	4-Lane Other Roadway	24,000	12,500	0.521	D
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	24,000	34,200	1.425	F
Del Monte Blvd					
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	30,900	38,400	1.243	F
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	30,900	35,100	1.136	F
Broadway Ave to Playa Ave	4-Lane Major Roadway	30,900	13,300	0.430	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	30,900	14,600	0.472	C
Fremont Blvd					
N Del Monte Blvd to SR-1	4-Lane Major Roadway	30,900	30,800	0.997	E
Del Monte Blvd					
SR-1 to Reindollar Ave	4-Lane Major Roadway	30,900	44,600	1.443	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	30,900	77,200	2.498	F
N Fremont St					
SR-1 to Casa Verde Wy	4-Lane Major Roadway	30,900	20,500	0.663	D
Casa Verde Wy to SR-218	4-Lane Major Roadway	30,900	32,700	1.058	F
Sanborn Rd					
US-101 to Abbott St	4-Lane Major Roadway	30,900	29,700	0.961	E
N Main St					
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	46,400	25,800	0.556	D
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	38,650	32,800	0.849	D
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	30,900	29,200	0.945	D
E Boronda Rd					
US-101 to N Main St	6-Lane Major Roadway	46,400	79,400	1.711	F
S Main St					
John St to Romie Ln	4-Lane Other Roadway	24,000	17,800	0.742	D
Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	18,600	0.775	D
John St					
S Main St to Abbott St	4-Lane Major Roadway	30,900	12,400	0.401	C
Abbott St to US-101	4-Lane Major Roadway	30,900	33,100	1.071	F
Market St					
Davis Rd to N Main St	4-Lane Other Roadway	24,000	17,100	0.713	D
Davis Rd					
W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	32,800	1.061	F
SR-183 to W Blanco Rd	4-Lane Major Roadway	30,900	23,200	0.751	D
Blanco Rd					
S Davis Rd to W Alisal St	4-Lane Major Roadway	30,900	31,500	1.019	F
W Alisal St to SR-68	4-Lane Major Roadway	30,900	23,400	0.757	D
SR-68 to Abbott St	4-Lane Major Roadway	30,900	28,900	0.935	D
EXTERNAL ROADWAYS					
Santa Clara County					
US Highway 101					
Cochrane Rd to E Dunne Ave	6-Lane Freeway	106,700	221,500	2.076	F
Masten Ave to Leavesley Rd/SR-152 We	6-Lane Freeway	106,700	154,400	1.447	F
Monterey Rd to SR-25	4-Lane Freeway	69,100	115,300	1.669	F
SR-152					
SR-156 to Merced County	4-Lane Freeway	69,100	71,100	1.029	F

TABLE C
2030 CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Santa Cruz County					
SR-1					
Soquel Ave to 41st Ave	4-Lane Freeway	69,100	107,800	1.560	F
Airport Blvd to SR-152	4-Lane Freeway	69,100	89,600	1.297	F
Harkings Slough Rd to SR-129	4-Lane Freeway	69,100	72,000	1.042	F
SR-129 to Monterey County	4-Lane Freeway	69,100	56,300	0.815	D
SR-17					
Santa Clara County to Granite Creek Rd	4-Lane Uninterrupted Flow Highway	64,200	54,500	0.849	D
SR-129 (Riverside Rd)					
Lakeview Rd to Carlton Rd	2-Lane Class I Two-Way State Arterial	16,300	19,400	1.190	F
San Benito County					
US Highway 101					
Santa Clara County to SR-129	4-Lane Freeway	69,100	88,600	1.282	F
SR-25 (Bolsa Rd)					
Santa Clara County to SR-156	2-Lane Class I Two-Way State Arterial	16,300	30,700	1.883	F
SR-156					
Salinas Rd to Union Rd	2-Lane Class I Two-Way State Arterial	16,300	29,100	1.785	F
San Luis Obispo County					
US Highway 101					
Monterey County to San Miguel Ave	4-Lane Freeway	69,100	35,400	0.512	B
Notes:					
Bold and shaded values indicate roadway segments operating at LOS E or F.					
(a) Volumes obtained from AMBAG Travel Forecast Demand Model and calibrated based on existing count data.					
(b) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.					
(c) Level of Service thresholds based on the methodologies described in the 2000 Highway Capacity Manual					
(d) While these roads do not have turn lanes or a median, there are no major conflict points and thus they operate with a higher capacity.					

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TABLE D
EXISTING PLUS PROJECT BUILDOUT CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
COUNTY ROADWAYS					
County Road G11 (San Juan Rd)					
Salinas Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	16,900	1.447	F
San Miguel Canyon Rd to Aromas Rd	2-Lane Major Roadway (Undivided)	11,680	9,400	0.805	D
Aromas Rd to Carpenteria Rd	2-Lane Major Roadway (Undivided)	11,680	13,700	1.173	F
Carpenteria Rd to US-101	2-Lane Major Roadway (Undivided)	11,680	10,500	0.899	D
County Road G12 (Salinas Rd/Elkhorn)					
Porter Dr to Railroad Ave	2-Lane Major Roadway	14,600	22,100	1.514	F
Railroad Ave to Elkhorn Rd	4-Lane Major Roadway	30,900	20,200	0.654	D
Salinas Rd to Hall Rd	2-Lane Major Roadway	14,600	20,700	1.418	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	22,600	1.935	F
Hall Rd to Strawberry Rd	2-Lane Major Roadway (Undivided)	11,680	10,700	0.916	D
Strawberry Rd to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	16,400	1.404	F
Castroville Blvd to US-101	2-Lane Major Roadway	14,600	18,500	1.267	F
County Road G13 (Bitterwater Rd)					
King City to San Benito County	2-Lane Major Roadway (d)	14,600	900	0.062	C
County Road G14 (Jolon Rd/Interlake)					
US-101 to San Lucas Rd	2-Lane Major Roadway (d)	14,600	25,500	1.747	F
San Lucas Rd to Lockwood	2-Lane Major Roadway (d)	14,600	1,800	0.123	C
Lockwood to San Luis Obispo County	2-Lane Major Roadway (d)	14,600	500	0.034	C
County Road G15 (Metz Rd)					
SR-146 to Elm Ave	2-Lane Major Roadway (d)	14,600	1,200	0.082	C
Elm Ave to Spreckels Rd	2-Lane Major Roadway (d)	14,600	1,200	0.082	C
County Road G16 (Carmel Valley Road)					
SR-1 to Carmel Rancho Blvd	4-Lane Major Roadway	30,900	33,500	1.084	F
Carmel Rancho Blvd to Rio Rd	4-Lane Major Roadway	30,900	33,400	1.081	F
Rio Rd to Rancho San Carlos Rd	2-Lane Major Roadway	14,600	27,600	1.890	F
Rancho San Carlos Rd to Valley Greens I	2-Lane Major Roadway (Undivided)	11,680	24,000	2.055	F
Valley Greens Dr to Robinson Canyon Rd	2-Lane Major Roadway	14,600	22,000	1.507	F
Robinson Canyon Rd to Miramonte Rd	2-Lane Major Roadway (Undivided)	11,680	17,200	1.473	F
Miramonte Rd to Laureles Grade	2-Lane Major Roadway (Undivided)	11,680	13,100	1.122	F
Laureles Grade to Ford Rd	2-Lane Major Roadway (Undivided)	11,680	16,700	1.430	F
Ford Rd to Esquiline Rd	2-Lane Major Roadway (Undivided)	11,680	10,300	0.882	D
Esquiline Rd to Holman Rd	2-Lane Major Roadway (Undivided)	11,680	4,100	0.351	C
Holman Rd to Via Los Tulares	2-Lane Major Roadway (Undivided)	11,680	6,400	0.548	D
Via Los Tulares to Cachagua Rd	2-Lane Major Roadway (d)	14,600	6,500	0.445	C
Cachagua Rd to Arroyo Seco Rd	2-Lane Major Roadway (d)	14,600	2,200	0.151	C
Carmel Valley Rd to Elm Ave	2-Lane Major Roadway (d)	14,600	2,000	0.137	C
Arroyo Seco Rd to Central Ave	2-Lane Major Roadway (d)	14,600	1,400	0.096	C
US-101 to Metz Rd	2-Lane Major Roadway (d)	14,600	1,700	0.116	C
County Road G17 (Reservation Rd/Riv					
Blanco Rd to East Garrison Rd	4-Lane Major Roadway	30,900	15,300	0.495	C
East Garrison Rd to Davis Rd	2-Lane Major Roadway (d)	14,600	14,400	0.986	E
Davis Rd to SR-68	2-Lane Major Roadway (Undivided)	11,680	18,400	1.575	F
SR-68 to Las Palmas Rd	4-Lane Major Roadway	30,900	32,200	1.042	F
Las Palmas Rd to Las Palmas Pkwy	2-Lane Major Roadway	14,600	21,900	1.500	F
Las Palmas Pkwy to Pine Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	10,400	0.890	D

TABLE D
EXISTING PLUS PROJECT BUILDOUT CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Pine Canyon Rd to Chualar River Rd	2-Lane Major Roadway (Undivided)	11,680	10,500	0.899	D
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway (Undivided)	11,680	1,900	0.163	C
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway (Undivided)	11,680	1,200	0.103	C
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway (Undivided)	11,680	4,200	0.360	C
Ft Romie Rd to Elm Ave	2-Lane Major Roadway (Undivided)	11,680	2,700	0.231	C
County Road G18 (Jolon Rd)					
Lockwood to US-101	2-Lane Major Roadway (d)	14,600	1,400	0.096	C
County Road G20 (Laureles Grade Rd)					
SR-68 to Robley Rd	2-Lane Major Roadway (Undivided)	11,680	11,700	1.002	F
Robley Rd to Carmel Valley Rd	2-Lane Major Roadway (Undivided)	11,680	10,700	0.916	D
Abbott St					
US-101 to Salinas City Line	3-Lane Other Roadway	18,000	17,100	0.950	E
Alisal Rd					
Salinas City Line to Old Stage Rd	2-Lane Major Roadway (Undivided)	11,680	3,800	0.325	C
Alta St					
Old Stage Rd to Gonzales City Line	2-Lane Major Roadway (Undivided)	11,680	5,400	0.462	C
Aromas Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	3,500	0.300	C
Arroyo Seco Rd					
Fort Romie Rd to US-101	2-Lane Major Roadway (d)	14,600	7,200	0.493	D
Blackie Rd					
SR-183 to Commercial Pkwy E	4-Lane Other Roadway	24,000	12,800	0.533	D
Commercial Pkwy E to US-101	2-Lane Other Roadway (Undivided)	9,600	3,800	0.396	D
Blanco Rd					
Reservation Rd to Cooper Rd	2-Lane Other Roadway (d)	12,000	28,200	2.350	F
Cooper Rd to Armstrong Rd	2-Lane Other Roadway (d)	12,000	28,900	2.408	F
Armstrong Rd to Davis Rd	2-Lane Other Roadway (d)	12,000	31,100	2.592	F
Boronda Rd					
Southern Terminus to Brooks Rd	2-Lane Other Roadway (Undivided)	9,600	6,800	0.708	D
Brooks Rd to Salinas City Line	2-Lane Other Roadway (Undivided)	9,600	1,100	0.115	C
Calle Del Adobe					
Boronda Rd to Post Dr	2-Lane Other Roadway (Undivided)	9,600	10,800	1.125	F
Camino Del Monte					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	14,800	1.542	F
Carmel Rancho Blvd					
Carmel Valley Blvd to Carmel Rancho Ln	4-Lane Other Roadway	24,000	18,200	0.758	D
Carmel Rancho Ln to Rio Rd	4-Lane Other Roadway	24,000	11,400	0.475	D
Carpenter St					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	7,300	0.760	D
Serra Ave to SR-1	2-Lane Other Roadway	12,000	22,700	1.892	F
Carpenteria Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	6,300	0.539	D
Castroville Blvd					
SR-156 to Dolan Rd	2-Lane Major Roadway	14,600	5,100	0.349	C
Dolan Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	4,800	0.411	C
Central Ave					
Elm Ave to US-101	2-Lane Other Roadway (Undivided)	9,600	800	0.083	C

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ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Chualar Rd					
US-101 to Old Stage Rd	2-Lane Other Roadway (d)	12,000	3,900	0.325	C
Chualar River Rd					
River Rd to Foletta Rd	2-Lane Other Roadway (d)	12,000	4,600	0.383	D
Cooper Rd					
Nashua Rd to Blanco Rd	2-Lane Other Roadway (d)	12,000	3,000	0.250	C
Corral De Tierra					
SR-68 to Robley Rd	2-Lane Other Roadway (Undivided)	9,600	7,700	0.802	E
Crazy Horse Canyon Rd					
San Juan Grade Rd to US-101	2-Lane Major Roadway (Undivided)	11,680	14,000	1.199	F
Davis Rd					
Blanco Rd to Reservation Rd	2-Lane Other Roadway (Undivided)	9,600	10,900	1.135	F
Dolan Rd					
SR-1 to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	5,200	0.445	C
Dunbarton Rd					
SR-101 to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	3,100	0.323	C
Echo Valley Rd					
San Miguel Canyon Rd to US-101	2-Lane Other Roadway (Undivided)	9,600	6,000	0.625	D
Elkhorn Rd					
Hall Rd to Strawberry Rd	2-Lane Other Roadway (Undivided)	9,600	2,400	0.250	C
Espinosa Rd					
SR-183 to US-101	2-Lane Other Roadway (Undivided)	9,600	9,400	0.979	E
Esquiline Rd					
Southbank Rd to Carmel Valley Rd	2-Lane Other Roadway (Undivided)	9,600	4,300	0.448	D
Gonzales River Rd					
River Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	2,800	0.240	C
Grant St					
Payson Rd to Scott St	2-Lane Other Roadway (Undivided)	9,600	5,700	0.594	D
Scott St to Clay St	2-Lane Other Roadway (Undivided)	9,600	6,200	0.646	D
Harkins Rd/Hatton Ave					
Spreckels Blvd to Salinas City Line	2-Lane Major Roadway (Undivided)	11,680	4,400	0.377	C
Harris Rd					
Spreckels Blvd to Abbott St	2-Lane Other Roadway (Undivided)	9,600	7,900	0.823	E
Harrison Rd					
Russell Rd to Martines Rd	2-Lane Other Roadway (Undivided)	9,600	3,700	0.385	D
Martines Rd to Damian Way	2-Lane Other Roadway (Undivided)	9,600	4,000	0.417	D
Hartnell Rd					
SR-101 to Alisal Rd	2-Lane Other Roadway (d)	12,000	4,500	0.375	D
Hebert Rd					
San Juan Grade Rd to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	5,000	0.521	D
Hitchcock Rd					
SR-68 to Davis Rd	2-Lane Other Roadway (d)	12,000	3,500	0.292	C
Hunter Ln					
SR-68 to Harkins Rd	2-Lane Other Roadway (d)	12,000	4,300	0.358	C
Lockwood-San Lucas Rd					
US-101 to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	500	0.052	C
Molera Rd					

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ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
SR-1 to SR-1 (south of Moss Landing)	2-Lane Other Roadway (d)	12,000	1,200	0.100	C
Monte Rd					
Del Monte Blvd to Nashua Rd	2-Lane Other Roadway (d)	12,000	4,300	0.358	C
Murphy Rd					
San Juan Rd to Santa Cruz County	2-Lane Other Roadway (d)	12,000	4,700	0.392	D
Nashua Rd					
SR-1 to Cooper Rd	2-Lane Other Roadway (d)	12,000	3,900	0.325	C
Ocean Ave					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	14,400	1.500	F
Old Stage Rd					
Hebert Rd to Natividad Rd	2-Lane Major Roadway (Undivided)	11,680	6,700	0.574	D
Natividad Rd to Williams Rd	2-Lane Major Roadway (Undivided)	11,680	4,400	0.377	C
Williams Rd to Alisal Rd	2-Lane Major Roadway (Undivided)	11,680	4,500	0.385	C
Alisal Rd to Chualar Rd	2-Lane Major Roadway (Undivided)	11,680	4,400	0.377	C
Chualar Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	2,500	0.214	C
Pajaro St					
SR-183 to Geil St	2-Lane Other Roadway (Undivided)	9,600	6,400	0.667	D
Pesante Rd					
SR-101 to End	2-Lane Other Roadway (Undivided)	9,600	5,000	0.521	D
Pine Canyon Rd (King City)					
Pine Meadow Dr to Merritt St	2-Lane Other Roadway	12,000	16,500	1.375	F
Merritt St to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	6,600	0.688	D
Porter Dr					
Salinas Rd to San Juan Rd	4-Lane Other Roadway	24,000	27,400	1.142	F
San Juan Rd to Santa Cruz County	4-Lane Other Roadway	24,000	44,300	1.846	F
Portola Dr (Toro Park)					
Reservation Rd to Creekside Ter	2-Lane Other Roadway (Undivided)	9,600	7,100	0.740	D
Creekside Ter to Anza Dr	2-Lane Other Roadway (Undivided)	9,600	2,900	0.302	C
Anza Dr to Manolete Dr	2-Lane Other Roadway (Undivided)	9,600	5,100	0.531	D
Manolete Dr to Toreador Dr	2-Lane Other Roadway (Undivided)	9,600	4,200	0.438	D
Prunedale North Rd					
SR-156 to San Miguel Canyon	2-Lane Other Roadway (Undivided)	9,600	5,100	0.531	D
Rio Rd					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	13,200	1.375	F
SR-1 to Carmel Rancho Blvd	4-Lane Other Roadway	24,000	16,300	0.679	D
Robinson Canyon Rd					
Carmel Valley Rd to Holt Rd	2-Lane Other Roadway	12,000	5,500	0.458	D
Rogge Rd					
San Juan Grade Rd to Natividad Rd	2-Lane Other Roadway (Undivided)	9,600	7,500	0.781	D
Russell Rd					
SR-101 to San Juan Grade Rd	2-Lane Other Roadway (Undivided)	9,600	10,000	1.042	F
Salinas Rd					
SR-1 to Fruitland Ave	2-Lane Major Roadway (Undivided)	11,680	11,900	1.019	F
Fruitland Ave to Elkhorn Rd	3-Lane Major Roadway	22,750	11,900	0.523	D
San Benancio Rd					
Corral Del Ciello to Harper Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	4,300	0.448	D
Harper Canyon Rd to SR-68	2-Lane Other Roadway (Undivided)	9,600	11,300	1.177	F

TABLE D
EXISTING PLUS PROJECT BUILDOUT CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
San Juan Grade Rd					
Salinas City Line to Russell Rd	2-Lane Major Roadway (Undivided)	11,680	16,100	1.378	F
Russell Rd to Rogge Rd	2-Lane Major Roadway	14,600	20,000	1.370	F
Rogge Rd to Hebert Rd	2-Lane Major Roadway (Undivided)	11,680	6,700	0.574	D
Hebert Rd to Crazy Horse Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	14,700	1.259	F
San Miguel Canyon Rd					
San Juan Rd to Tarpey Rd	2-Lane Other Roadway (Undivided)	9,600	2,900	0.302	C
Tarpey Rd to Hall Rd	2-Lane Other Roadway	12,000	8,000	0.667	D
Serra Ave					
Guadalupe St to Carpenter St	2-Lane Other Roadway (Undivided)	9,600	5,600	0.583	D
Spence Rd					
SR-101 to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	5,700	0.594	D
Spreckels Blvd					
SR-68 to Harkins Rd	2-Lane Major Roadway	14,600	7,300	0.500	D
Strawberry Rd					
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	2,300	0.240	C
Tarpey Rd					
San Miguel Canyon Rd to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	6,400	0.667	D
Vierra Canyon Rd					
SR-156/SR-101 to Oak Rd	2-Lane Other Roadway	12,000	3,100	0.258	C
Oak Rd to End	2-Lane Other Roadway (Undivided)	9,600	4,200	0.438	D
REGIONAL ROADWAYS					
US Highway 101					
San Benito County to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	72,900	1.136	F
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	69,100	1.076	F
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	64,200	100,600	1.567	F
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	64,200	77,200	1.202	F
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	64,200	77,200	1.202	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	64,200	76,700	1.195	F
E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	85,900	1.243	F
W Laurel Dr to N Main St	4-Lane Freeway	69,100	85,300	1.234	F
N Main St to E Market St	4-Lane Freeway	69,100	88,100	1.275	F
E Market St to John St	4-Lane Freeway	69,100	83,700	1.211	F
John St to S Sanborn Rd	4-Lane Freeway	69,100	67,400	0.975	E
S Sanborn Rd to Airport Blvd	4-Lane Freeway	69,100	57,900	0.838	D
Airport Blvd to Abbott St	4-Lane Freeway	69,100	53,000	0.767	D
Abbott St to Spence Rd	4-Lane Uninterrupted Flow Highway	64,200	46,200	0.720	D
Spence Rd to Chualar Rd	4-Lane Uninterrupted Flow Highway	64,200	50,900	0.793	D
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	64,200	49,200	0.766	D
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	64,200	49,400	0.769	D
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	64,200	47,600	0.741	D
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	64,200	48,400	0.754	D
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	64,200	48,700	0.759	D
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	64,200	52,700	0.821	D
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	64,200	53,100	0.827	D
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	64,200	49,000	0.763	D
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	64,200	42,900	0.668	C

TABLE D
EXISTING PLUS PROJECT BUILDOUT CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	64,200	34,400	0.536	C
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	64,200	34,700	0.540	C
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	64,200	41,500	0.646	C
Jolon Rd to Broadway St	4-Lane Freeway	69,100	39,100	0.566	C
Broadway St to S 1st St	4-Lane Freeway	69,100	28,900	0.418	B
S 1st St to Wildhorse Rd	4-Lane Freeway	69,100	20,900	0.302	A
Wildhorse Rd to SR-198	4-Lane Freeway	69,100	19,700	0.285	A
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	69,100	17,000	0.246	A
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	69,100	15,700	0.227	A
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	69,100	16,200	0.234	A
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	69,100	16,700	0.242	A
Alvarado Rd to Jolon Rd	4-Lane Freeway	69,100	16,600	0.240	A
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	69,100	21,100	0.305	A
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	69,100	21,200	0.307	A
Bradley Rd to San Luis Obispo County	4-Lane Freeway	69,100	21,200	0.307	A
SR-1					
Santa Cruz County to Salinas Rd	3-Lane Uninterrupted Flow Highway	44,550	37,200	0.835	D
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	24,900	41,900	1.683	F
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	24,900	45,100	1.811	F
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	24,900	40,500	1.627	F
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	24,900	38,600	1.550	F
SR-183 to SR-156	4-Lane Freeway	69,100	22,800	0.330	A
SR-156 to Del Monte Blvd	4-Lane Freeway	69,100	53,300	0.771	D
Del Monte Blvd to Reservation Rd	4-Lane Freeway	69,100	55,500	0.803	D
Reservation Rd to Del Monte Blvd	4-Lane Freeway	69,100	55,500	0.803	D
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	106,700	69,600	0.652	C
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	106,700	90,300	0.846	D
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	89,700	0.841	D
Fremont Blvd to Canyon del Rey Blvd	4-Lane Freeway	69,100	75,600	1.094	F
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	80,500	1.165	F
Del Monte Ave to N Fremont St	4-Lane Freeway	69,100	65,800	0.952	E
N Fremont St to Aguajito Rd	4-Lane Freeway	69,100	106,000	1.534	F
Aguajito Rd to Munras Ave	4-Lane Freeway	69,100	64,200	0.929	E
Munras Ave to Holman Hwy	4-Lane Freeway	69,100	56,000	0.810	D
Holman Hwy to Carpenter St	4-Lane Freeway	69,100	74,600	1.080	F
Carpenter St to Ocean Ave	4-Lane Class I Two-Way State Arterial	34,200	63,000	1.842	F
Ocean Ave to Carmel Valley Rd	3-Lane Class I Two-Way State Arterial	25,250	35,900	1.422	F
Carmel Valley Rd to Riley Ranch Rd	2-Lane Class I Two-Way State Arterial	16,300	14,200	0.871	D
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	16,300	9,600	0.589	C
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	16,300	6,800	0.417	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	24,900	6,600	0.265	B
Mal Paso Rd to Old Coast Rd	2-Lane Uninterrupted Flow Highway	24,900	4,200	0.169	B
Old Coast Rd to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	24,900	4,200	0.169	B
Partington Ridge Rd to Willow Creek-los	2-Lane Uninterrupted Flow Highway	24,900	3,300	0.133	B
Willow Creek-los Burros Rd to San Luis	2-Lane Uninterrupted Flow Highway	24,900	2,700	0.108	B
SR-25					
San Benito County to SR-198	2-Lane Class I Two-Way State Arterial	16,300	300	0.018	B

**TABLE D
EXISTING PLUS PROJECT BUILDOUT CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
SR-68 (Holman Highway)					
Forest Ave to 17 Mile Dr	2-Lane Class I Two-Way State Arterial	16,300	26,800	1.644	F
17 Mile Dr to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	16,300	30,600	1.877	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	16,300	30,800	1.890	F
CHOMP Dwy to SR-1	2-Lane Class I Two-Way State Arterial	16,300	30,400	1.865	F
SR-68 (Monterey Salinas Highway)					
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	15,300	25,100	1.641	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	15,300	23,600	1.542	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	16,300	25,100	1.540	F
Bit Rd to Laureles Grade Rd	2-Lane Class I Two-Way State Arterial	16,300	24,800	1.521	F
Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	29,900	1.834	F
Corral de Tierra to Portola Dr	2-Lane Class I Two-Way State Arterial	16,300	31,500	1.933	F
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	64,200	36,900	0.575	C
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	64,200	36,000	0.561	C
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	34,200	38,400	1.123	F
SR-146					
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	14,600	7,500	0.514	D
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	14,600	8,000	0.548	D
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	14,600	3,400	0.233	C
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III Two-Way State Arterial	14,600	3,800	0.260	C
Stonewall Canyon Rd to San Benito Court	2-Lane Class III Two-Way State Arterial	14,600	700	0.048	C
SR-156					
SR-1 to SR-183	4-Lane Freeway	69,100	26,100	0.378	B
SR-183 to Castroville Blvd	4-Lane Uninterrupted Flow Highway	64,200	29,900	0.466	B
Castroville Blvd to US-101	2-Lane Class I Two-Way State Arterial	16,300	30,500	1.871	F
SR-183					
SR-1 to Preston St	2-Lane Class II Two-Way State Arterial	15,300	12,200	0.797	D
Preston St to SR-156	2-Lane Class I Two-Way State Arterial	16,300	14,800	0.908	D
SR-156 to Blackie Rd	2-Lane Class I Two-Way State Arterial	16,300	23,500	1.442	F
Blackie Rd to Espinosa Rd	2-Lane Class I Two-Way State Arterial	16,300	20,100	1.233	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	16,300	19,100	1.172	F
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	34,200	19,200	0.561	B
SR-198					
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	14,600	7,900	0.541	D
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	14,600	3,500	0.240	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	14,600	3,500	0.240	C
SR-25 to Fresno County	2-Lane Class III Two-Way State Arterial	14,600	1,000	0.068	C
SR-218 (Canyon del Rey Blvd)					
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	30,800	22,900	0.744	D
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	30,800	21,300	0.692	D
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	14,600	19,200	1.315	F
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	14,600	20,800	1.425	F
Foam St					
David Ave to Prescott Ave	2-Lane Other Roadway	12,000	9,400	0.783	E
Prescott Ave to Drake Ave	2-Lane Other Roadway	12,000	32,700	2.725	F
Drake Ave to Lighthouse Ave	2-Lane Other Roadway	12,000	34,300	2.858	F
Lighthouse Ave					

TABLE D
EXISTING PLUS PROJECT BUILDOUT CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	30,900	2,600	0.084	C
17 Mile Dr to Pacific Ave	4-Lane Major Roadway	30,900	7,200	0.233	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	30,900	16,300	0.528	C
Forest Ave to David Ave	4-Lane Major Roadway	30,900	9,700	0.314	C
David Ave to Prescott Ave	4-Lane Major Roadway	30,900	19,600	0.634	D
Prescott Ave to Private Bolio Rd	4-Lane Major Roadway	30,900	29,400	0.951	E
Private Bolio Rd to Pacific St	4-Lane Major Roadway	30,900	36,800	1.191	F
Pacific St to Washington St	4-Lane Major Roadway	30,900	32,800	1.061	F
Del Monte Ave					
Washington St to Camino Aguajito	4-Lane Major Roadway	30,900	40,600	1.314	F
Camino Aguajito to Casa Verde Wy	4-Lane Major Roadway	30,900	41,300	1.337	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	30,900	45,400	1.469	F
Fremont St					
Abrego St to Camino Aguajito	4-Lane Major Roadway	30,900	33,600	1.087	F
Munras Ave/Abrego St					
Fremont St to Soledad Dr	4-Lane Other Roadway	24,000	12,700	0.529	D
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	24,000	34,800	1.450	F
Del Monte Blvd					
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	30,900	32,100	1.039	F
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	30,900	32,400	1.049	F
Broadway Ave to Playa Ave	4-Lane Major Roadway	30,900	11,900	0.385	C
Playa Ave to Fremont Blvd	4-Lane Major Roadway	30,900	12,600	0.408	C
Fremont Blvd					
N Del Monte Blvd to SR-1	4-Lane Major Roadway	30,900	28,500	0.922	D
Del Monte Blvd					
SR-1 to Reindollar Ave	4-Lane Major Roadway	30,900	34,400	1.113	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	30,900	62,200	2.013	F
N Fremont St					
SR-1 to Casa Verde Wy	4-Lane Major Roadway	30,900	20,800	0.673	D
Casa Verde Wy to SR-218	4-Lane Major Roadway	30,900	32,900	1.065	F
Sanborn Rd					
US-101 to Abbott St	4-Lane Major Roadway	30,900	30,700	0.994	E
N Main St					
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	46,400	19,700	0.425	C
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	38,650	34,100	0.882	D
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	30,900	29,400	0.951	E
E Boronda Rd					
US-101 to N Main St	6-Lane Major Roadway	46,400	45,000	0.970	E
S Main St					
John St to Romie Ln	4-Lane Other Roadway	24,000	22,800	0.950	E
Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	25,900	1.079	F
John St					
S Main St to Abbott St	4-Lane Major Roadway	30,900	14,100	0.456	C
Abbott St to US-101	4-Lane Major Roadway	30,900	36,400	1.178	F
Market St					
Davis Rd to N Main St	4-Lane Other Roadway	24,000	19,600	0.817	D
Davis Rd					

TABLE D
EXISTING PLUS PROJECT BUILDOUT CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	38,100	1.233	F
SR-183 to W Blanco Rd	2-Lane Major Roadway	14,600	41,900	2.870	F
Blanco Rd					
S Davis Rd to W Alisal St	4-Lane Major Roadway	30,900	27,100	0.877	D
W Alisal St to SR-68	4-Lane Major Roadway	30,900	25,500	0.825	D
SR-68 to Abbott St	4-Lane Major Roadway	30,900	21,300	0.689	D
EXTERNAL ROADWAYS					
Santa Clara County					
US Highway 101					
Cochrane Rd to E Dunne Ave	6-Lane Freeway	106,700	87,500	0.820	D
Masten Ave to Leavesley Rd/SR-152 We	6-Lane Freeway	106,700	87,900	0.824	D
Monterey Rd to SR-25	4-Lane Freeway	69,100	66,600	0.964	E
SR-152					
SR-156 to Merced County	4-Lane Freeway	69,100	43,800	0.634	C
Santa Cruz County					
SR-1					
Soquel Ave to 41st Ave	4-Lane Freeway	69,100	74,000	1.071	F
Airport Blvd to SR-152	4-Lane Freeway	69,100	50,500	0.731	C
Harkings Slough Rd to SR-129	4-Lane Freeway	69,100	37,400	0.541	B
SR-129 to Monterey County	4-Lane Freeway	69,100	29,200	0.423	B
SR-17					
Santa Clara County to Granite Creek Rd	4-Lane Uninterrupted Flow Highway	64,200	60,700	0.945	E
SR-129 (Riverside Rd)					
Lakeview Rd to Carlton Rd	2-Lane Class I Two-Way State Arterial	16,300	15,100	0.926	D
San Benito County					
US Highway 101					
Santa Clara County to SR-129	4-Lane Freeway	69,100	55,900	0.809	D
SR-25 (Bolsa Rd)					
Santa Clara County to SR-156	2-Lane Class I Two-Way State Arterial	16,300	17,100	1.049	F
SR-156					
Salinas Rd to Union Rd	2-Lane Class I Two-Way State Arterial	16,300	28,000	1.718	F
San Luis Obispo County					
US Highway 101					
Monterey County to San Miguel Ave	4-Lane Freeway	69,100	21,700	0.314	A

Notes:

Bold and shaded values indicate roadway segments operating at LOS E or F.

(a) Volumes obtained from AMBAG Travel Forecast Demand Model and calibrated based on existing count data.

(b) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

(c) Level of Service thresholds based on the methodologies described in the 2000 Highway Capacity Manual

(d) While these roads do not have turn lanes or a median, there are no major conflict points and thus they operate with a higher capacity.

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TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
COUNTY ROADWAYS					
County Road G11 (San Juan Rd)					
Salinas Rd to San Miguel Canyon Rd	4-Lane Major Roadway	30,900	35,200	1.139	F
San Miguel Canyon Rd to Aromas Rd	4-Lane Major Roadway	30,900	26,100	0.845	D
Aromas Rd to Carpenteria Rd	4-Lane Major Roadway	30,900	28,400	0.919	D
Carpenteria Rd to US-101	4-Lane Major Roadway	30,900	20,400	0.660	D
County Road G12 (Salinas Rd/Elkhorn)					
Porter Dr to Railroad Ave	4-Lane Major Roadway	30,900	29,100	0.942	D
Railroad Ave to Elkhorn Rd	4-Lane Major Roadway	30,900	30,300	0.981	E
Salinas Rd to Hall Rd	4-Lane Major Roadway	30,900	40,000	1.294	F
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Major Roadway	14,600	43,300	2.966	F
Hall Rd to Strawberry Rd	4-Lane Major Roadway	30,900	40,800	1.320	F
Strawberry Rd to Castroville Blvd	4-Lane Major Roadway	30,900	48,000	1.553	F
Castroville Blvd to US-101	4-Lane Major Roadway	30,900	45,000	1.456	F
County Road G13 (Bitterwater Rd)					
King City to San Benito County	2-Lane Major Roadway (d)	14,600	8,600	0.589	D
County Road G14 (Jolon Rd/Interlake)					
US-101 to San Lucas Rd	2-Lane Major Roadway (d)	14,600	27,500	1.884	F
San Lucas Rd to Lockwood	2-Lane Major Roadway (d)	14,600	2,900	0.199	C
Lockwood to San Luis Obispo County	2-Lane Major Roadway (d)	14,600	900	0.062	C
County Road G15 (Metz Rd)					
SR-146 to Elm Ave	2-Lane Major Roadway (d)	14,600	2,000	0.137	C
Elm Ave to Spreckels Rd	2-Lane Major Roadway (d)	14,600	5,600	0.384	C
County Road G16 (Carmel Valley Road)					
SR-1 to Carmel Rancho Blvd	4-Lane Major Roadway	30,900	40,200	1.301	F
Carmel Rancho Blvd to Rio Rd	4-Lane Major Roadway	30,900	41,800	1.353	F
Rio Rd to Rancho San Carlos Rd	2-Lane Major Roadway	14,600	35,800	2.452	F
Rancho San Carlos Rd to Valley Greens I	2-Lane Major Roadway (Undivided)	11,680	36,600	3.134	F
Valley Greens Dr to Robinson Canyon Rd	2-Lane Major Roadway	14,600	33,200	2.274	F
Robinson Canyon Rd to Miramonte Rd	2-Lane Major Roadway (Undivided)	11,680	27,400	2.346	F
Miramonte Rd to Laureles Grade	2-Lane Major Roadway (Undivided)	11,680	21,600	1.849	F
Laureles Grade to Ford Rd	2-Lane Major Roadway (Undivided)	11,680	22,600	1.935	F
Ford Rd to Esquiline Rd	2-Lane Major Roadway (Undivided)	11,680	13,200	1.130	F
Esquiline Rd to Holman Rd	2-Lane Major Roadway (Undivided)	11,680	6,100	0.522	D
Holman Rd to Via Los Tulares	2-Lane Major Roadway (Undivided)	11,680	10,400	0.890	D
Via Los Tulares to Cachagua Rd	2-Lane Major Roadway (d)	14,600	11,000	0.753	D
Cachagua Rd to Arroyo Seco Rd	2-Lane Major Roadway (d)	14,600	4,800	0.329	C
Carmel Valley Rd to Elm Ave	2-Lane Major Roadway (d)	14,600	4,700	0.322	C
Arroyo Seco Rd to Central Ave	2-Lane Major Roadway (d)	14,600	3,200	0.219	C
US-101 to Metz Rd	2-Lane Major Roadway (d)	14,600	3,500	0.240	C
County Road G17 (Reservation Rd/Riv)					
Blanco Rd to East Garrison Rd	4-Lane Major Roadway	30,900	60,500	1.958	F
East Garrison Rd to Davis Rd	4-Lane Major Roadway (d)	30,900	68,800	2.227	F
Davis Rd to SR-68	4-Lane Major Roadway	30,900	45,400	1.469	F
SR-68 to Las Palmas Rd	4-Lane Major Roadway	30,900	39,500	1.278	F
Las Palmas Rd to Las Palmas Pkwy	4-Lane Major Roadway	30,900	31,300	1.013	F
Las Palmas Pkwy to Pine Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	14,100	1.207	F

TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Pine Canyon Rd to Chualar River Rd	2-Lane Major Roadway (Undivided)	11,680	17,600	1.507	F
Chualar River Rd to Gonzales River Rd	2-Lane Major Roadway (Undivided)	11,680	12,200	1.045	F
Gonzalez River Rd to Foothill Rd	2-Lane Major Roadway (Undivided)	11,680	7,900	0.676	D
Foothill Rd to Arroyo Seco Rd	2-Lane Major Roadway (Undivided)	11,680	14,600	1.250	F
Ft Romie Rd to Elm Ave	2-Lane Major Roadway (Undivided)	11,680	4,500	0.385	C
County Road G18 (Jolon Rd)					
Lockwood to US-101	2-Lane Major Roadway (d)	14,600	2,600	0.178	C
County Road G20 (Laureles Grade Rd)					
SR-68 to Robley Rd	2-Lane Major Roadway (Undivided)	11,680	11,200	0.959	E
Robley Rd to Carmel Valley Rd	2-Lane Major Roadway (Undivided)	11,680	16,000	1.370	F
Abbott St					
US-101 to Salinas City Line	3-Lane Other Roadway	18,000	32,600	1.811	F
Alisal Rd					
Salinas City Line to Old Stage Rd	2-Lane Major Roadway (Undivided)	11,680	8,600	0.736	D
Alta St					
Old Stage Rd to Gonzales City Line	2-Lane Major Roadway (Undivided)	11,680	10,000	0.856	D
Aromas Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	4,000	0.342	C
Arroyo Seco Rd					
Fort Romie Rd to US-101	2-Lane Major Roadway (d)	14,600	22,800	1.562	F
Blackie Rd					
SR-183 to Commercial Pkwy E	4-Lane Other Roadway	24,000	12,700	0.529	D
Commercial Pkwy E to US-101	2-Lane Other Roadway (Undivided)	9,600	4,500	0.469	D
Blanco Rd					
Reservation Rd to Cooper Rd	2-Lane Other Roadway (d)	12,000	40,100	3.342	F
Cooper Rd to Armstrong Rd	2-Lane Other Roadway (d)	12,000	37,500	3.125	F
Armstrong Rd to Davis Rd	2-Lane Other Roadway (d)	12,000	39,900	3.325	F
Boronda Rd					
Southern Terminus to Brooks Rd	2-Lane Other Roadway (Undivided)	9,600	3,300	0.344	C
Brooks Rd to Salinas City Line	2-Lane Other Roadway (Undivided)	9,600	4,000	0.417	D
Calle Del Adobe					
Boronda Rd to Post Dr	2-Lane Other Roadway (Undivided)	9,600	4,800	0.500	D
Camino Del Monte					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	15,400	1.604	F
Carmel Rancho Blvd					
Carmel Valley Blvd to Carmel Rancho Ln	4-Lane Other Roadway	24,000	18,600	0.775	D
Carmel Rancho Ln to Rio Rd	4-Lane Other Roadway	24,000	15,000	0.625	D
Carpenter St					
Carmel City Line to Serra Ave	2-Lane Other Roadway (Undivided)	9,600	14,900	1.552	F
Serra Ave to SR-1	2-Lane Other Roadway	12,000	29,100	2.425	F
Carpenteria Rd					
San Juan Rd to San Benito County	2-Lane Major Roadway (Undivided)	11,680	8,000	0.685	D
Castroville Blvd					
SR-156 to Dolan Rd	2-Lane Major Roadway	14,600	5,500	0.377	C
Dolan Rd to San Miguel Canyon Rd	2-Lane Major Roadway (Undivided)	11,680	4,900	0.420	C
Central Ave					
Elm Ave to US-101	2-Lane Other Roadway (Undivided)	9,600	1,100	0.115	C

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ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Chualar Rd					
US-101 to Old Stage Rd	2-Lane Other Roadway (d)	12,000	19,200	1.600	F
Chualar River Rd					
River Rd to Foletta Rd	2-Lane Other Roadway (d)	12,000	7,600	0.633	D
Cooper Rd					
Nashua Rd to Blanco Rd	2-Lane Other Roadway (d)	12,000	4,900	0.408	D
Corral De Tierra					
SR-68 to Robley Rd	2-Lane Other Roadway (Undivided)	9,600	12,800	1.333	F
Crazy Horse Canyon Rd					
San Juan Grade Rd to US-101	3-Lane Major Roadway	22,750	38,900	1.710	F
Davis Rd					
Blanco Rd to Reservation Rd	4-Lane Major Roadway	30,900	18,000	0.583	D
Dolan Rd					
SR-1 to Castroville Blvd	2-Lane Major Roadway (Undivided)	11,680	5,400	0.462	C
Dunbarton Rd					
SR-101 to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	1,200	0.125	C
Echo Valley Rd					
San Miguel Canyon Rd to US-101	2-Lane Other Roadway (Undivided)	9,600	5,900	0.615	D
Elkhorn Rd					
Hall Rd to Strawberry Rd	2-Lane Other Roadway (Undivided)	9,600	7,200	0.750	D
Espinosa Rd					
SR-183 to US-101	2-Lane Other Roadway	12,000	14,200	1.183	F
Esquiline Rd					
Southbank Rd to Carmel Valley Rd	2-Lane Other Roadway (Undivided)	9,600	4,900	0.510	D
Gonzales River Rd					
River Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	4,600	0.394	C
Grant St					
Payson Rd to Scott St	2-Lane Other Roadway (Undivided)	9,600	9,500	0.990	E
Scott St to Clay St	2-Lane Other Roadway (Undivided)	9,600	10,300	1.073	F
Harkins Rd/Hatton Ave					
Spreckels Blvd to Salinas City Line	2-Lane Major Roadway (Undivided)	11,680	7,200	0.616	D
Harris Rd					
Spreckels Blvd to Abbott St	2-Lane Other Roadway (Undivided)	9,600	20,400	2.125	F
Harrison Rd					
Russell Rd to Martinez Rd	2-Lane Other Roadway (Undivided)	9,600	6,200	0.646	D
Martinez Rd to Damian Way	2-Lane Other Roadway (Undivided)	9,600	6,300	0.656	D
Hartnell Rd					
SR-101 to Alisal Rd	2-Lane Other Roadway (d)	12,000	6,500	0.542	D
Hebert Rd					
San Juan Grade Rd to Old Stage Rd	4-Lane Other Roadway	24,000	8,300	0.346	C
Hitchcock Rd					
SR-68 to Davis Rd	2-Lane Other Roadway (d)	12,000	3,800	0.317	C
Hunter Ln					
SR-68 to Harkins Rd	2-Lane Other Roadway (d)	12,000	6,600	0.550	D
Lockwood-San Lucas Rd					
US-101 to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	900	0.094	C
Molera Rd					

TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
SR-1 to SR-1 (south of Moss Landing)	2-Lane Other Roadway (d)	12,000	1,500	0.125	C
Monte Rd					
Del Monte Blvd to Nashua Rd	2-Lane Other Roadway (d)	12,000	7,000	0.583	D
Murphy Rd					
San Juan Rd to Santa Cruz County	2-Lane Other Roadway (d)	12,000	7,100	0.592	D
Nashua Rd					
SR-1 to Cooper Rd	2-Lane Other Roadway (d)	12,000	17,500	1.458	F
Ocean Ave					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	19,200	2.000	F
Old Stage Rd					
Hebert Rd to Natividad Rd	4-Lane Major Roadway	30,900	54,000	1.748	F
Natividad Rd to Williams Rd	2-Lane Major Roadway	14,600	47,900	3.281	F
Williams Rd to Alisal Rd	2-Lane Major Roadway (Undivided)	11,680	7,000	0.599	D
Alisal Rd to Chualar Rd	2-Lane Major Roadway (Undivided)	11,680	7,300	0.625	D
Chualar Rd to Alta St	2-Lane Major Roadway (Undivided)	11,680	4,100	0.351	C
Pajaro St					
SR-183 to Geil St	2-Lane Other Roadway (Undivided)	9,600	8,200	0.854	E
Pesante Rd					
SR-101 to End	2-Lane Other Roadway (Undivided)	9,600	6,700	0.698	D
Pine Canyon Rd (King City)					
Pine Meadow Dr to Merritt St	2-Lane Other Roadway	12,000	16,600	1.383	F
Merritt St to Jolon Rd	2-Lane Other Roadway (Undivided)	9,600	10,900	1.135	F
Porter Dr					
Salinas Rd to San Juan Rd	4-Lane Other Roadway	24,000	37,000	1.542	F
San Juan Rd to Santa Cruz County	4-Lane Other Roadway	24,000	76,500	3.188	F
Portola Dr (Toro Park)					
Reservation Rd to Creekside Ter	2-Lane Other Roadway (Undivided)	9,600	7,600	0.792	E
Creekside Ter to Anza Dr	2-Lane Other Roadway (Undivided)	9,600	3,100	0.323	C
Anza Dr to Manolete Dr	2-Lane Other Roadway (Undivided)	9,600	8,500	0.885	E
Manolete Dr to Toreador Dr	2-Lane Other Roadway (Undivided)	9,600	6,900	0.719	D
Prunedale North Rd					
SR-156 to San Miguel Canyon	2-Lane Other Roadway (Undivided)	9,600	15,800	1.646	F
Rio Rd					
Carmel City Line to SR-1	2-Lane Other Roadway (Undivided)	9,600	21,800	2.271	F
SR-1 to Carmel Rancho Blvd	4-Lane Other Roadway	24,000	18,100	0.754	D
Robinson Canyon Rd					
Carmel Valley Rd to Holt Rd	2-Lane Other Roadway	12,000	5,600	0.467	D
Rogge Rd					
San Juan Grade Rd to Natividad Rd	2-Lane Other Roadway (Undivided)	9,600	12,400	1.292	F
Russell Rd					
SR-101 to San Juan Grade Rd	2-Lane Other Roadway (Undivided)	9,600	22,900	2.385	F
Salinas Rd					
SR-1 to Fruitland Ave	4-Lane Major Roadway	30,900	26,500	0.858	D
Fruitland Ave to Elkhorn Rd	3-Lane Major Roadway	22,750	26,500	1.165	F
San Benancio Rd					
Corral Del Ciello to Harper Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	4,600	0.479	D
Harper Canyon Rd to SR-68	2-Lane Other Roadway (Undivided)	9,600	12,200	1.271	F

TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
San Juan Grade Rd					
Salinas City Line to Russell Rd	4-Lane Major Roadway	30,900	65,100	2.107	F
Russell Rd to Rogge Rd	4-Lane Major Roadway	30,900	66,400	2.149	F
Rogge Rd to Hebert Rd	4-Lane Major Roadway	30,900	9,800	0.317	C
Hebert Rd to Crazy Horse Canyon Rd	4-Lane Major Roadway	30,900	41,100	1.330	F
San Miguel Canyon Rd					
San Juan Rd to Tarpey Rd	2-Lane Other Roadway (Undivided)	9,600	7,000	0.729	D
Tarpey Rd to Hall Rd	2-Lane Other Roadway	12,000	11,100	0.925	E
Serra Ave					
Guadalupe St to Carpenter St	2-Lane Other Roadway (Undivided)	9,600	6,800	0.708	D
Spence Rd					
SR-101 to Old Stage Rd	2-Lane Other Roadway (Undivided)	9,600	3,700	0.385	D
Spreckels Blvd					
SR-68 to Harkins Rd	2-Lane Major Roadway	14,600	17,700	1.212	F
Strawberry Rd					
Elkhorn Rd to San Miguel Canyon Rd	2-Lane Other Roadway (Undivided)	9,600	2,900	0.302	C
Tarpey Rd					
San Miguel Canyon Rd to San Juan Rd	2-Lane Other Roadway (Undivided)	9,600	6,400	0.667	D
Vierra Canyon Rd					
SR-156/SR-101 to Oak Rd	2-Lane Other Roadway	12,000	3,500	0.292	C
Oak Rd to End	2-Lane Other Roadway (Undivided)	9,600	4,600	0.479	D
REGIONAL ROADWAYS					
US Highway 101					
San Benito County to Crazy Horse Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	72,900	1.136	F
Crazy Horse Canyon Rd to San Miguel Canyon Rd	4-Lane Uninterrupted Flow Highway	64,200	69,100	1.076	F
San Miguel Canyon Rd to SR-156	4-Lane Uninterrupted Flow Highway	64,200	102,500	1.597	F
SR-156 to Pesante Rd	4-Lane Uninterrupted Flow Highway	64,200	128,400	2.000	F
Pesante Rd to Espinosa Rd	4-Lane Uninterrupted Flow Highway	64,200	128,500	2.002	F
Espinosa Rd to E Boronda Rd	4-Lane Uninterrupted Flow Highway	64,200	99,900	1.556	F
E Boronda Rd to W Laurel Dr	4-Lane Freeway	69,100	111,600	1.615	F
W Laurel Dr to N Main St	4-Lane Freeway	69,100	135,900	1.967	F
N Main St to E Market St	4-Lane Freeway	69,100	124,100	1.796	F
E Market St to John St	4-Lane Freeway	69,100	126,500	1.831	F
John St to S Sanborn Rd	4-Lane Freeway	69,100	108,400	1.569	F
S Sanborn Rd to Airport Blvd	4-Lane Freeway	69,100	96,900	1.402	F
Airport Blvd to Abbott St	4-Lane Freeway	69,100	103,300	1.495	F
Abbott St to Spence Rd	4-Lane Freeway	69,100	60,700	0.878	D
Spence Rd to Chualar Rd	4-Lane Freeway	69,100	75,300	1.090	F
Chualar Rd to Old Stage Rd	4-Lane Uninterrupted Flow Highway	64,200	111,000	1.729	F
Old Stage Rd to 5th St	4-Lane Uninterrupted Flow Highway	64,200	105,300	1.640	F
5th St to S Alta St	4-Lane Uninterrupted Flow Highway	64,200	98,300	1.531	F
S Alta St to Camphora Rd	4-Lane Uninterrupted Flow Highway	64,200	101,200	1.576	F
Camphora Rd to Moranda Rd	4-Lane Uninterrupted Flow Highway	64,200	103,100	1.606	F
Moranda Rd to Front St	4-Lane Uninterrupted Flow Highway	64,200	92,600	1.442	F
Front St to Arroyo Seco Rd	4-Lane Uninterrupted Flow Highway	64,200	92,600	1.442	F
Arroyo Seco Rd to El Camino Real	4-Lane Uninterrupted Flow Highway	64,200	84,800	1.321	F
El Camino Real to Oak Ave	4-Lane Uninterrupted Flow Highway	64,200	67,600	1.053	F

**TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE**

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Oak Ave to Patricia Ln	4-Lane Uninterrupted Flow Highway	64,200	48,000	0.748	D
Patricia Ln to Central Ave	4-Lane Uninterrupted Flow Highway	64,200	48,400	0.754	D
Central Ave to Jolon Rd	4-Lane Uninterrupted Flow Highway	64,200	57,800	0.900	E
Jolon Rd to Broadway St	4-Lane Freeway	69,100	54,300	0.786	D
Broadway St to S 1st St	4-Lane Freeway	69,100	42,200	0.611	C
S 1st St to Wildhorse Rd	4-Lane Freeway	69,100	34,800	0.504	B
Wildhorse Rd to SR-198	4-Lane Freeway	69,100	32,900	0.476	B
SR-198 to Lockwood San Lucas Rd	4-Lane Freeway	69,100	28,800	0.417	B
Lockwood San Lucas Rd to Cattlemen Rd	4-Lane Freeway	69,100	24,600	0.356	B
Cattlemen Rd to Los Lobos Rd	4-Lane Freeway	69,100	22,900	0.331	A
Los Lobos Rd to Alvarado Rd	4-Lane Freeway	69,100	24,700	0.357	B
Alvarado Rd to Jolon Rd	4-Lane Freeway	69,100	24,600	0.356	B
Jolon Rd to Bradley Rd (exit 251)	4-Lane Freeway	69,100	36,800	0.533	B
Bradley Rd to Bradley Rd (exit 245)	4-Lane Freeway	69,100	37,000	0.535	B
Bradley Rd to San Luis Obispo County	4-Lane Freeway	69,100	37,700	0.546	B
SR-1					
Santa Cruz County to Salinas Rd	3-Lane Uninterrupted Flow Highway	44,550	61,200	1.374	F
Salinas Rd to Struve Rd	2-Lane Uninterrupted Flow Highway	24,900	50,900	2.044	F
Struve Rd to Dolan Rd	2-Lane Uninterrupted Flow Highway	24,900	55,000	2.209	F
Dolan Rd to Molera Rd	2-Lane Uninterrupted Flow Highway	24,900	50,800	2.040	F
Molera Rd to SR-183	2-Lane Uninterrupted Flow Highway	24,900	48,800	1.960	F
SR-183 to SR-156	4-Lane Freeway	69,100	29,100	0.421	B
SR-156 to Del Monte Blvd	4-Lane Freeway	69,100	57,600	0.834	D
Del Monte Blvd to Reservation Rd	4-Lane Freeway	69,100	64,400	0.932	E
Reservation Rd to Del Monte Blvd	4-Lane Freeway	69,100	66,400	0.961	E
Del Monte Blvd to Imjin Pkwy	6-Lane Freeway	106,700	95,100	0.891	D
Imjin Pkwy to Light Fighter Dr	6-Lane Freeway	106,700	116,700	1.094	F
Light Fighter Dr to Fremont Blvd	6-Lane Freeway	106,700	116,400	1.091	F
Fremont Blvd to Canyon del Rey Blvd	6-Lane Freeway	106,700	101,000	0.947	E
Canyon del Rey Blvd to Del Monte Ave	4-Lane Freeway	69,100	91,900	1.330	F
Del Monte Ave to N Fremont St	4-Lane Freeway	69,100	70,700	1.023	F
N Fremont St to Aguajito Rd	4-Lane Freeway	69,100	106,000	1.534	F
Aguajito Rd to Munras Ave	4-Lane Freeway	69,100	77,000	1.114	F
Munras Ave to Holman Hwy	4-Lane Freeway	69,100	61,900	0.896	D
Holman Hwy to Carpenter St	4-Lane Freeway	69,100	93,000	1.346	F
Carpenter St to Ocean Ave	4-Lane Class I Two-Way State Arterial	34,200	75,500	2.208	F
Ocean Ave to Carmel Valley Rd	3-Lane Class I Two-Way State Arterial	25,250	36,800	1.457	F
Carmel Valley Rd to Riley Ranch Rd	2-Lane Class I Two-Way State Arterial	16,300	15,300	0.939	D
Riley Ranch Rd to Highlands Dr	2-Lane Class I Two-Way State Arterial	16,300	9,500	0.583	C
Highlands Dr to Spindrift Rd	2-Lane Class I Two-Way State Arterial	16,300	6,600	0.405	C
Spindrift Rd to Mal Paso Rd	2-Lane Uninterrupted Flow Highway	24,900	6,600	0.265	B
Mal Paso Rd to Old Coast Rd	2-Lane Uninterrupted Flow Highway	24,900	4,200	0.169	B
Old Coast Rd to Partington Ridge Rd	2-Lane Uninterrupted Flow Highway	24,900	4,200	0.169	B
Partington Ridge Rd to Willow Creek-los	2-Lane Uninterrupted Flow Highway	24,900	4,200	0.169	B
Willow Creek-los Burros Rd to San Luis	2-Lane Uninterrupted Flow Highway	24,900	4,500	0.181	B
SR-25					
San Benito County to SR-198	2-Lane Class I Two-Way State Arterial	16,300	800	0.049	B

TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
SR-68 (Holman Highway)					
Forest Ave to 17 Mile Dr	2-Lane Class I Two-Way State Arterial	16,300	34,100	2.092	F
17 Mile Dr to Skyline Forest Dr	2-Lane Class I Two-Way State Arterial	16,300	39,300	2.411	F
Skyline Forest Dr to CHOMP Dwy	2-Lane Class I Two-Way State Arterial	16,300	39,200	2.405	F
CHOMP Dwy to SR-1	4-Lane Class I Two-Way State Arterial	34,200	40,500	1.184	F
SR-68 (Monterey Salinas Highway)					
SR-1 to Olmsted Rd	2-Lane Class II Two-Way State Arterial	15,300	30,700	2.007	F
Olmsted Rd to Canyon del Rey Blvd	2-Lane Class II Two-Way State Arterial	15,300	33,000	2.157	F
Canyon del Rey Blvd to Bit Rd	2-Lane Class I Two-Way State Arterial	16,300	34,400	2.110	F
Bit Rd to Laureles Grade Rd	2-Lane Class I Two-Way State Arterial	16,300	34,700	2.129	F
Laureles Grade Rd to Corral de Tierra	2-Lane Class I Two-Way State Arterial	16,300	41,600	2.552	F
Corral de Tierra to Portola Dr	4-Lane Class I Two-Way State Arterial	34,200	53,400	1.561	F
Portola Dr to Reservation Rd	4-Lane Uninterrupted Flow Highway	64,200	62,100	0.967	E
Reservation Rd to Spreckels Blvd	4-Lane Uninterrupted Flow Highway	64,200	64,700	1.008	F
Spreckels Blvd to E Blanco Rd	4-Lane Class I Two-Way State Arterial	34,200	61,000	1.784	F
SR-146					
US-101 to East St (on Front St)	2-Lane Class III Two-Way State Arterial	14,600	29,000	1.986	F
Front St to Metz Rd (on East St)	2-Lane Class III Two-Way State Arterial	14,600	14,500	0.993	E
East St to County Road G-15 (on Metz Rd)	2-Lane Class III Two-Way State Arterial	14,600	15,300	1.048	F
County Road G-15 to Stonewall Canyon Rd	2-Lane Class III Two-Way State Arterial	14,600	7,400	0.507	D
Stonewall Canyon Rd to San Benito Court	2-Lane Class III Two-Way State Arterial	14,600	2,000	0.137	C
SR-156					
SR-1 to SR-183	4-Lane Freeway	69,100	33,200	0.480	B
SR-183 to Castroville Blvd	4-Lane Freeway	69,100	37,500	0.543	B
Castroville Blvd to US-101	4-Lane Freeway	69,100	41,500	0.601	C
SR-183					
SR-1 to Preston St	2-Lane Class II Two-Way State Arterial	15,300	14,300	0.935	D
Preston St to SR-156	4-Lane Class I Two-Way State Arterial	34,200	20,900	0.611	B
SR-156 to Blackie Rd	4-Lane Class I Two-Way State Arterial	34,200	28,200	0.825	C
Blackie Rd to Espinosa Rd	2-Lane Class I Two-Way State Arterial	16,300	31,700	1.945	F
Espinosa Rd to Cooper Rd	2-Lane Class I Two-Way State Arterial	16,300	29,800	1.828	F
Cooper Rd to S Davis Rd	4-Lane Class I Two-Way State Arterial	34,200	41,400	1.211	F
SR-198					
US-101 to Cattlemen Rd	2-Lane Class III Two-Way State Arterial	14,600	8,100	0.555	D
Cattlemen Rd to Freeman Flat Rd	2-Lane Class III Two-Way State Arterial	14,600	3,500	0.240	C
Freeman Flat Rd to SR-25	2-Lane Class III Two-Way State Arterial	14,600	3,500	0.240	C
SR-25 to Fresno County	2-Lane Class III Two-Way State Arterial	14,600	900	0.062	C
SR-218 (Canyon del Rey Blvd)					
SR-1 to Del Monte Blvd	4-Lane Class III Two-Way State Arterial	30,800	42,700	1.386	F
Del Monte Blvd to Fremont Blvd	4-Lane Class III Two-Way State Arterial	30,800	33,900	1.101	F
Fremont Blvd to Carlton Dr	2-Lane Class III Two-Way State Arterial	14,600	25,600	1.753	F
Carlton Dr to SR-68	2-Lane Class III Two-Way State Arterial	14,600	26,600	1.822	F
Foam St					
David Ave to Prescott Ave	2-Lane One-Way Major Roadway	18,540	15,500	0.836	D
Prescott Ave to Drake Ave	2-Lane One-Way Major Roadway	18,540	54,600	2.945	F
Drake Ave to Lighthouse Ave	2-Lane One-Way Major Roadway	18,540	53,100	2.864	F
Lighthouse Ave					

TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
Asilomar Ave to 17 Mile Dr	4-Lane Major Roadway	30,900	5,100	0.165	C
17 Mile Dr to Pacific Ave	4-Lane Major Roadway	30,900	10,700	0.346	C
Pacific Ave to Forest Ave	4-Lane Major Roadway	30,900	26,900	0.871	D
Forest Ave to David Ave	4-Lane Major Roadway	30,900	12,200	0.395	C
David Ave to Prescott Ave	2-Lane One-Way Major Roadway	18,540	22,200	1.197	F
Prescott Ave to Private Bolio Rd	2-Lane One-Way Major Roadway	18,540	35,100	1.893	F
Private Bolio Rd to Pacific St	4-Lane Major Roadway	30,900	50,600	1.638	F
Pacific St to Washington St	4-Lane Major Roadway	30,900	50,000	1.618	F
Del Monte Ave					
Washington St to Camino Aguajito	5-Lane Major Roadway	38,650	72,100	1.865	F
Camino Aguajito to Casa Verde Wy	5-Lane Major Roadway	38,650	75,000	1.940	F
Casa Verde Wy to SR-1	4-Lane Major Roadway	30,900	90,600	2.932	F
Fremont St					
Abrego St to Camino Aguajito	4-Lane Major Roadway	30,900	51,200	1.657	F
Munras Ave/Abrego St					
Fremont St to Soledad Dr	4-Lane Other Roadway	24,000	21,200	0.883	E
Soledad Dr to Via Zaragoza	4-Lane Other Roadway	24,000	57,500	2.396	F
Del Monte Blvd					
SR-1 to Canyon del Rey Blvd	4-Lane Major Roadway	30,900	65,500	2.120	F
Canyon del Rey Blvd to Broadway Ave	4-Lane Major Roadway	30,900	55,400	1.793	F
Broadway Ave to Playa Ave	4-Lane Major Roadway	30,900	23,400	0.757	D
Playa Ave to Fremont Blvd	4-Lane Major Roadway	30,900	25,900	0.838	D
Fremont Blvd					
N Del Monte Blvd to SR-1	4-Lane Major Roadway	30,900	50,100	1.621	F
Del Monte Blvd					
SR-1 to Reindollar Ave	4-Lane Major Roadway	30,900	63,800	2.065	F
Reindollar Ave to Reservation Rd	4-Lane Major Roadway	30,900	114,800	3.715	F
N Fremont St					
SR-1 to Casa Verde Wy	4-Lane Major Roadway	30,900	29,500	0.955	E
Casa Verde Wy to SR-218	4-Lane Major Roadway	30,900	66,000	2.136	F
Sanborn Rd					
US-101 to Abbott St	4-Lane Major Roadway	30,900	47,100	1.524	F
N Main St					
E Boronda Rd to San Juan Grade Rd	6-Lane Major Roadway	46,400	40,400	0.871	D
San Juan Grade Rd to W Laurel Dr	5-Lane Major Roadway	38,650	55,000	1.423	F
W Laurel Dr to E Bernal Dr	4-Lane Major Roadway	30,900	46,600	1.508	F
E Boronda Rd					
US-101 to N Main St	6-Lane Major Roadway	46,400	124,900	2.692	F
S Main St					
John St to Romie Ln	4-Lane Other Roadway	24,000	28,200	1.175	F
Romie Ln to E Blanco Rd	4-Lane Other Roadway	24,000	29,800	1.242	F
John St					
S Main St to Abbott St	4-Lane Major Roadway	30,900	17,400	0.563	D
Abbott St to US-101	4-Lane Major Roadway	30,900	45,400	1.469	F
Market St					
Davis Rd to N Main St	4-Lane Other Roadway	24,000	27,600	1.150	F
Davis Rd					

TABLE E
BUILDOUT CUMULATIVE CONDITIONS
ROADWAY SEGMENT LEVEL OF SERVICE

ROADWAY SEGMENT	ROADWAY CLASSIFICATION	LOS E CAPACITY	FORECAST ADT (a)	V/C RATIO (b)	LOS (c)
W Laurel Dr to SR-183	4-Lane Major Roadway	30,900	47,600	1.540	F
SR-183 to W Blanco Rd	4-Lane Major Roadway	30,900	24,600	0.796	D
Blanco Rd					
S Davis Rd to W Alisal St	4-Lane Major Roadway	30,900	61,700	1.997	F
W Alisal St to SR-68	4-Lane Major Roadway	30,900	40,000	1.294	F
SR-68 to Abbott St	4-Lane Major Roadway	30,900	51,700	1.673	F
EXTERNAL ROADWAYS					
Santa Clara County					
US Highway 101					
Cochrane Rd to E Dunne Ave	6-Lane Freeway	106,700	172,600	1.618	F
Masten Ave to Leavesley Rd/SR-152 We	6-Lane Freeway	106,700	139,200	1.305	F
Monterey Rd to SR-25	4-Lane Freeway	69,100	102,600	1.485	F
SR-152					
SR-156 to Merced County	4-Lane Freeway	69,100	81,300	1.177	F
Santa Cruz County					
SR-1					
Soquel Ave to 41st Ave	4-Lane Freeway	69,100	109,600	1.586	F
Airport Blvd to SR-152	4-Lane Freeway	69,100	96,200	1.392	F
Harkings Slough Rd to SR-129	4-Lane Freeway	69,100	80,900	1.171	F
SR-129 to Monterey County	4-Lane Freeway	69,100	60,700	0.878	D
SR-17					
Santa Clara County to Granite Creek Rd	4-Lane Uninterrupted Flow Highway	64,200	43,000	0.670	C
SR-129 (Riverside Rd)					
Lakeview Rd to Carlton Rd	2-Lane Class I Two-Way State Arterial	16,300	15,600	0.957	E
San Benito County					
US Highway 101					
Santa Clara County to SR-129	4-Lane Freeway	69,100	70,400	1.019	F
SR-25 (Bolsa Rd)					
Santa Clara County to SR-156	2-Lane Class I Two-Way State Arterial	16,300	33,800	2.074	F
SR-156					
Salinas Rd to Union Rd	2-Lane Class I Two-Way State Arterial	16,300	32,400	1.988	F
San Luis Obispo County					
US Highway 101					
Monterey County to San Miguel Ave	4-Lane Freeway	69,100	40,400	0.585	C

Notes:

Bold and shaded values indicate roadway segments operating at LOS E or F.

(a) Volumes obtained from AMBAG Travel Forecast Demand Model and calibrated based on existing count data.

(b) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

(c) Level of Service thresholds based on the methodologies described in the 2000 Highway Capacity Manual

(d) While these roads do not have turn lanes or a median, there are no major conflict points and thus they operate with a higher capacity.

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