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Draft Environmental Impact Report

Volume 1, Section 1

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## 2007 Monterey County General Plan

Draft Environmental Impact Report

**Volume 1**

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Prepared for:

Monterey County  
Resource Management Agency Planning Department  
168 West Alisal Street, 2nd Floor  
Salinas, California 93901

Prepared by:

ICF Jones & Stokes  
630 K Street, Suite 400  
Sacramento, California 95814

**ICF** Jones &  
Stokes  
an ICF International Company

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- 4.14.4 Scenic Highway Corridors and Visual Sensitivity – Greater Monterey Peninsula
- 4.14.5 Scenic Highway Corridors and Visual Sensitivity – North County
- 4.14.6 Scenic Highway Corridors and Visual Sensitivity – Toro Area

## **1.1 Purpose**

This environmental impact report (EIR) (State Clearinghouse No. 2007121001) has been prepared to evaluate and disclose the significant environmental impacts associated with implementation of the proposed 2007 Monterey County General Plan (2007 General Plan). This is an update of the County of Monterey's (County's) existing general plan for the unincorporated, non-coastal portion of the County. Impacts are evaluated on the basis of the 2007 General Plan's 2030 planning horizon, as well as its full buildout in 2092. A copy of the 2007 General Plan is located on the accompanying CD at the end of this EIR.

This EIR has been prepared in accordance with California Environmental Quality Act (CEQA), California Resources Code Section 21000 et seq.; the Guidelines for the California Environmental Quality Act (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the County of Monterey. Accordingly, it discusses the existing physical and regulatory setting, describes the 2007 General Plan, and examines the project's potential to result in significant effects on resources. In addition to disclosing significant environmental impacts, the EIR also proposes mitigation measures, where feasible, to minimize or otherwise avoid significant environmental impacts and reviews five alternatives to the 2007 General Plan.

The purpose of this EIR is to inform County of Monterey decision-makers, representatives of other affected/responsible agencies, the public, and other interested parties of the potential environmental effects that may be associated with the 2007 General Plan. As authorized under CEQA Guidelines Section 15146, the project's impacts are analyzed on a general scale, in keeping with the broad level of detail found in the 2007 General Plan itself. Accordingly, the reader should not expect to find parcel-specific analyses here.

## **1.2 Project Summary**

The proposed project consists of a comprehensive update of the existing 1982 County General Plan. Monterey County is located on the central California coast and is bounded by the Pacific Ocean (west), Santa Cruz County (north), San Benito, Fresno and Kings Counties (east), and San Luis Obispo County (south); refer to Exhibit 1-1. The proposed 2007 General Plan will serve as a "blueprint"

for growth; that is, it establishes the general pattern of land use and adopts goals and policies to guide the County in future land use decision-making. The goals and policies established by the General Plan address a range of related topics, including, but not limited to, establishing a development pattern centered on cities, Community Areas, and Rural Centers; providing infrastructure to serve new development concurrently with that development; conserving sensitive natural areas; conserving agriculture and the agricultural economy; addressing groundwater overdraft and water supply issues by establishing policies for new wells and restricting development in most areas until a sustainable water supply can be shown to be available; and protecting public health and safety. The Monterey County General Plan was last comprehensively updated in 1982, although it has been amended numerous times over the past 26 years.

The proposed 2007 General Plan is described in Section 3, “Project Description,” of this EIR. In brief, the 2007 General Plan would largely maintain existing land use patterns and concepts established by the existing 1982 General Plan, with an emphasis on directing future urbanization to the cities and designated unincorporated Community Areas and Rural Centers. No changes are proposed to the County’s adopted and certified Local Coastal Programs. Of course, because this is a County general plan it does not apply to any of the cities in Monterey County.

The following Table 1-1 provides a brief summary of the key components of the proposed 2007 General Plan.

**Table 1-1.** Key Components of the 2007 General Plan

Issue Area	2007 General Plan
Elements	Land Use, Circulation, Conservation and Open Space, Safety, Public Services, Agricultural, Area and Master Plans, and Economic Development
Area Plans	North County, Greater Salinas, Central Salinas Valley, Greater Monterey Peninsula, Toro, Cachagua, and South County
Master Plans	Carmel Valley and Fort Ord
Special Treatment Areas	Identifies 17 areas within the Area Plans for further planning study
Community Areas	Boronda, Castroville, Chualar, Fort Ord, and Pajaro
Rural Centers	Bradley, Lockwood, Pine Canyon, Pleyto, River Road, San Ardo, and San Lucas
Affordable Housing Overlay	Three areas where development of high-density, affordable housing is promoted: Mid-Carmel Valley; Highway 68/Monterey Peninsula Airport; and Reservation Road/Highway 68. Community Areas prior to adoption of a Community Plan and Rural Centers prior to the adoption of an Infrastructure and Financing Study are designated as affordable housing overlay districts (AHOs).
Services	Establishes goals and policies requiring the provision of services concurrently with new development in Community Areas, Rural Centers, and for subdivisions
Water Resources	Establishes goals and policies for water conservation, restrains development without a proven sustainable water supply, restricts water well development, and minimizes additional overdraft and seawater intrusion
Routine and Ongoing Agriculture	Exempts a number of “routine and ongoing” agricultural activities from selected policies of the 2007 General Plan Update, not including policies that minimize erosion
Agricultural Wine Corridor Plan	Establishes goals and policies supporting future development of up to 10 full-scale and 40 artisan wineries and related tourist-serving uses along Central/Arroyo Seco/River Road, Metz Road, and Jolon Road
2030 horizon (Unincorporated County only)	135,375 residents 48,670 dwelling units
2092 buildout (Unincorporated County only)	207,424 residents 74,573 dwelling units

## 1.2.1 2007 General Plan Objectives

The proposed 2007 General Plan has the following objectives:

- 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 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 1982 General Plan that reflect the latest legal, statutory, scientific, and technical changes and advances.
- 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 Agricultural Winery Corridor Plan (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.

## 1.3 Summary of Environmental Impacts and Mitigation Measures

The implementation of the 2007 General Plan would result in a number of significant impacts on the environment. At the same time, the 2007 General Plan contains many policies that are intended to minimize or mitigate the potential impacts of its implementation. The analysis in this EIR considered the policies contained in the 2007 General Plan when determining whether the project would result in a significant environmental impact. Where the policies were insufficient to avoid an impact, additional mitigation was identified in the EIR. Table 1-2 briefly summarizes the impacts and mitigation measures that have been identified in the EIR.



**Table 1-2.** Executive Summary Table

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
<b>4.1 LAND USE</b>		
LU-1: Implementation of the 2007 General Plan would potentially result in the physical division of established communities.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
LU-2: Implementation of the 2007 General Plan would potentially result in conflicts with an adopted land use plan, general plan, specific plan, local coastal program, or zoning ordinance adopted for the purpose of avoiding or mitigating an environmental effect.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
LU-3: General Plan implementation would potentially conflict with an existing adopted habitat conservation or natural community conservation plan.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
<b>4.2 AGRICULTURE RESOURCES</b>		
AG-1: Implementation of the 2007 General Plan would result in the conversion of Important Farmland to non-agricultural use.	No feasible mitigation beyond the 2007 General Plan goals and policies is available.	2030—Significant and unavoidable Buildout—Significant and unavoidable
AG-2: Implementation of the 2007 General Plan could result in conflicts with existing zoning for agricultural use or Williamson Act contracts.	No mitigation beyond the 2007 General Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
AG-3: 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	No feasible mitigation beyond the 2007 General Plan goals and policies is available.	2030—Significant and unavoidable Buildout—Significant and

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
of farmland to non-agricultural use.		unavoidable
CUM-1: Agricultural Resources	No mitigation is feasible.	Cumulatively considerable.
<b>4.3 WATER RESOURCES</b>		
WR-1: Residential, commercial, industrial, and public uses consistent with the 2007 General Plan would introduce additional nonpoint source pollutants to downstream surface waters, substantially degrading water quality.	No mitigation beyond the General Plan and Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
WR-2: Land uses and development consistent with the 2007 General Plan would result in increased soil erosion and sedimentation during construction activities, substantially degrading water quality in downstream waterways.	No mitigation beyond the General Plan and Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
WR-3: Agricultural and resource development (i.e., limited timber harvesting and mineral resources extraction) land uses consistent with the 2007 General Plan would increase sediment and nutrients in downstream waterways and violate water quality standards.	<b>BIO-2.1:</b> Stream Setback Ordinance. (see Section 4.9 Biological Resources, below). No additional mitigation beyond the General Plan and Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
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	<b>2030</b> <b>WR-1:</b> Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project The County will revise the draft 2007 General Plan to include the following new policy: PS-3.16 The County will participate in the Water for Monterey County Coalition, or similar regional group, for the purpose of identifying and supporting a variety of new water supply projects, water management programs, and multiple agency agreements that will provide additional domestic water supplies for the Monterey Peninsula and Seaside basin, while continuing to protect the Salinas and Pajaro River groundwater	2030—Significant and unavoidable (in some portions of the County) Buildout—Significant and unavoidable (in some portions of the County)

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>basins from saltwater intrusion. The County’s general objective, while recognizing that timeframes will be dependent upon the dynamics of the regional group, will be to complete the cooperative planning of these water supply alternatives within five years of adoption of the General Plan and to implement the selected alternatives within five years after that time. No additional mitigation measure is available.</p> <p><b>2092</b></p> <p><b>WR-1:</b> Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project. This measure is described above.</p> <p><b>WR-2:</b> Initiate Planning for Additional Supplies to the Salinas Valley</p> <p>The County will revise the draft 2007 General Plan to include the following new policies:</p> <p>PS-3.17 The County will pursue expansion of the SVWP by initiating investigations of the capacity for the Salinas River water storage and distribution system to be further expanded. This shall also include investigations of expanded conjunctive use, use of recycled water for groundwater recharge and seawater intrusion barrier, and changes in operations of the reservoirs. The County’s overall objective is to have an expansion planned and in service by 2030.</p> <p>PS-3.18 The County will convene and coordinate a working group made up of the Salinas Valley cities, the MCWRA, and other affected entities for the purpose of identifying new water supply projects, water management programs, and multiple agency agreements that will provide additional domestic water supplies for the Salinas Valley. These may include, but are not limited to, expanded conjunctive use programs, further improvements to the upriver reservoirs, additional pipelines to provide more efficient distribution, and expanded use of recycled water to reinforce the hydraulic barrier against seawater intrusion. The County’s objective will be to complete the cooperative planning of these water supply alternatives by 2020 and have projects on line by 2030.</p> <p><b>BIO-2.3:</b> 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> <p>No additional mitigation measure is available.</p>	
<p>WR-5: Land uses and development consistent with the 2007 General Plan would increase the</p>	<p>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</p>	<p>2030—Significant and unavoidable</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
demand for water storage, treatment, and conveyance facilities that could have significant secondary impacts on the environment.	existing large-scale water supply projects shows, impacts cannot always be mitigated to a less than significant level.	Buildout— Significant and unavoidable
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.	<p><b>2030</b> <b>WR-1:</b> Support a Regional Solution In Addition to the Coastal Water Project. This measure is described above.</p> <p><b>2092</b> <b>WR-1:</b> Support a Regional Solution In Addition to the Coastal Water Project. This measure is described above.</p> <p><b>WR-2:</b> Initiate Planning for Additional Supplies to the Salinas Valley. This measure is described above.</p>	<p>2030—Significant and unavoidable (in some portions of the County)</p> <p>Buildout— Significant and unavoidable (in some portions of the County).</p>
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.	<p><b>2030</b> <b>WR-1:</b> Support a Regional Solution In Addition to the Coastal Water Project This measure is described above.</p> <p><b>2092</b> <b>WR-1:</b> Support a Regional Solution In Addition to the Coastal Water Project. This measure is described above.</p> <p><b>WR-2:</b> Initiate Planning for Additional Supplies to the Salinas Valley. This measure is described above.</p>	<p>2030—Significant and unavoidable (in some portions of the County)</p> <p>Buildout— Significant and unavoidable (in some portions of the County)</p>
WR-8: Land uses and development consistent with the 2007 General Plan would result in sewer- and septic-related water quality impacts, including those associated with reuse of treated water and migration of septic tank leachfield wastewater effluent to groundwater that would violate water quality standards.	No additional mitigation beyond the General Plan and Area Plan goals and policies is required.	<p>2030—Less than significant</p> <p>Buildout—Less than significant</p>
WR-9: Land uses and development consistent with the 2007 General Plan would result in an increase in the number of private wells in unincorporated areas of the county. Approval	No mitigation beyond the General Plan and Area Plan goals and policies is necessary.	<p>2030—Less than significant</p> <p>Buildout—Less than significant</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
of wells in these areas would result in well interference impacts.		
WR-10: Land use and development consistent with the 2007 General Plan would result in alterations to existing drainage patterns. Such changes would increase erosion, both in overland flow paths and in drainage swales and creeks.	<b>2030</b> <b>BIO-2.1:</b> Stream Setback Ordinance. (see Section 4.9 Biological Resources, below). No additional mitigation beyond the General Plan and Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
WR-11: Land uses and development consistent with the 2007 General Plan would result in increases in storm water runoff and peak discharge. Existing storm drain systems, including urban creeks and rivers, may be incapable of accommodating increased flows, potentially resulting in increased onsite or offsite flooding.	No mitigation beyond the General Plan and Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
WR-12: Land uses and development consistent with the 2007 General Plan would allow continued development in 100-year flood hazard areas.	<b>2030</b> No mitigation beyond the General Plan and Area Plan goals and policies is necessary. <b>2092</b> Extent and locations of future impact are unknown; no mitigation is feasible.	2030—Less than significant Buildout—Significant and unavoidable
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.	<b>2030</b> No mitigation beyond the General Plan and Area Plan goals and policies is necessary. <b>2092</b> Extent and locations of future impact are unknown; no mitigation is feasible.	2030—Less than significant Buildout—Significant and unavoidable
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.	<b>2030</b> No mitigation beyond the General Plan and Area Plan goals and policies is necessary. <b>2092</b> Extent and locations of future impact are unknown; no mitigation is feasible.	2030—Less than significant Buildout—Significant and unavoidable
CUM-2: Water Resources – Surface water	No mitigation beyond 2007 General Plan policies is necessary.	Less than

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
quality:		cumulatively considerable.
CUM-3: Water Resources – Groundwater Quality:	Mitigation measures WR-1 and WR-2.	Cumulatively considerable.
CUM-4: Water Resources – Indirect impacts of water supply projects.	No mitigation is feasible.	Cumulatively considerable.
<b>4.4 GEOLOGY, SOILS, AND SEISMICITY</b>		
GEO-1: Implementation of the 2007 General Plan could expose persons and property to fault rupture hazards.	No mitigation beyond the 2007 General Plan Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
GEO-2: Land uses and development consistent with the 2007 General Plan could expose people or structures to substantial adverse seismic effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	No mitigation beyond the 2007 General Plan Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
GEO-3: Land uses and development consistent with the 2007 General Plan could expose property and structures to the damaging effects of ground subsidence hazards. This kind of geologic hazard can be seismically triggered (e.g., liquefaction), caused by seasonal saturation of the soils and rock materials, or related to grading activities.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
GEO-4: Land uses and development consistent with the 2007 General Plan could expose people and structures to substantial damaging effects of landslides, including the risk of loss, injury, or death from downslope earth movement that may be slow or rapidly occurring. This kind of geologic hazard is	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
commonly caused by earthquakes, seasonal saturation of soils and rock, erosion, or grading activities.	<b>BIO-2.1:</b> Stream Setback Ordinance. (see Section 4.9 Biological Resources, below). No additional mitigation beyond the General Plan and Area Plan goals and policies is necessary.	2030—Less than significant Buildout—Less than significant
GEO-6: Land uses and development consistent with the 2007 General Plan could expose property improvements to potential adverse effects from expansive soils. Expansive soils can damage improvements, especially structures such as residential buildings, small commercial buildings, and pavements.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
GEO-7: Construction of septic tanks or alternative wastewater disposal systems on soils incapable of adequately supporting such systems could damage improvements and adversely affect groundwater resources.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
GEO-8: Land use activities and development consistent with the 2007 General Plan could expose persons and property to tsunami, seiche, or mudflow hazards.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
<b>4.5 MINERAL RESOURCES</b>		
MIN-1: Implementation of the 2007 General Plan would potentially result in the loss of availability of known mineral resources of value to the region and the residents of the state.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
MIN-2: Implementation of the 2007 General	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Plan would potentially result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.		significant Buildout—Less than significant
<b>4.6 TRANSPORTATION</b>		
TRAN-1A: Development allowed under the 2007 General Plan would cause direct impacts on County roadways which would cause roadways to fall below the acceptable LOS standard D.	Impacts are less than significant, therefore no mitigation is necessary.	2030—Less than significant
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 and unavoidable
TRAN 1-C: Growth in land uses allowed under the 2007 General Plan would increase demand for air travel at the County's four airports or increase development within the approach and departure pattern of airports.	Impacts are less than significant, therefore no mitigation is necessary.	2030—Less than significant
TRAN 1-D: Growth in land uses allowed under the 2007 General Plan could result in non-standard or hazardous designs or land uses that are incompatible with public facilities and adjoining land uses.	No additional mitigation measures beyond the 2007 General Plan are necessary.	2030—Less than significant
TRAN 1-E: Growth in land uses allowed under the 2007 General Plan would result in inadequate emergency access.	<b>TRAN-1E:</b> 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	2030—Significant and unavoidable



Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	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.	
TRAN 1-F: Development allowed under the 2007 General Plan could potentially conflict with adopted policies, plans, or programs supporting alternative transportation or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by current pedestrian facilities, bicycle development plans, or long-range transit plans.	No additional mitigation beyond 2007 General Plan policies is necessary.	2030—Less than significant
TRAN-2A: Development allowed under the 2007 General Plan cumulatively with other development to the year 2030 would cause direct impacts on County roadways which would cause roadways to fall below the acceptable LOS standard D.	No additional mitigation beyond 2007 General Plan policies is necessary.	2030—Less than cumulatively considerable
TRAN-2B: Development of the land uses allowed under 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.	<p>No mitigation is feasible for County and Regional roadways outside of the CVMP.</p> <p><b>TRAN-2B:</b> 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"> <li>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.</li> <li>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.</li> <li>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</li> </ul>	2030—Cumulatively considerable (most of county)

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>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.</p> <p>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.</p> <p>e) East of Esquiline Road. Shoulder improvements should be undertaken at the sharper curves. Curves should be examined for spot realignment needs.</p> <p>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 discouraged from using this route.</p> <p>Policy CV-2.12: To accommodate existing and future traffic, the following road improvements are recommended:</p> <p>a) Add a northbound climbing lane between Rio Road and Carmel Valley Road;</p> <p>b) Laureles Grade—undertake shoulder improvements, widening and spot realignment;</p> <p>c) Carmel Valley Road, Robinson Canyon Road to Ford Road—add left turn channelization at all intersections. Shoulder improvements should be undertaken.</p> <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> <p>a) Twice yearly monitoring by Public Works (in June and October) of peak hour traffic at the following 12 locations:</p> <ul style="list-style-type: none"> <li>▪ Carmel Valley Road</li> <li>▪ East of Holman Road</li> <li>▪ Holman Road to Esquiline Road</li> <li>▪ Esquiline Road to Ford Road</li> <li>▪ Ford Road to Laureles Grade</li> <li>▪ Laureles Grade to Robinson Canyon Road</li> <li>▪ Robinson Canyon Road to Schulte Road</li> <li>▪ Schulte Road to Rancho San Carlos Road</li> <li>▪ Rancho San Carlos Road to Rio Road</li> <li>▪ Rio Road to Carmel Rancho Boulevard</li> </ul>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<ul style="list-style-type: none"> <li>▪ Carmel Rancho Boulevard to SR1</li> </ul> <p>Other Locations:</p> <ul style="list-style-type: none"> <li>▪ Carmel Rancho Boulevard between Carmel Valley Road and Rio Road</li> <li>▪ Rio Road between its eastern terminus and SR1</li> </ul> <p>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).</p> <p>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.</p> <p>d) The traffic LOS standards (measured for peak hour conditions) for the CVMP Area shall be as follows:</p> <ul style="list-style-type: none"> <li>▪ Signalized Intersections—LOS of “C” is the acceptable condition.</li> <li>▪ Unsignalized Intersections—LOS of “F” or meeting of any traffic signal warrant are defined as unacceptable conditions</li> <li>▪ Carmel Valley Road Segment Operations: <ul style="list-style-type: none"> <li>□ LOS of “C” for Segments 1, 2, 8, 9, and 10 is an acceptable condition;</li> <li>□ LOS of “D” for Segments 3, 4, 5, 6, and 7 is an acceptable condition.</li> </ul> </li> </ul> <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 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</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>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"> <li>▪ Left-turn channelization on Carmel Valley Road west of Ford Road;</li> <li>▪ Shoulder widening on Carmel Valley Road between Laureles Grade and Ford Road;</li> <li>▪ Paved turnouts, new signage, shoulder improvements, and spot realignments on Laureles Grade;</li> <li>▪ 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);</li> <li>▪ Sight Distance Improvement at Dorris Road;</li> <li>▪ Passing lanes in front of the proposed September Ranch development;</li> <li>▪ Passing lanes opposite Garland Park;</li> <li>▪ Climbing Lane on Laureles Grade;</li> <li>▪ Upgrade all new road improvements within Carmel Valley Road Corridor to Class 2 bike lanes;</li> <li>▪ Passing lane (1/4 mile) between Schulte Road and Robinson Canyon Road; and</li> <li>▪ Passing lane (1/4 mile) between Rancho San Carlos Rd and Schulte Road.</li> </ul> <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>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
TRAN-2C: Growth in land uses allowed under the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, would increase demand for air travel at the County's four airports or increase development within the approach and departure pattern of airports.	No additional mitigation beyond 2007 General Plan policies is necessary.	2030—Less than cumulatively considerable
TRAN-2D: Growth in land uses allowed under the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, could result in non-standard or hazardous designs or land uses that are incompatible with public facilities and adjoining land uses.	No additional mitigation beyond 2007 General Plan policies is necessary.	2030—Less than cumulatively considerable
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.	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-1E (described above) is available.	2030—Cumulatively considerable
TRAN-2F: Development allowed under the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, could potentially conflict with adopted policies, plans, or programs supporting alternative transportation or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by current pedestrian facilities, bicycle development plans, or long-range transit plans.	No additional mitigation beyond 2007 General Plan policies is necessary.	2030—Less than cumulatively considerable
TRAN-3A: Buildout of the 2007 General Plan would cause project-specific impacts on County roadways which would cause roadways to fall below the acceptable LOS standard D.	No mitigation is necessary.	Buildout—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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-2B (described above) is feasible.	Buildout— Significant and unavoidable
TRAN-3C: Buildout of the 2007 General Plan would increase demand for air travel at the County’s four airports or increase development within the approach and departure pattern of airports.	No mitigation is necessary.	Buildout—Less than significant
TRAN-3D: Buildout of the 2007 General Plan would result in non-standard or hazardous designs or land uses that are incompatible with public facilities and adjoining land uses.	No additional mitigation measures beyond the 2007 General Plan are necessary.	Buildout—Less than significant
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 and unavoidable
TRAN-3F: Buildout of the 2007 General Plan would conflict with adopted policies, plans, or programs supporting alternative transportation or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by current pedestrian facilities, bicycle development plans, or long-range transit plans	No mitigation is necessary.	Buildout—Less than significant
TRAN-4A: Buildout of the 2007 General Plan cumulatively with development in incorporated cities and adjacent counties would cause project-specific impacts on County roadways which would cause roadways to fall below the acceptable LOS standard D.	No mitigation is necessary.	Buildout—Less than significant
TRAN-4B: Buildout of the 2007 General Plan	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure	Buildout—

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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.	TRAN-2B (described above) is feasible.	Significant and unavoidable
TRAN-4C: Buildout of the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, would increase demand for air travel at the County’s four airports or increase development within the approach and departure pattern of airports.	No mitigation is necessary.	Buildout—Less than significant
TRAN-4D: Growth in land uses allowed under the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, would result in non-standard or hazardous designs or land uses that are incompatible with public facilities and adjoining land uses.	No additional mitigation measures beyond the 2007 General Plan are necessary.	Buildout—Less than significant
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 and unavoidable
TRAN-4F: Buildout of the 2007 General Plan, cumulatively with development in incorporated cities and adjacent counties, would conflict with adopted policies, plans, or programs supporting alternative transportation or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by current pedestrian facilities, bicycle development plans, or long-range transit plans.	No mitigation is necessary.	Buildout—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>TRAN-5A: Growth in land uses allowed under the 2007 General Plan to the year 2030 would create adverse impacts to County roads within the Agricultural and Winery Corridor.</p>	<p><b>TRAN-5A:</b> The roadway segments exceeding LOS standards are two-lane rural roads that provide left turn lanes at some intersections. These segments include County Road G14 between US 101 and San Lucas Road, and Spreckels Boulevard between SR-68 and Harkins Road. Improvement of these segments would be funded through a combination of project-specific mitigation for individual developments, and through a Capital Improvement and Financing Plan fair-share funding mechanism established for the Corridor by the Public Works Department. These improvements would be implemented when:</p> <ol style="list-style-type: none"> <li>1) A proposed development’s project-specific assessment identifies a direct impact to the facility in terms of either LOS or safety.</li> <li>2) A proposed development gains access from an intersection within the segment.</li> <li>3) A corridor-wide nexus study prepared for the required Capital Improvement and Financing Plan identifies the level of development that can occur before triggering the improvements.</li> </ol> <p>To maintain the rural character of the area, there are no plans to widen these roadways to four lane facilities. Therefore, the capacity of these segments will be increased by:</p> <ol style="list-style-type: none"> <li>1. Providing left turn lanes at intersections without left turn lanes and where the frequency of turning vehicles affects through vehicle movement; and/or</li> <li>2. Increasing the width of the roadway shoulder at intersections to allow vehicles to pass turning vehicles; and/or</li> <li>3. Constructing passing lanes as determined in the Capital Improvement and Financing Plan.</li> </ol>	<p>2030—Less than significant</p>
<p>TRAN-5B: Buildout of the 2007 General Plan would create adverse impacts to County roads within the Agricultural Winery Corridor.</p>	<p>No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-5A (described above) is necessary.</p>	<p>Buildout—Less than significant</p>
<p>CUM-6: Transportation</p>	<p>Related mitigation measures are included in Section 4.6.</p>	<p>Cumulatively considerable</p>
<p><b>4.7 AIR QUALITY</b></p>		
<p>AQ-1: Buildout of the 2007 General Plan would conflict with applicable Air Quality Management Plans and Standards.</p>	<p>No mitigation beyond the 2007 General Plan policies is necessary.</p>	<p>2030—Less than significant Buildout—Less than</p>



Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
AQ-2: Generation of significant quantities of construction-related emissions would result in greater levels of air pollution.	<p><b>2030 and 2092</b></p> <p><b>AQ-1:</b> The County of Monterey will update General Plan policy OS-10.5 as follows: OS-10.5. The County of Monterey will require that future construction in accordance with the 2007 implement MBUAPCD PM<sub>10</sub> control measures.</p> <p><b>AQ-2:</b> Implement MBUAPCD Mitigation Measures for Off-Road Mobile Source and Heavy Duty Equipment Emissions.</p> <p>General Plan Policy OS-10.6 will be revised as follows: The County shall implement MBUAPCD measures to address off-road mobile source and heavy duty equipment emissions as conditions of approval for future development.</p>	<p>significant</p> <p>2030—Less than significant</p> <p>Buildout—Less than significant</p>
AQ-3: Net Change in Ozone Precursor (ROG and NOx) and Particulate Matter.	<p><b>2030 and 2092</b></p> <p><b>CC-2 and CC-3:</b> See the description of these measures under Climate Change, below.</p> <p><b>AQ-3:</b> Implement MBUAPCD Mitigation Measures for Commercial, Industrial, and Institutional Land Uses (MBUAPCD 2008).</p> <p>The following measures will be added to General Plan Policy OS-10.10:</p> <ul style="list-style-type: none"> <li>▪ Provide preferential carpool/vanpool parking spaces</li> <li>▪ Implement a parking surcharge for single occupant vehicles</li> <li>▪ Provide for shuttle/mini bus service</li> <li>▪ Provide bicycle storage/parking facilities and shower/locker facilities</li> <li>▪ Provide onsite child care centers</li> <li>▪ Provide transit design features within the development</li> <li>▪ Develop park-and-ride lots</li> <li>▪ Employ a transportation/rideshare coordinator</li> <li>▪ Implement a rideshare program</li> <li>▪ Provide incentives to employees to rideshare or take public transportation</li> <li>▪ Implement compressed work schedules</li> <li>▪ Implement telecommuting program</li> </ul> <p><b>AQ-4:</b> Implement MBUAPCD Mitigation Measures for Residential Land Uses (MBUAPCD 2008).</p>	<p>2030—Significant and unavoidable</p> <p>Buildout—Significant and unavoidable</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>General Plan Policy OS-10.10 will be revised to include the following measures to address residential land use:</p> <ul style="list-style-type: none"> <li>▪ Provide bicycle paths within major subdivisions that link to an external network</li> <li>▪ Provide pedestrian facilities within major subdivisions</li> </ul> <p><b>AQ-5:</b> Implement MBUAPCD Mitigation Measures for Alternative Fuels (MBUAPCD 2008).</p> <p>The following measures will be added to General Plan Policy OS-10.2 to address alternative fuels:</p> <ul style="list-style-type: none"> <li>▪ Utilize electric fleet vehicles</li> <li>▪ Utilize Ultra Low-Emission fleet vehicles</li> <li>▪ Utilize methanol fleet vehicles</li> <li>▪ Utilize liquid propane gas fleet vehicles</li> <li>▪ Utilize compressed natural gas fleet vehicles</li> </ul>	
<p>AQ-4: Buildout of the 2007 General Plan would expose sensitive receptors to increased diesel exhaust.</p>	<p><b>2030 and 2092</b></p> <p><b>AQ-6:</b></p> <p>The County of Monterey shall require that construction contracts be given to those contractors who show evidence of the use of soot traps, ultra-low sulfur fuels, and other diesel engine emissions upgrades that reduce PM<sub>10</sub> emissions to less than 50% of the statewide PM<sub>10</sub> emissions average for comparable equipment.</p> <p><b>AQ-7:</b></p> <p>The following language should be included in General Plan policy OS-10.10:</p> <ul style="list-style-type: none"> <li>▪ Development of new sensitive land uses (schools, hospitals, facilities for the elderly) should not be located any closer than 500 feet of a freeway carrying more than 100,000 vehicles per day.</li> </ul>	<p>2030—Less than significant</p> <p>Buildout—Less than significant</p>
<p>AQ-5: Future traffic growth would cause increases in CO levels along County roadways.</p>	<p>No mitigation beyond the 2007 General Plan policies is necessary.</p>	<p>2030—Less than significant</p> <p>Buildout—Less than significant</p>
<p>AQ-6: Buildout of the 2007 General Plan would result in the emission of objectionable</p>	<p><b>2030 and 2092</b></p> <p><b>AQ-8:</b></p>	<p>2030—Less than significant</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
odors.	<p>The following measures should be added as General Plan Policy OS-10.12:</p> <p>OS-10.12. Provide for the proper storage and disposal of pomace resulting from winery operations.</p> <ul style="list-style-type: none"> <li>▪ To minimize odors resulting from the storage of pomace, all residue shall be removed from the site or spread in the vineyards as a soil amendment by the winery.</li> <li>▪ To prevent complaints resulting from burning of pomace, burning of pomace as a disposal method shall be prohibited.</li> <li>▪ All wineries shall incorporate best management practices and technologies to prevent fugitive emissions and odors from escaping the winery during production.</li> </ul>	Buildout—Less than significant
CUM 7: Air Quality	No mitigation is feasible.	Cumulatively considerable.
<b>4.8 NOISE</b>		
Impact N-1: Future development activities associated with the 2007 General Plan would result in exposure of noise sensitive land uses (i.e. persons) to traffic noise in excess of County noise standards, or substantial increases in traffic noise.	No mitigation beyond 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than significant
Impact N-2: Development activities associated with implementation of the 2007 General Plan would result in exposure of persons to excessive ground-borne vibration.	No mitigation beyond 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than significant
Impact N-3: Implementation of the 2007 General Plan would create temporary, short-term noise impacts during associated construction activities.	No mitigation beyond 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than significant
Impact N-4: Implementation of the 2007 General Plan would potentially expose people residing or working near an airport to excessive noise levels.	No mitigation beyond 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Impact N-5: Implementation of the 2007 General Plan would expose people residing or working near industrial/agricultural land uses and recreational venues to excessive noise levels.	No mitigation beyond 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than significant
CUM-8: Noise	No mitigation beyond 2007 General Plan policies is necessary.	Less than cumulatively considerable.

**4.9 BIOLOGICAL RESOURCES**

BIO-1: Potential Adverse Impact on Special-Status Species	<p><b>2030</b> <i>All Special Status Species—Program Level</i></p> <p><b>BIO-1.1:</b> Baseline Inventory of Landcover, Special Status Species Habitat, Sensitive Natural Communities, Riparian Habitat, and Wetlands in Monterey County</p> <p>The County shall expand the inventory of listed species suitable and critical habitat required by Policy OS 5.1 and OS-5.2 to include an updated vegetation land cover map, identification of suitable habitat for special status species (as defined in this document), sensitive natural communities, and riparian habitat in Monterey County. The inventory shall include wetlands inventory as feasible based on existing data sources and aerial interpretation. This inventory should be updated at a minimum of ten-year intervals. The inventory can exclude areas that are not under the control of Monterey County (e.g. cities, state and federal lands).</p> <p><b>BIO-1.2:</b> Salinas Valley Conservation Plan to preserve habitat for the San Joaquin kit fox in the Salinas Valley</p> <p>The County shall, in concert with the USFWS, CDFG, cities in the Salinas Valley, and stakeholders develop a conservation plan for the Salinas Valley to provide for the preservation of adequate habitat to sustain the San Joaquin kit fox population. The general focus area of the plan shall be the Salinas Valley south of the community of Chualar. The Conservation Plan, at a minimum, shall be adopted by Monterey County and shall be applied to all discretionary approvals (and their associated CEQA documents) with potential to affect the San Joaquin kit fox within the conservation plan area. The County shall complete the conservation plan within 4 years of General Plan adoption. The conservation plan funding program shall be developed and shall include a mitigation fee program for which development projects will be assessed a fee based on a</p>	2030—Less than significant 2092—Significant and unavoidable
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Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>proportional basis of impact to the San Joaquin kit fox. The compensation plan shall be developed and implemented in coordination with the appropriate state or federal agency and may provide mechanisms to mitigate impacts of an individual project through one or more of the following means: identifying an agency-approved mitigation bank or other compensation site (on- or off-site); and/or preserving habitat; monitoring the compensation site; and funding the management of the compensation site.</p> <p><i>All Special Status Species—Project Level</i></p> <p><b>BIO-1.3:</b> Project Level Biological Survey and Avoidance, Minimization, and Compensation for Impacts to Non-Listed Special-Status Species and Sensitive Natural Communities.</p> <p>The County shall require that any development project that could potentially impact a non-listed special status species or sensitive natural community shall be required to conduct a biological survey of the site. If non-listed special-status species or sensitive natural communities are found on the site, the project biologist shall recommend measures necessary to avoid, minimize, and/or compensate for identified impacts to non-listed special status species and sensitive natural communities. An ordinance establishing minimum standards for a biological report shall be enacted. This policy shall only apply to the following:</p> <ul style="list-style-type: none"> <li>(a) Development in Focused Growth Areas (Community Areas, Rural Centers and Housing Overlays</li> <li>(b) Development requiring a discretionary permit</li> <li>(c) Large scale wineries in the AWCP.</li> </ul> <p><b>2092</b></p> <p><b>BIO-1.1 through BIO-1.3</b> as described above.</p> <p><b>BIO-1.4:</b> 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>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 special status species (both listed and non-listed) and their habitat due to continued urban growth after 2030. The new/expanded growth areas shall be designed to accommodate at least 80% of the</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>BIO-2: Potential Adverse Effects on Sensitive Riparian Habitat, Other Sensitive Natural Communities and on Federal and State Jurisdictional Waters and Wetlands</p>	<p>projected residential and commercial growth in the unincorporated County from 2030 to buildout. This update will also address expansion of agricultural operations and potential impacts to special status species.</p> <p><b>BIO-1.5:</b> By 2030, prepare a Comprehensive County Natural Communities Conservation Plan</p> <p>The County shall complete the preparation of a NCCP for all incorporated areas in Monterey County by no later than January 1, 2030 to address all state and federal listed species and all special-status species with potential to be listed up to buildout of the County. The County shall invite the participation of the incorporated cities, the federal land agencies, Caltrans and other stakeholders. The NCCP shall also cover preservation of sensitive natural communities, riparian habitat, and wetlands, and wildlife movement corridors and include mechanisms including on and off-site mitigation ratios and fee programs for mitigating impacts.</p> <hr/> <p><b>2030</b> <i>Program Level Mitigation Measures</i></p> <p><b>BIO-1.1</b> (as described above under Impacts to Special Status Species)</p> <p><b>BIO-2.1: Stream Setback Ordinance</b></p> <p>The county shall develop and adopt a county-wide Stream Setback Ordinance to establish minimum standards for the avoidance and setbacks for new development relative to streams. The ordinance shall identify standardized inventory methodologies and mapping requirements. A stream classification system shall be identified to distinguish between different stream types (based on hydrology, vegetation, and slope, etc.) and thus allow application of standard setbacks to different stream types. The ordinance shall identify specific setbacks relative to the following rivers and creeks so they can be implemented in the Area Plans: Salinas, Carmel River, Arroyo Seco, Pajaro River, Nacimiento, San Antonio, Gabilan Creek, and Toro Creek. The ordinance may identify specific setbacks for other creeks or may apply generic setbacks based on the stream classification developed for the ordinance. The purpose of the ordinance will be to preserve riparian habitat and reduce sediment and other water quality impacts of new development.</p> <p>The Stream Setback Ordinance shall apply to all discretionary development within the County and to conversion of previously uncultivated agricultural land (as defined in the General Policy Glossary) on normal soil slopes over 15% or on highly erodible soils on</p>	<p>2030—Less than significant</p> <p>2092—Significant and unavoidable.</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>slopes over 10%.</p> <p><b>BIO-2.2—Oak Woodlands Mitigation Program.</b></p> <p>The County shall prepare, adopt and implement a program that allows project to mitigate the loss of oak woodlands. The program would include ratios for replacement, payment of fees to mitigate the loss or direct replacement for the loss of oak woodlands and monitoring for compliance. The program would identify criteria for suitable donor sites. Mitigation for the loss of oak tree woodlands may be either on-site or off-site. The program would allow payment to either a local fund established by the County. Until such time as the County program is implemented, payment of a fee may be made to the State Oak Woodlands Conservation Program. Replacement of oak woodlands shall be on a minimum 1:1 ratio.</p> <p><b>BIO-2.3:</b> Add Considerations Regarding Riparian Habitat and Stream Flows to Criteria for Long-Term Water Supply and Well Assessment.</p> <p>Public Services Policies PS-3.3 and PS-3.4 establish the criteria for proof of a long-term water supply and for evaluation and approval of new wells. The following criteria shall be added to these policies:</p> <p>Policy PS-3.3.i—Effects on instream flows necessary to support riparian vegetation, wetlands, fish, and other aquatic life including migration potential for steelhead.</p> <p>Policy PS-3.4.g—Effects on instream flows necessary to support riparian vegetation, wetlands, fish, and other aquatic life including migration potential for steelhead.</p> <p><i>Project Level Mitigation Measure</i></p> <p><b>BIO-1.3</b> as described above under Impacts to Special Status Species.</p> <p><b>2092</b></p> <p><b>BIO-1.1, 1.2, 1.3, 1.4, and 1.5</b> as described above under Impacts to Special Status Species.</p> <p><b>BIO-2.1, 2.2 and 2.3</b> as described above.</p>	
<p>BIO-3.1: Potential Disturbance and Loss of Native Fish and Wildlife Species Movement Corridors</p>	<p><b>2030</b></p> <p><b>BIO-1.2</b> described under Impacts to Special Status Species.</p> <p><b>BIO-2.1</b> described under Impacts to Sensitive Natural Communities.</p> <p><b>BIO-3.1:</b> Project-Level Wildlife Movement Considerations.</p> <p>The County shall require discretionary projects to retain movement corridors of adequate</p>	<p>2030—Less than significant</p> <p>2092—Less than significant</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat. The County shall consider the need for wildlife movement in designing and expanding major roadways and public infrastructure projects to provide movement opportunities for terrestrial wildlife and to ensure that existing stream channels and riparian corridors continue to provide for wildlife movement and access.</p> <p><b>2092</b>  <b>BIO-1.2</b> described under Impacts to Special Status Species.  <b>BIO-1.3</b> described under Impacts to Special Status Species.  <b>BIO-1.4</b> described under Impacts to Special Status Species.  <b>BIO-1.5</b> discussed under Impacts to Special Status Species.  <b>BIO-2.1</b> discussed under Impacts to Sensitive Natural Communities.  <b>BIO-3.1</b> discussed above.</p>	
<p>BIO-3.2: Potential Loss or Disturbance of Nesting Migratory Birds and Raptors</p>	<p><b>2030</b>  <b>BIO-3.2:</b> Remove Vegetation During the Nonbreeding Season and Avoid Disturbance of Nesting Migratory Birds, Including Raptors, as Appropriate (generally September 16 to January 31).</p> <p>Vegetation removed in the course of development will be removed only during the nonbreeding season (generally September 16 to January 31). Occupied nests of migratory birds, including raptors, will be avoided during this period. The county shall consult, or require the developer to consult, with a qualified biologist prior to any site preparation or construction work in order to (1) determine whether work is proposed during nesting season for migratory birds, (2) determine whether site vegetation is suitable to nesting migratory birds, (3) identify any regulatory requirements for setbacks or other avoidance measures for migratory birds which could nest on the site, and (4) establish project-specific requirements for setbacks, lock-out periods, or other methods of avoidance of nesting birds. The county shall require the development to follow the recommendations of the biologist.</p> <p><b>2092</b>  <b>BIO-3.2</b> discussed above.</p>	<p>2030—Less than significant                  2092—Less than significant</p>
<p>BIO-4: Potential Loss of Protected Trees</p>	<p>No mitigation beyond the 2007 General Plan policies is necessary.</p>	<p>2030—Less than significant                  2092—Less than</p>



Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
		significant
BIO-5.1: Potential Inconsistency with Adopted Conservation Plan	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than significant
CUM-9: Biological Resources	Mitigation measures BIO-1.1 to 1.5, BIO-2.1 to 2.3, BIO-3.1 to 3.2.	Cumulatively considerable.
<b>4.10 CULTURAL RESOURCES</b>		
CUL-1: Development under the 2007 General Plan could potentially damage or destroy historic resources.	<b>CUL-1:</b> Policy CSV-1.1 of the Central Salinas Valley Area Plan will be revised to read: CSV-1.1 <u>Special Treatment Area: Paraiso Hot Springs</u> —The Paraiso Hot Springs properties shall be designated a Special Treatment Area. Recreation and visitor serving land uses for the Paraiso Hot Springs Special Treatment Area may be permitted in accordance with a general development plan and other discretionary approvals such as subdivision maps, use permits, and design approvals. The Special Treatment Area may include such uses as a lodge, individual cottages, a visitor center, recreational vehicle accommodations, restaurant, shops, stables, tennis courts, aquaculture, mineral water bottling, hiking trails, vineyards, and orchards. The plan shall address cultural resources protection, fire safety, access, sewage treatment, water quality, water quantity, drainage, and soil stability issues (APN: 418-361-004, 418-361-009, 418-361-021, 418-361-022).	2030—Less than significant 2092—Less than significant
CUL-2: Development under the 2007 General Plan could potentially damage or destroy archaeological resources.	<b>CUL-1</b> discussed under impacts to historic resources.	2030—Less than significant 2092—Less than significant
CUL-3: Development under the 2007 General Plan could result in damage or destruction of paleontological resources.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than significant
CUL-4: Buildout of the 2007 General Plan could damage or destroy burial sites.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
<b>4.11 PUBLIC SERVICES AND UTILITIES</b>		
PSU-1: Development and land use activities contemplated in the 2007 General Plan may result in the need for new or expanded fire facilities.	No mitigation beyond the 2007 General Plan policies is necessary.	2092—Less than significant  2030—Less than significant Buildout—Less than significant
PSU-2: Development and land use activities contemplated in the 2007 General Plan may result in the need for new or expanded Sheriff's facilities.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
PSU-3: Development and land use activities contemplated in the 2007 General Plan may result in the need for new or expanded school facilities. Future schools may affect adjoining land uses.	<b>2030</b> No mitigation beyond the 2007 General Plan policies is necessary. <b>2092</b> Specific mitigation of school operational impacts is not feasible because specific future school characteristics are unknown.	2030—Less than significant Buildout—Significant and unavoidable
PSU-4: Development and land use activities contemplated in the 2007 General Plan may result in the need for new or expanded library facilities.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
PSU-5: Development and land use activities contemplated in the 2007 General Plan may result in the need for new or expanded public health facilities.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
PSU-6: Development and land use activities contemplated in the 2007 General Plan may create additional demands for wastewater collection and treatment, resulting in a need for new or expanded wastewater treatment facilities.	No mitigation beyond the 2007 General Plan policies and existing regulatory standards is necessary.	2030—Less than significant Buildout—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
PSU-7: Development and land use activities contemplated in the 2007 General Plan may result in the need for new or expanded stormwater drainage facilities.	<b>PS-1:</b> The County will add the following policy to the 2007 General Plan: Policy S-3.9: require all future developments to implement the most feasible number of Low Impact Development (LID) techniques into their stormwater management plan. The LID techniques may include, but are not limited to, grassy swales, rain gardens, bioretention cells, tree box filters, and preserve as much native vegetation as feasible possible on the project site.	2030—Less than significant Buildout—Less than significant
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.	<b>2030</b> No mitigation beyond the 2007 General Plan policies is necessary. <b>2092</b> <b>PS-2:</b> 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.	2030—Less than significant Buildout— Significant and unavoidable
CUM-10: Public Services and Utilities – Solid Waste	No mitigation is feasible.	Cumulatively considerable.
<b>4.12 PARKS AND RECREATION</b>		
PAR-1: Implementation of the 2007 General Plan would result in the need for new or expanded parks and recreational facilities, which were not contemplated in the general plan.	No mitigation beyond the 2007 General Plan policies is necessary.	Less than significant
PAR-2: Population growth associated with implementation of the 2007 General Plan would potentially create additional demands on existing parks and recreational facilities, thereby resulting in the physical deterioration of such facilities.	No mitigation beyond the 2007 General Plan policies is necessary.	Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
<b>4.13 HAZARDS AND HAZARDOUS MATERIALS</b>		
HAZ-1: New development in accordance with the 2007 General Plan would expose persons to hazardous materials from routine use, transport, or disposal of hazardous materials or the release of hazardous materials.	No mitigation beyond the 2007 General Plan policies is necessary.	Less than significant
HAZ-2: The 2007 General Plan would establish new land uses that would potentially create aviation safety hazards.	No mitigation beyond the 2007 General Plan policies is necessary.	Less than significant
HAZ-3: New development in accordance with the 2007 General Plan would increase exposure to wildland fires.	No mitigation beyond the 2007 General Plan policies is necessary.	Less than significant
HAZ-4: Development under the 2007 General Plan would establish new land uses that would interfere with the implementation of an emergency response or evacuation plan.	No mitigation beyond the 2007 General Plan policies is necessary.	Less than significant
CUM-11: Hazards – Wildfire	No mitigation is feasible.	Cumulatively considerable.
<b>4.14 AESTHETICS, LIGHT, AND GLARE</b>		
AES-1: Implementation of the 2007 General Plan would result in a substantial adverse effects on scenic vistas.	No mitigation beyond the 2007 General Plan policies is available.	2030—Significant and unavoidable Buildout—Significant and unavoidable
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.	No mitigation beyond the 2007 General Plan policies is available.	2030—Significant and unavoidable Buildout—Significant and unavoidable
AES-3: Implementation of the 2007 General	No mitigation beyond the 2007 General Plan policies is available.	2030—Significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
Plan would substantially degrade the existing visual character or quality of Monterey County.		and unavoidable Buildout— Significant and unavoidable
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.	Significant and unavoidable
CUM-12: Aesthetics, Light and Glare	No mitigation is feasible.	Cumulatively considerable.
<b>4.15 POPULATION AND HOUSING</b>		
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 and unavoidable Buildout— Significant and unavoidable
POP-2: Buildout of the 2007 General Plan would result in the displacement of existing housing units, necessitating the construction of new housing elsewhere.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
POP-3: Buildout of the 2007 General Plan would result in the displacement of persons, necessitating the construction of new housing elsewhere.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
CUM-13: Population and Housing	No mitigation is feasible.	Cumulatively considerable.
<b>4.16 CLIMATE CHANGE</b>		
CC-1: Development of the 2007 General Plan would contribute considerably to cumulative GHG emissions and global climate change as	<b>2030 Horizon</b> <b>CC-1a:</b> Modify Policy OS-10.11 regarding the Greenhouse Gas Reduction Plan	2030—Less than cumulatively considerable

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>the County in 2020 would have GHG emissions greater than 72% of business as usual conditions.</p>	<p>Revise Policy OS-10.11 as follows:</p> <p>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% relative to estimated “business as usual” 2020 emissions.</p> <p>At a minimum, the Plan shall:</p> <ol style="list-style-type: none"> <li>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;</li> <li>b. forecast GHG emissions for 2020 for County operations;</li> <li>c. forecast GHG emissions for areas within the jurisdictional control of the County for “business as usual” conditions;</li> <li>d. identify methods to reduce GHG emissions;</li> <li>e. quantify the reductions in GHG emissions from the identified methods;</li> <li>f. requirements for monitoring and reporting of GHG emissions;</li> <li>g. establish a schedule of actions for implementation;</li> <li>h. identify funding sources for implementation; and</li> <li>i. identify a reduction goal for the 2030 Planning Horizon.</li> </ol> <p>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.</p> <p><b>CC-2:</b> Add Policy OS-10.12: Adoption of a Green Building Ordinance</p> <p>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:</p> <ul style="list-style-type: none"> <li>▪ All new County government projects and major renovations shall meet, at a minimum, LEED-Silver standards or an equivalent rating system</li> <li>▪ All new commercial buildings shall be certified under the LEED rating system for commercial buildings or an equivalent rating system.</li> <li>▪ All new residential projects of 6 units or more shall meet the GreenPoint Rating</li> </ul>	<p>Buildout— Cumulatively considerable</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>System for residential buildings, or an equivalent alternate rating system.</p> <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ 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.</li> <li>▪ 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.</li> </ul> <p><b>CC-3:</b> New Policy OS-10.13—Promote Alternative Energy Development</p> <p>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.</p> <p>The County shall adopt an Alternative Energy Promotion ordinance that will:</p> <ul style="list-style-type: none"> <li>▪ identify possible sites for production of energy using local renewable resources such as solar, wind, small hydro, and, biogas;</li> <li>▪ consider the potential need for exemption from other General Plan policies concerning visual resources, ridgeline protection, biological resources;</li> <li>▪ evaluate potential land use, environmental, economic, and other constraints affecting renewable energy development; and</li> <li>▪ 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.</li> </ul> <p>The County shall also complete the following:</p> <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ If CCA is ultimately not pursued, the County shall evaluate the feasibility of purchasing renewable energy certificates to reduce the County’s contribution to</li> </ul>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>GHG emissions related to County electricity use.</p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul> <p><b>CC-4: New Policy PS-5.5—Promote Recycling and Waste Reduction</b></p> <p>PS-5.5: The County shall promote waste diversion and recycling and waste energy recovery as follows:</p> <ul style="list-style-type: none"> <li>▪ The County shall adopt a 75% waste diversion goal.</li> <li>▪ The County shall support the extension of the types of recycling services offered (e.g., to include food and green waste recycling).</li> <li>▪ The County shall support waste conversion and methane recovery in local landfills to generate electricity.</li> <li>▪ The County shall support and require the installation of anaerobic digesters for winery facilities and wastewater treatment facilities under County jurisdiction.</li> </ul> <p><b>CC-5: Adopt GHG Reduction Plan for County Operations</b></p> <p>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.</p> <p>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.</p> <p><b>2092</b></p> <p><b>CC-11 (Same as BIO-1.9):</b> 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</p>	



Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>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.</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><b>CC-12: Greenhouse Gas Reduction Plan Requirements Beyond 2030</b></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% 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>	<p>2030 and Buildout— Less than cumulatively considerable</p>
	<p><b>CC-13: Develop and Integrate Climate Change Preparedness Planning for Monterey County</b></p> <p>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.</p> <p>A useful guide to climate resiliency planning is <i>Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments</i>. (The Climate Impacts Group, King County, Washington, and ICLEI—Local Governments for Sustainability 2007), which outlines the following steps:</p> <ul style="list-style-type: none"> <li>▪ Scope the climate change impacts to major County sectors and building and maintain support among stakeholders to prepare for climate change.</li> <li>▪ Establish a climate change preparedness team.</li> <li>▪ Identify planning areas relevant to climate change impacts.</li> <li>▪ 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</li> </ul>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
CUM-12: Climate Change	<p>communities to adapt to climate change impacts</p> <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ Establish a vision and guiding principles for climate resilient communities and set preparedness goals in priority planning areas based on these guiding principles.</li> <li>▪ Develop, select, and prioritize possible preparedness actions.</li> <li>▪ Identify a list of important implementation tools</li> <li>▪ Develop an understanding of how to manage risk and uncertainty in the planning effort.</li> <li>▪ Develop measures of resilience, and use these to track the results of actions over time</li> <li>▪ Review assumptions and other essential information to ensure that planning remains relevant to the most salient climate change impacts.</li> <li>▪ Update plans regularly.</li> </ul> <p>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.</p> <p>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.</p> <p>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.</p>	Cumulatively considerable.

## **1.4 Significant and Unavoidable Impacts**

The EIR has identified the following areas where, after the implementation of feasible mitigation measures, the proposed project may nonetheless result in impacts that cannot be fully mitigated to a level of insignificance.

### **1.4.1 Agriculture Resources**

Development and land use activities contemplated by the 2007 General Plan Update would result in the conversion of productive farmland to non-agricultural use. More than 5,500 acres of Important Farmland (as designated by the California Department of Conservation) and more than 7,000 acres of Williamson Act farmland would be converted to non-agricultural use. Note that there is overlap between Important Farmland and Williamson Act Farmland.

### **1.4.2 Water Resources**

Future growth anticipated by the 2007 General Plan would result in significant impacts to groundwater resources in the Pajaro basin and Monterey Peninsula up to the 2030 planning horizon. A number of initiatives now underway would reduce the groundwater impacts in these areas, but not sufficiently to avoid a significant effect. The Salinas Valley Water Project avoids this impact in the Salinas Valley. Increased demands for potable water associated with future urban development may result in the exacerbation of existing groundwater overdraft and seawater intrusion problems in all parts of the county by 2092. Future initiatives are not well enough known to determine that they would avoid this impact.

### **1.4.3 Transportation**

Future growth anticipated by the 2007 General Plan will result in greater traffic volumes on local and regional roadways (i.e., highways). The cumulative traffic generated by both cities and the County will cause some County roadways to operate at LOS E or F. Mitigation is proposed that would require future development projects to pay a Traffic Impact Fee; however, it would not fully reduce this potentially significant impact to a level of less than significant.

## **1.4.4 Aesthetics, Light, and Glare**

Development contemplated by the 2007 General Plan would result in new development on agricultural and undeveloped lands. This new development would irreversibly change the localized visual character of these areas and introduce new sources of light and glare, which may adversely impact the quality of daytime and night time views.

## **1.4.5 Global Climate Change**

Development authorized under the 2007 General Plan would increase the emissions of the “greenhouse” gases that are a major cause of global climate change. California law requires the California Air Resources Board and other state agencies to enact regulations that will reduce the state’s emissions to 1990 levels by 2020. Improved local land use plans and regulations will need to play a part in this reduction. As part of its commitment to reduce greenhouse gas emissions, the county will adopt a climate action plan within two years of passage of the 2007 General Plan. A number of mitigations are also recommended. This will not reduce the impact below a level of significance.

# **1.5 Summary of Alternatives**

CEQA requires the lead agency to consider a reasonable range of feasible alternatives to the proposed project that: (1) meet most or all of the project’s objectives; (2) substantially reduce one or more of its significant effects; and (3) are potentially feasible. The County has examined 5 alternatives to the 2007 General Plan. Because a general plan is a large and complex set of policies that are intended to interact with one another to result in a desired future pattern of land use, development, and resource conservation, the county has chosen to consider several alternative general plans. With one exception, these are fully developed plans that at one time or another have been prepared for the purpose of becoming the general plan for the county. The exception is the Transit Oriented Development alternative. It is based largely on the 2007 General Plan, with specific emphasis on reducing vehicle miles travelled through improved transit and land use restrictions.

Below are very brief summaries of each of the alternatives to the 2007 General Plan that are examined in Section 5 of this EIR. See Section 5 for a more complete description of each of the alternatives and a qualitative comparison of their potential impacts. As authorized under Section 15126.6 of the State CEQA Guidelines, the alternatives are examined at a lesser level of detail than the 2007 General Plan. As required under CEQA, the range of alternatives includes the no-project alternative. The alternatives are qualitatively compared to the 2007 General Plan and each other in Table 1-3.

### **1.5.1 No Project—Existing 1982 General Plan Alternative**

Under the No Project—Existing 1982 General Plan Alternative, the current General Plan (1982 General Plan) would remain in effect and future development would occur in accordance with the land use map and policies of this plan.

### **1.5.2 21<sup>st</sup> Century Monterey County General Plan Alternative**

The 21<sup>st</sup> Century Monterey County General Plan (GPU3) Alternative would adopt the previously proposed General Plan update considered, and ultimately rejected, by the Monterey County Board of Supervisors in 2004. This alternative provides for the most extensive growth of the alternatives being considered: eight Community Areas and 17 Rural Centers.

### **1.5.3 General Plan Initiative Alternative**

The General Plan Initiative (GPI) Alternative would adopt the version of the General Plan that was drafted by a community group and that was considered and defeated by voters on the June 2007 ballot. This alternative would establish five Community Areas and no Rural Centers. It is designed to strongly encourage future development to locate in the cities, rather than the unincorporated areas. Under this alternative, expanding areas designated for residential development would require a countywide vote.

### **1.5.4 General Plan 4 Alternative**

The General Plan 4 Alternative is the General Plan that was adopted by the County Board of Supervisors in January 2007. It is similar to the 2007 General Plan in many respects. However, it does not have as strict a requirement for development evaluations prior to project approval to ensure that sufficient services will be available, nor does it limit development to the first residence on existing lots of record in the northern part of the county as the 2007 General Plan does. The slope development policies are also less stringent than proposed in the 2007 General Plan. It proposes more extensive development than the 2007 General Plan, with six Community Areas and nine Rural Centers identified as the primary areas for growth.

## **1.5.5 Transit Oriented Development Alternative**

The Transit Oriented Development (TOD) Alternative would focus 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. Estimated new residential development under the TOD alternative is the same as for 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 affordable housing overlay districts (AHOs) identified as “receiving” areas.

In rendering a decision on a project, the decision makers are not obligated to select the environmentally superior alternative. Decision-makers may approve a project with significant effects. At the same time, the decision-makers cannot approve a project that would have significant, unavoidable effects unless there are no feasible mitigation measures or alternatives that would avoid those effects. The decision-makers are obligated to make specific findings describing why there are no feasible mitigations or alternatives.

**Table 1-3.** Summary of 2007 General Plan Alternatives

Topical Area	2007 General Plan	No Project	GPU3	GPI	GPU4	TOD
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

Notes:

GPU3 = 21<sup>st</sup> Century Monterey County General Plan, dated January 2004.

GPI = General Plan Initiative.

GPU4 = 2006 General Plan and adopted General Plan 2006.

TOD = Transit Oriented Development Alternative.

## 1.6 Areas of Controversy and Issues to be Resolved

Pursuant to Section 15123 of the CEQA Guidelines, a summary section must identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. In addition, the summary section also identifies issues to be resolved. Each of these issues is discussed below.

A Notice of Preparation (NOP) for the 2007 General Plan was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period from December 2, 2007 through January 3, 2008. In

addition, a public scoping meeting was held in January 2008. The NOP identified the following topics as being potentially significant impacts:

- Aesthetics, Light, and Glare
- Agriculture Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Land Use
- Mineral Resources
- Noise
- Parks and Recreation
- Population and Housing
- Public Services and Utilities
- Transportation
- Water Resources

A number of agencies, organizations, and individuals provided comments on the NOP. These comments suggested areas of study and identified concerns over the direction of the County general plan and its potential environmental impacts.

## **1.6.1 Areas of Controversy**

Below are summaries of controversial issues that are anticipated to be debated during the public review and hearing process of this project.

### **1.6.1.1 Population Growth**

Development contemplated by the 2007 General Plan would increase the population of the unincorporated areas of the County from 106,279 (estimated 2006 population) to approximately 135,375 persons by the 2030 planning horizon (a 27% increase). Full buildout in 2092 would see an estimated population of 207,424 (a 95% increase over 2006). Population growth has historically been a concern in Monterey County and the potential for additional growth outside of the cities on existing lots of record in the northern portion of the county is expected to be scrutinized closely.



### **1.6.1.2 Water Supply**

Monterey County has significant existing water constraints. The three major watersheds in the County (Salinas, Carmel, and Pajaro Rivers) are all in a state of overdraft. Although initiatives are either underway or in the planning stages, except in the Salinas Valley, the initiatives will not be sufficient to provide water to support projected growth and will not stop groundwater decline within the 2030 planning horizon. Longer term, there may not be sufficient water in any of the watersheds. Sea water intrusion into underground aquifers is occurring in the upper Salinas Valley and in North County, including the Pajaro Valley. Planned or active initiatives are halting this intrusion, but will that will be difficult to continue with increased demand from new growth. Given these constraints, future development and land use activities would further exacerbate these water-related problems without careful planning.

### **1.6.1.3 Traffic Congestion**

Future growth anticipated by the 2007 General Plan, as well as city growth during the 2030 planning horizon and beyond, would result in additional vehicle trips on local and regional roadways. These additional vehicle trips may result in some roadways operating at levels that exceed the County's preferred standard of traffic flow, causing increased traffic congestion in the County.

### **1.6.1.4 Loss of Farmland**

Development and land use activities contemplated by the 2007 General Plan could potentially result in the loss of more than 5,400 acres of Important Farmland and 6,700 acres of Williamson Act land (much of it overlapping). The 2007 General Plan encourages development to occur first in the cities, Community Areas, and Rural Centers. The latter would require the conversion of relatively little agricultural land. However, development would also be allowed on existing lots outside of these areas (restricted to a single residence on lots of record within the North County, Greater Salinas, and Toro Area Plans). There are 4,629 existing lots of record of varying sizes, in the unincorporated county,

### **1.6.1.5 Biological Resources**

Development contemplated by the 2007 General Plan, as well as continued expansion of agricultural lands, would occur in areas that contain sensitive plant and animal species, riparian areas, and wetlands. The conversion of these areas to other uses could potentially result in the significant loss or degradation of biological resources.

### **1.6.1.6 Aesthetics, Light, and Glare**

Future growth in lesser developed or undeveloped areas would result in permanent localized impacts associated with aesthetics, light, and glare. New development may result in the conversion of natural areas or agricultural fields to urban uses, irreversibly changing the visual character of these areas. In addition, new development may also result in the introduction of substantial sources of light and glare, thereby altering daytime and nighttime views.

### **1.6.1.7 Global Climate Change**

Emission of carbon dioxide and other greenhouse gases from routine human activities is inducing global climate change by trapping heat within the atmosphere. California is leading the way among the states in addressing climate change by reducing our greenhouse gas emissions. Local governments, such as Monterey County, are being looked upon to establish land use patterns and regulations that will reduce emissions by conserving energy, reducing vehicle miles travelled, and other actions.

## **1.6.2 Disagreement among Experts**

This EIR contains substantial evidence to support the conclusions presented herein. However, there is the possibility that there will be disagreement among various parties regarding these conclusions. Both the State CEQA Guidelines and case law provide the standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision-makers to make an informed judgment about the environmental consequences of the proposed project.

Evidence presented during the public and agency review of the Draft EIR will be incorporated into the Final EIR for this project. In their proceedings, the decision-makers will consider comments received concerning the adequacy to the Draft EIR and address any objections raised in these comments. Decision-makers reviewing the Final EIR will have the ability to consider this material during the public hearing process.

## **1.7 Public Review of the Draft EIR**

The Draft EIR will be available for public review for the statutory 45 day public review period, beginning September 5, 2008. During that time, agency

representatives and members of public will have the ability to submit written comments on the Draft EIR to the address provided below.

Carl Holm, Assistant Director  
County of Monterey Resource Management Agency  
Planning Department  
168 W. Alisal Street, 2<sup>nd</sup> Floor  
Salinas, CA 93901  
Phone: 831.755.5025 Fax: 831.757.9516  
E-mail: HolmCP@co.monterey.ca.us

Submittal of electronic comments in MS Word format is encouraged. After the end of the public review period, the County will prepare written responses to all environmental issues raised as part of preparing the Final EIR. The Final EIR will consist of the Draft EIR, comments received, written responses to comments, and list of commenter's. It may also contain additional information necessary to respond to the comments. All public agencies that submitted comments will be sent a copy of the County's response at least 10 days prior to the public hearing at which the Final EIR will be considered for approval by Board of Supervisors.

The Board of Supervisors will certify the Final EIR prior to taking action on the proposed 2007 General Plan. At that time, they will adopt findings regarding the disposition of each significant effect identified in the Final EIR, as well as a statement of overriding considerations describing the specific benefits that outweigh the projects significant and unavoidable impacts.

## 1.8 Future Use of this EIR

After certification by the County Board of Supervisors, this EIR may be used by the County and other agencies as a "first tier" document for later projects, as authorized by Section 15183 (projects consistent with a community plan or zoning) of the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000, et seq.). As a first tier document, the EIR would be the basis for later CEQA reviews. Reviews of later proposals under this provision of CEQA would be required to consider any project-specific impacts that were not addressed in the 2007 General Plan EIR.

These later projects are not known at this time. However, they may include County actions such as:

- Rezoning undertaken to make zoning consistent with the 2007 General Plan
- Adoption of plans for Community Areas and Rural Centers, to the extent that such plans are consistent with the 2007 General Plan and recognizing that there will be site-specific impacts needing additional CEQA analysis.
- Adoption of the Capital Infrastructure Financing Plans and similar infrastructure-related plans set out under the 2007 General Plan, with the

understanding that site-specific impacts will require additional CEQA analysis.

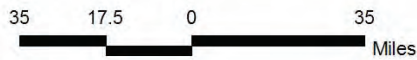
- Actions to implement the Agricultural Wineries Corridor Plan component of the 2007 General Plan, again recognizing that site-specific impacts will require further CEQA review.

Other agencies may also utilize this EIR for their decisions. The extent to which the EIR is relied upon will depend upon whether the actions are consistent with the 2007 General Plan, there are new project-specific impacts requiring additional CEQA review, and whether the other agency chooses to use the EIR. There are no such proposed actions by other agencies currently known. However, other actions may include:

- Consideration of annexation requests by the Local Agency Formation Commission of Monterey County.



Source: Census 2000 Data, The CaSIL, MBA GIS 2006.



MONTEREY COUNTY GENERAL PLAN EIR

00982.07 (06-08)

## **2.1 California Environmental Quality Act**

This environmental impact report (EIR) (State Clearinghouse No. 2007121001) has been prepared according to California Environmental Quality Act (CEQA) California Resources Code Section 21000 et seq.; the Guidelines for the California Environmental Quality Act (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the County of Monterey (County). It evaluates the potential environmental impacts associated with the implementation of the proposed 2007 Monterey County General Plan update (2007 General Plan) for the unincorporated non-coastal portion of the County. A copy of the 2007 General Plan is located on the accompanying CD at the end of this EIR.

### **2.1.1 Purpose of the Environmental Impact Report**

The purpose of this EIR is to inform County decision-makers, representatives of other affected/responsible agencies, the public, and other interested parties of the potential environmental effects that may be associated with the 2007 General Plan, mitigation measures to reduce those effects, and a range of alternatives to the project.

According to Section 15002 of the CEQA Guidelines, the basic purposes of CEQA are to:

- Inform government decision-makers and the public about the potential significant environmental effects of proposed activities;
- Identify ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governing agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The process of preparing an EIR involves the following discrete steps:

- Issuance of a Notice of Preparation (NOP) soliciting the comments of public agencies and interested organizations and individuals regarding the scope and content of the EIR. The NOP is available for comment for at least 30 days. An NOP was distributed for this EIR on December 2, 2007. The comments to the NOP received from agencies and the public are included in Appendix A of this EIR.
- A scoping meeting to offer an additional opportunity for input prior to preparation of the Draft EIR. A scoping meeting was held at the Planning Department office in Salinas in January 2007.
- Preparation and release for public review and comment of the Draft EIR. The Draft EIR will be available for at least 45 days for public agencies and interested organizations and individuals to review. The county will respond to all pertinent comments in the Final EIR.
- Preparation of the Final EIR. This will contain the Draft EIR, the comments received (and a list of commenters), written responses to comments, and any revisions that are made to the Draft EIR in response to the comments. The County Board of Supervisors will consider the Final EIR prior to taking action on the 2007 General Plan.
- Adoption of findings and a statement of overriding considerations. The Board of Supervisors will adopt a set of “findings” that describe how each significant effect is being addressed. Because the 2007 General Plan will result in significant and unavoidable impacts, the County will also adopt a statement of overriding considerations that explains the specific benefits of adopting the General Plan.

An EIR is an informational document. Each of the following sections of the EIR addresses potential significant adverse environmental impacts associated with development pursuant to the 2007 General Plan. Impacts are disclosed separately for development to the 2030 planning horizon and up to full buildout, which is expected to occur in 2092. The EIR examines the potential effects of the 2007 General Plan in the context of the proposed plan policies. Where the 2007 General Plan policies would not be sufficient to reduce impacts to a less than significant level and there is feasible mitigation that would do so, the EIR identifies that mitigation.

The EIR neither approves nor denies a project. The Monterey County Planning Commission and Board of Supervisors will use to EIR to inform themselves of the impacts of the 2007 General Plan before taking action on the plan. They will also consider other information and testimony that will arise during deliberations on the proposed plan. After weighing this information, they will then make their decision.

Environmental impacts cannot always be mitigated to a level that is considered less than significant. In accordance with Section 15093(b) of the CEQA Guidelines, if a Lead Agency approves a project that has significant impacts that cannot be mitigated (i.e., significant unavoidable impacts), the agency cannot

approve the project without specifying in writing the project benefits that justify its approval. Because a general plan involves land uses for an entire county, most general plan EIRs identify significant and unavoidable impacts. This EIR is no exception. As mentioned above, prior to approving the 2007 General Plan in its final form, the County will adopt a “statement of overriding considerations” that describes the specific benefits that outweigh the significant and unavoidable impacts of the plan.

## **2.1.2 Level of Detail**

This EIR considers the potential environmental effects of implementing the 2007 General Plan. The CEQA Guidelines provides that “[t]he degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR” (CEQA Guidelines 15146). The 2007 General Plan is a broad statement of policies. Accordingly, this EIR “need not be as detailed as an EIR on ... specific construction projects” (CEQA Guidelines Section 15146). Further actions or procedures necessary to implementing the 2007 General Plan will include the processing of zoning plans, specific plans, tentative tract maps, site design plans, building permits, and/or grading permits.

To keep the analysis of impacts in this Program EIR in perspective, the County of Monterey contains an area of 3,771 square miles. It includes well-established urban, suburban, and rural communities of varying sizes and development intensity. The County has an extensive array of agricultural lands, lands devoted to mineral extraction, and recreational areas. There are rugged mountains, flat valley areas, and expansive natural open space areas. In addition, the County contains large expanses of Federal and State lands and 12 incorporated cities that are not under the land use authority of the County. The analysis in an EIR for a county this size is not intended to be site-specific, but is a more broad analysis. For instance, the traffic analysis determines on a gross level whether development under the 2007 General Plan will result in traffic congestion and where that would occur. It cannot, however, determine the specific street improvements that individual future projects might need in order to avoid their site-specific impacts on the traffic system.

## **2.1.3 Prior General Plan EIR**

A Final EIR was previously prepared and certified by Monterey County for its 2006 General Plan (GPU4) in early 2007. This draft EIR for the 2007 General Plan is a new, stand alone analysis of the potential significant effects of the proposed 2007 General Plan. To the extent applicable, information from the Final EIR, certified for GPU 4, has been utilized.



## 2.2 Intended Use of the Environmental Impact Report

This EIR is prepared for the purpose of analyzing, at a broad scale, the proposed 2007 General Plan for the County of Monterey. The EIR will be the foundation for the County’s deliberations on and approval of the 2007 General Plan. The CEQA Guidelines provide that “the degree of specificity in an EIR will correspond to the degree of specificity in the underlying activity that is described in the EIR” (Section 15146). Here, the underlying activity is adoption of a general plan for Monterey County—defined by state law as “a statement of development policies [that] shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals” (Government Code Section 65302). With some exceptions, as explained below, the general plan will apply countywide. Accordingly, this EIR does not take a parcel-specific view or provide a parcel-specific analysis of potential impacts resulting from the proposed 2007 General Plan.

The following discretionary actions are anticipated to be taken by Monterey County based on this EIR:

- Adoption of the Monterey County 2007 General Plan.

### 2.2.1 General Plan Adoption

Adoption of the 2007 General Plan is an action that is the responsibility of the Monterey County Board of Supervisors. The proposed 2007 General Plan will first be considered by the County Planning Commission, which will offer its recommendations to the Board. The Board will take final action on the General Plan. Public hearings will be part of both the Planning Commission and Board deliberations. No other action or permit is necessary in order to approve the general plan.

Prior to considering the 2007 General Plan, the County has contacted Native American tribes to solicit their opinions, as provided by SB 18. The County has also consulted with state and local agencies through the CEQA process. A list of the extensive contacts made during the consultation period is available upon request to the Monterey County Planning Department.

### 2.2.2 Future Use of this EIR

After certification by the County Board of Supervisors, this EIR may be used by the County and other agencies as a “first tier” document for later projects, as authorized by Section 15183 (projects consistent with a community plan or zoning) of the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000, et seq.). As a first tier document, the EIR would be the basis for

later CEQA reviews. Reviews of later proposals under this provision of CEQA would be required to consider any project-specific impacts that were not addressed in the 2007 General Plan EIR.

These later projects are not known at this time. However, they may include County actions such as:

- Rezoning undertaken to make zoning consistent with the 2007 General Plan
- Adoption of plans for Community Areas and Rural Centers, to the extent that such plans are consistent with the 2007 General Plan and recognizing that there will be site-specific impacts needing additional CEQA analysis.
- Adoption of the Capital Infrastructure Financing Plans and similar infrastructure-related plans set out under the 2007 General Plan, with the understanding that site-specific impacts will require additional CEQA analysis.
- Actions to implement the Agricultural Wineries Corridor Plan component of the 2007 General Plan, again recognizing that site-specific impacts will require further CEQA review.

Other agencies may also utilize this EIR for their decisions. The extent to which the EIR is relied upon will depend upon whether the actions are consistent with the 2007 General Plan, there are new project-specific impacts requiring additional CEQA review, and whether the other agency chooses to use the EIR. There are no such proposed actions by other agencies currently known. However, other actions may include:

- Consideration of annexation requests by the Local Agency Formation Commission of Monterey County.

## 2.3 Environmental Impact Report Focus

Due to the comprehensive nature of the 2007 General Plan, the following topics are addressed in this EIR:

- Land Use
- Agricultural Resources
- Water Resources
- Geology, Soils, and Seismicity
- Mineral Resources
- Transportation
- Air Quality
- Noise
- Biological Resources

- Cultural Resources
- Public Services and Utilities
- Parks and Recreation
- Hazardous Materials
- Aesthetics, Light, and Glare
- Population and Housing
- Climate Change

## 2.4 Document Format

To assist the reader's review of the document, the following describes the format of this Program EIR.

**Section 1.0** is an executive summary of the contents and findings contained in this document. It also contains a brief description of the proposed project, areas of controversy, public review procedures, and a summary table listing all project impacts, mitigation measures that have been recommended to reduce any significant impacts of the 2007 General Plan, and the level of significance of each impact following mitigation. This section also briefly describes the alternatives.

**Section 2.0** describes this EIR's purpose and legal requirements, as well as its intended use. It contains an outline of the document and a list of the environmental issues that are discussed in this EIR.

**Section 3.0** details the description for the 2007 General Plan, including history, setting (land uses), and proposed objectives.

**Section 4.0** contains the environmental analysis of the 2007 General Plan, by environmental topic. Discussion of existing setting, thresholds of significance impacts, and mitigation measures by environmental topic (e.g., aesthetics, air quality, and noise) is organized according to the following framework:

- Methodology
- Thresholds of Significance
- Impact Analysis
  - Environmental Topic
    - Impact
    - 2030 Planning Horizon
      - Impact of Development with Policies
        - 2007 General Plan Policies

- Area Plan Policies
  - Significance Determination
  - Mitigation Measures
  - Significance Conclusion
- Buildout
  - Impact of Development with Policies
    - 2007 General Plan Policies
    - Area Plan Policies
  - Significance Determination
  - Mitigation Measures
  - Significance Conclusion

**Section 5.0** contains discussion of alternatives to development of the 2007 General Plan. As allowed by CEQA, most of the impacts of these alternatives are evaluated at a more general level than the analyses contained in Section 4.0.

**Section 6.0** contains discussions of additional topics required by CEQA, including unavoidable effects of the 2007 General Plan, significant irreversible environmental changes, growth inducing impacts, cumulative impacts, and consistency with regional plans.

**Sections 7.0 through 11.0** contain listings of organizations and persons consulted in preparation of the, the EIR preparers, references, glossary, and acronyms.

The Appendices contain copies of the NOP and comment letters, and technical reports.

## 2.5 Approach to the Impact Analysis

The County has relied primarily on growth projections in the Association of Monterey Bay Area Governments (AMBAG) 2004 Regional Forecast as the basis for determining potential impacts to resources that would result from implementation of the 2007 General Plan. Where appropriate, data regarding trends have also been incorporated into the analysis. The AMBAG 2004 Regional Forecast was utilized by AMBAG in an iterative process with local, regional and state agencies as the basis for its certified traffic model. That model projects traffic to the year 2030.

In December 2007, AMBAG received a revised forecast from the California Department of Finance (DOF) which, based upon updated population data and employment statistics, projected a considerable decline in population and

employment growth for the region. Consistent with the data provided by DOF, the AMBAG Board adopted a revised forecast in April 2008. This revised forecast will provide the basis for a future update of the regional traffic model; however, revising the model will require a lengthy iterative process and therefore is not available for use by the County in preparation of this Draft EIR for the 2007 General Plan.

The 2004 forecast projected a 35,123 person increase in population from 2000 to 2030 and 28,198 new jobs. The 2008 forecast projects a 13,204 person increase in population from 2000 to 2030 and 17,909 new jobs. The projected growth in population for AMBAG 2008 (13,204) is 62% less than AMBAG 2004 projections (35,123). The projected growth in employment for AMBAG 2008 is 36% less than AMBAG 2004 projections (28,198 versus 17,909).

The County considered modifying its EIR analysis to reflect the revised forecast. However, for the purposes of this EIR, the County will utilize the AMBAG 2004 population projections. There are three reasons for doing so. First, AMBAG 2004 projections form 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 AMBAGs 2008 projections. Using the higher projections for purpose of CEQA analysis leads to more conservative results.

Since changes to the traffic model require a lengthy iterative process among all of the jurisdictions and transportation agencies, it was not feasible for the County to unilaterally adjust the regional traffic model to fit with the revised 2008 projections. Rather than proceed with two different sets of data, which might have resulted in some internal inconsistencies for the EIR analysis, the County decided to utilize the 2004 forecast for its impact analysis. This will result in an assessment of potential impacts between today (baseline) and 2030 that exceeds likely impacts and therefore is a more conservative approach. For example, traffic volumes in the 2004 model are greater than would likely occur based upon the reduced growth projections of the 2008 forecast.

The State encourages jurisdictions to revise their general plans periodically. Typically in California, General Plans are comprehensively updated every 20 year and the typical planning horizon for most general plans is a twenty-year timeframe. Housing Elements are required to be updated at least every 5 years. A general plan theoretically allows more growth in a jurisdiction than is likely to occur in any 20-year timeframe. Full buildout, or development that could occur to the maximum density allowed on every residential parcel, is a concept that requires making assumption about the rate of growth, socio-economic changes, international competition and personal preferences of the residents of an area. It also must factor in a number of resource constraints, e.g., availability of water, and other infrastructure constraints.

The analysis for the EIR also distinguishes between reasonably foreseeable growth from 2006 to the horizon year for the General Plan of 2030 (end date for the certified traffic model) and growth beyond 2030 (full buildout). Growth to 2030 is again calculated in accordance with the AMBAG 2004 forecast. In order to determine the theoretical year in which full buildout would occur, the County has utilized the same rate of growth assumed in the 2004 AMBAG forecast from 2006 up to 2030 and projected that out to the future beyond 2030. Using the AMBAG growth estimates and assumption that there are 2.78 persons per house, there would be 417 new units per year in the unincorporated County between 2006 and 2030. There is no official Department of Finance projection for growth at the end of the century in Monterey County. However, it was necessary to comply with the requirement to evaluate the impacts of the General Plan at full buildout. Using the same assumptions as the 2006–2030 timeframe, buildout (74,573 residential units) would occur in 62 years or in 2092.

For purposes of this analysis, the EIR did not factor in the economic, social, technological and political factors that could change the rate of growth in either direction. With respect to impacts between 2030 and 2092, the discussion in each section reflects that assumptions about changes in projections that would occur in the future, and the variety of factors acting on the policy landscape, including potential technological advances, are speculative. Nevertheless, the analysis has examined impacts based upon what the County believes is the “worst case” scenario for growth into the future (e.g., growth will proceed at the same rate as the AMBAG 2004 forecast without taking into consideration availability of water, job availability, global economic factors or other potential infrastructure constraints).



## **3.1 Introduction to the 2007 Monterey County General Plan Update**

The General Plan is the blueprint for land use in Monterey County through 2030 (see attached CD for the complete 2007 General Plan). Full buildout is projected to occur in 2092. Monterey County is located on California's central coast and is bounded by the Pacific Ocean to the west, Santa Cruz County to the north, San Benito, Fresno, and Kings Counties to the east, and San Luis Obispo County to the south. (See Exhibit 1.1.) The 2007 General Plan provides a framework for future land use patterns in the unincorporated areas of the County in the form of goals and policies that are designed to facilitate planned, orderly growth.

California Planning Law requires all counties and cities in the State to prepare and maintain a general plan for the long-term growth, development, and management of the community. The general plan acts as a "constitution" for development, and is the County's lead legal document in relation to growth, development, and resource management issues. Development regulations (e.g., zoning and subdivision standards), community plans, and specific plans are required by law to be consistent with the General Plan. Every general plan must contain the following seven mandatory elements:

- **Land Use** designates the general distribution, density, and intensity of residential, commercial, industrial, agricultural, open space, and other categories of public and private land uses.
- **Circulation** is correlated with the land use element and identifies the general locations and extent of existing and proposed major thoroughfares, transportation routes, and infrastructure.
- **Housing** policies provide a detailed program to ensure adequate housing opportunities for all economic segments of the community, including provisions for the County to accept its "fair share" of regional housing needs of low- and moderate-income households.
- **Open Space** establishes policies for use of open space in the preservation of natural resources, outdoor recreation, public health and safety, support of the missions of military installations, and protection of Native American sacred lands.



- **Conservation** establishes policies for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. This includes flood management and water conservation.
- **Safety** establishes policies encompassing public health and safety in relation to such environmental hazards as earthquakes and associated seismically induced hazards, flooding, wildland fire, and soil erosion.
- **Noise** establishes policies to identify and appraise noise problems in the community. This element includes implementation measures and possible solutions that address existing and foreseeable noise problems.

A city or county may organize its general plan as it sees fit, including combining and renaming the mandatory elements. It may also—as Monterey County has done—adopt optional elements that apply to its circumstances, but are not otherwise required by California Planning Law.

The 2007 General Plan covers all unincorporated portions of the County. Lands within unincorporated areas that are owned by the federal government (e.g., Camp Roberts [northern part], Fort Hunter Liggett Military Reservation, Los Padres National Forest, Pinnacles National Monument, etc.) and lands owned by State government (e.g., Andrew Molera State Park, Salinas Valley State Prison, California State University Monterey Bay, California Department of Transportation properties, etc.) are not subject to County jurisdiction. However, state lands in the coastal zone are subject to the County’s Local Coastal Program (LCP) provisions.

The 2007 General Plan describes anticipated future growth over the long term, based on a planning horizon of 2030, and is the subject of this EIR. Buildout under the 2007 General Plan is not anticipated to occur until approximately the year 2092. The 2007 General Plan is meant to express the community’s goals with respect to the human-made and natural environments and to set forth the policies and implementation measures needed to achieve those goals for the welfare of those who live, work, and do business in Monterey County.

### 3.1.1 History of the Monterey County General Plan

Planning activities in Monterey County date back to the 1930s, with the creation of the County Planning Commission. In the 1950s, the Planning Department was established. The first comprehensive General Plan was adopted in 1968, and later updated in 1982. The original 1968 plan contained nine elements: land use, circulation, population, conservation, open space, economics, public facilities, historical resources, and ocean resources. Between 1968 and the mid-1970s, additional elements were added to the 1968 General Plan in accordance with new requirements in State General Plan law. The 1982 update reorganized the

General Plan, combining its elements into four components: Natural Resources, Environmental Constraints, Human Resources, and County Development.

Since 1982, various amendments have been made to the General Plan. Amendments have included Area Plans, Master Plans, Land Use Plans, element updates, and changes to the General Plan land use map.

### **3.1.2 General Plan Update**

Community roundtable meetings in November and December 1999 initiated a new general plan update process with a draft General Plan Update released in January of 2002 (GPU1). A Notice of Preparation (NOP) for preparing an EIR on GPU1 was issued on June 8, 2001. Hearings on the first draft were conducted throughout 2002 and a revised draft was completed in February of 2003 (GPU2). The Board of Supervisors held a series of public hearings between May and October 2003, and gave direction to staff on changes. The Public Review Draft of the 21<sup>st</sup> Century Monterey County General Plan, dated January 2004 (GPU3), represented a significant update to the 1982 General Plan, Area Plans, and Coastal Land Use Plans. GPU3 had been prepared to provide a framework for managing growth over the next 20 years. Multiple hearings on GPU3 were held between March and May 2004.

In March 2004, the Board of Supervisors rejected the draft GPU3 (dated January 2004), and EIR (dated February 2004), and directed staff to prepare a General Plan Update that would largely maintain the land use designations of the 1982 General Plan, but incorporate some of the policies with respect to focusing growth in community areas and rural centers that had been a key feature of three prior draft updates. On January 3, 2007, the Monterey County Board of Supervisors certified an EIR on the 2006 General Plan and adopted General Plan 2006 (GPU4). Subsequently, due to opposition to GPU 4, the Board placed a referendum measure on the June 2007 ballot asking the voters whether they wanted to rescind the resolutions adopting the General Plan. There were two additional, competing measures on the June ballot asking the voters whether they wanted to adopt the General Plan, or adopt a community general plan initiative. Voters were split on what road to take. The results of the June 2007 election showed that the majority of voters did not want to repeal the Board-approved GPU4, but also did not want to adopt either the GPU4 or the competing Community General Plan initiative.

In the aftermath of the uncertainty resulting from the election, the Board of Supervisors directed staff to develop amendments to GPU4. The Board requested that the Planning Commission appoint a subcommittee to develop proposals for changes that would take into account some of the diverse opinions in the community. The Commission took the matter into consideration and provided specific recommendations to the Board of Supervisors.

Based on the Planning Commission recommendations and as a result of several public hearings before the Board of Supervisors, the Board of Supervisors has

given direction for changes to GPU4, resulting in a fifth version of the General Plan update (“2007 General Plan” also known as “GPU5”). This environmental review pertains to the 2007 General Plan.

## 3.2 General Plan Objectives and Organization

The primary goal of the 2007 General Plan is to provide residents of the County with a blueprint for public and private development, and act as the foundation upon which County leaders will make decisions related to growth and land use. This 2007 General Plan expresses Monterey County’s goals with respect to human-made and natural environments and sets forth the policies and implementation measures to achieve them. These goals and policies are set forth by topic throughout this document.

### 3.2.1 Project Objectives

Per Section 15124 of the CEQA Guidelines, an EIR must provide a statement of objectives sought by the 2007 General Plan. This statement of objectives is intended to guide the environmental impact analysis and be used as the basis of evaluating alternatives to the 2007 General Plan (Section 5, Alternatives to the 2007 General Plan).

Monterey County’s process of updating its General Plan has been ongoing for nearly a decade. The 2007 General Plan update is the fifth proposed general plan update version. The 2007 General Plan update has been developed to reconcile, to the extent practical, the community’s differing points of view of what should be addressed in the General Plan and how it should be addressed. As provided in California Planning Law (Government Code Section 65100 et seq.), the 2007 General Plan will establish the County’s long-term goals and policies for development (including transportation and housing concerns), conservation of resources, and safety. The complexity of the general plan, with its interacting goals and policies, requires that it meet all of the following objectives in order to be effective.

- 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 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 1982 General Plan that reflect the latest legal, statutory, scientific, and technical changes and advances.
- 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 Agricultural Winery Corridor Plan (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.

### 3.2.2 Plan Organization

Monterey County has adopted all of the state-mandated general plan elements, as well as several optional elements. Since the County has a certified Housing Element for the 2003–2007 planning cycle, this element will not be updated until the next housing planning cycle. The 2007 General Plan is consistent with the policies in the current Housing Element. The other elements contained in the 2007 General Plan are listed below. Specific goals and policies contained in each element are analyzed in the applicable topical section in this EIR.

- **Land Use.** This element describes policies for the appropriate type and intensity of land use within unincorporated Monterey County including lands for housing, business, agriculture, industry, public facilities, open space, recreation, and other uses. The primary focus is to encourage city-centered growth within the 12 cities in Monterey County. However, given forecasted population growth for Monterey County (Table 3-1), as well as the desire to retain prime agricultural lands, scenic hillsides, and provide affordable housing in close proximity to employment centers, the 2007 General Plan identifies 12 locations within the unincorporated area of the County where population centers have been established and can accommodate additional growth. Five Community Areas are identified as areas where, with a more detailed plan for that area (Community Plan), additional growth would occur.

In addition, a second tier called Rural Centers identifies seven smaller population areas that, if provided with adequate facilities after adoption of a Capital Improvement and Financing Plan, would accommodate growth if Community Areas would not fulfill the need. The element also identifies three AHOs where landowners would be encouraged to build affordable housing at high density. Other provisions of the land use element include encouragement of clustering and the use of transfer of development rights to conserve land, and establishment of a “pass-fail” Development Evaluation System to judge the suitability of a given site for development projects of 5 units or more.

- **Circulation.** The element describes polices to support a multi-modal transportation system, including intensive improvements to the existing roadway and highway system, and to facilitate mobility of people and goods throughout unincorporated Monterey County. The element also supports regional cooperation on meeting transportation and transit needs, including a regional traffic impact fee. The circulation element would establish a Level of Service (LOS) standard of D for most county roads. A Capital Improvement and Financing Plan is to be adopted in order to achieve that LOS standard county-wide by 2027. Discretionary development projects would be required to meet the LOS D standard concurrently with development.
- **Conservation and Open Space.** This element combines two of the mandatory elements, describing polices to protect open space and other environmental resources. These portions of the 2007 General Plan aim at preserving lands needed for the managed production of resources (e.g., agricultural lands), protection of public health and safety (e.g., floodplains), outdoor recreation (e.g., parks), and protection of environmental resources (e.g., sensitive natural habitat areas). Additional policies provide for management of key environmental resources such as scenic vistas, wildlife habitats, water resources, historic resources, and air quality. Air quality policies include a commitment to develop and adopt a Greenhouse Gas Reduction Plan to reduce emissions of greenhouse gases to 1990 levels by 2020. The plan would be developed within 24 months of adoption of this general plan. This element also establishes a general prohibition on developing slopes in excess of 30%, and requires that the county establish permitting processes for development on slopes between 25–30% and for agriculture that would convert previously uncultivated lands on slopes exceeding 25%. A ministerial permit process would be established for agriculture that would convert previously uncultivated lands on slopes from 15–24 % and 10–15%.
- **Safety.** This element combines the mandatory Safety and Noise Elements. Its policies encompass public health and safety in relation to such environmental hazards as earthquakes and associated seismically induced hazards, flooding, wildland fire, and soil erosion. Noise policies identify noise-related hazards and include standards to achieve and maintain noise-compatible land use relationships. Among its features, the element calls for development of a “Geologic Constraints and Hazards Database” to allow the county to keep track of seismic, slope, and erosion hazards. Seismic and

geotechnical reports would be required before development could be approved in areas of known hazards. A number of policies address the issue of wildland fire protection, including provisions for adequate fire-fighting water supply, emergency access, project design, and fuel modification zones.

- **Public Services** (optional element). This element sets out standards for public service and utility systems through a set of “Adequate Public Facilities and Services” requirements, including water, wastewater, solid waste, schools, emergency response, road LOS, parks and schools, and storm water drainage. A “Hydrologic Resources Constraints and Hazards Database” would be developed and maintained by the County to make information about these resources easily available. Key policies require concurrency between new development and the installation of infrastructure to serve the development; link development to a long-term sustainable water supply; encourage water supply inventories, protection of groundwater supplies, and water supply planning through a variety of initiatives including a “Capital Implementation and Financing Plan;” work to identify and reduce groundwater overdraft; improve wastewater disposal, including “Onsite Wastewater Management Plans” for areas with high concentrations of development that are currently using septic tanks; enhance the park system; and protect cultural resources.
- **Agricultural** (optional element). This element’s policies identify the ways in which agricultural uses are addressed and include measures designed to protect agriculture operations to help strengthen the agricultural industry. This includes policies encouraging the establishment of well-defined buffer areas between agriculture and incompatible uses; creation of a program, in consultation with the cities, requiring projects that would convert important farmland to mitigate the loss of that acreage, with highest mitigation for the areas of the highest agricultural value; and allowances for “Routine and Ongoing Agricultural Activities,” exempting them from some general plan policies while protecting the environment. The element also establishes an AWCP with policies for enhancing the agriculture and wine industries within three planning areas along Central/Arroyo Seco/River Road, Metz Road, and Jolon Road. The AWCP is discussed in greater detail later in this chapter.
- **Economic Development** (optional element). This element addresses commerce-related matters, such as job creation, workforce training, and business development. It establishes policies that are designed to create jobs and business opportunities to help maintain the existing workforce and improve the business climate in Monterey County.
- **Area and Master Plans** provide more specific, supplemental policies to the 2007 General Plan that addresses unique conditions within a planning area that are not applicable to other areas of the County. Key area and master plan policies in the 2007 General Plan include limiting new development within the Greater Salinas, North County, and Toro Area Plans to a single family residence and accessory building on each lot of record; and limiting residential subdivision in the Carmel Valley Master Plan to creation of 266 new lots with preference to projects including at least 50% affordable housing units.

## 3.3 Monterey County Growth under the 2007 General Plan

### 3.3.1 Analysis Assumptions and Methodology

This EIR will analyze impacts at the 2030 planning horizon and at full buildout in the year 2092. The adopted 1982 General Plan land use map serves as the basis for the following projections. Once adopted, the 2007 General Plan will serve as the basis for population growth projections in unincorporated Monterey County. Given the historic county growth rate and the limitations set out in the 2007 General Plan policies, it would be highly unlikely and next to impossible for every parcel in the County to develop to its maximum potential within the 2030 planning horizon. Therefore, a second analysis is provided of longer-term, full buildout as well.

#### 3.3.1.1 2030 Planning Horizon

The year 2030 is used as the “planning horizon,” reflecting the planning period of the 2007 General Plan. Consistent with the recommendations of the State General Plan Guidelines<sup>1</sup>, Monterey County has chosen a general plan horizon of approximately 20 years. The first analysis will examine impacts between 2006 and 2030.

Growth assumptions contained in this 2007 General Plan for the 2030 planning horizon are derived from population growth forecasts prepared by AMBAG, which is the designated Metropolitan Planning Agency for Monterey, Santa Cruz, and San Benito counties. AMBAG projects growth for the cities and the unincorporated area within each county for purposes of transportation planning and the allocation of regional housing needs. AMBAG’s 2004 projections for population growth in Monterey County through 2030 are summarized in Table 3-1. The projections for 2006 have been adjusted to correct for traffic analysis zones (TAZs) that will be annexed into the cities.

AMBAG’s projections considered growth trends and the availability of water, among other things, 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 not as constrained in terms of water supply. Between 2000 and 2030, AMBAG projects that Monterey County (including the incorporated cities) will grow to a population of approximately 602,731. This translates to an average annual growth rate of about 1.36%. As shown on Table 3-1, AMBAG anticipates that the unincorporated area of the county will lose population between 2005 and 2010 due to city annexations of county territory.

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<sup>1</sup> Office of Planning and Research, 2003 General Plan Guidelines at pp. 13–14.

This EIR considers AMBAG’s growth projections in relation to physical constraints such as potable water supply available (Section 4.11, Public Services and Utilities) and roadway capacity (Section 4.6, Transportation). In order for a future development proposal to be found consistent with the 2007 General Plan, it would need to demonstrate that adequate resources and facilities are available or can be provided. Where projects are found to be consistent with the development density established by the 2007 General Plan and within the scope of the EIR certified for that Plan, additional environmental review will not be necessary unless there are significant effects peculiar to the project, including offsite and cumulative effects, that were not analyzed as significant effects in a previous EIR. (14 Cal. Code Reg. §15183(a)–(d).) An additional requirement for this exemption is that all previously identified feasible mitigation for previously identified significant effects must be implemented or required by the agencies with authority to impose the identified mitigation. Where there are new or more severe impacts peculiar to the project, the impacts must be considered potentially significant and a separate mitigated negative declaration or EIR will be prepared.

**Table 3-1.** 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	110,083	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.

The California Department of Finance also produces population projections for counties. DOF projections for population growth in Monterey County through 2030 are summarized in Table 3-2. DOF anticipates that the County will grow to a total population (including cities) of 529,145 by 2030 (County Department of Finance 2007d). This is 73,586 fewer persons than projected by AMBAG in its 2004 Growth Projections. To be conservative in the evaluation of impacts from implementing the 2007 General Plan, the higher AMBAG projections are being used as the basis for the 2030 growth assumptions used in this EIR’s analyses.



**Table 3-2.** Department of Finance Population Growth Projections

Year	Monterey County Population	Change From Previous (%)	Annual Average (%)
2005	421,211	–	–
2010	433,283	7	0.7
2020	476,642	10	1.0
2030	529,145	11	1.1

Source: State of California Department of Finance 2007d.

### 3.3.1.2 Full Buildout

In order to provide a longer-term view, this EIR will also examine impacts that may occur at “full buildout” of the County; that is, changes from 2006 to 2092. Full buildout is the state in which all existing, undeveloped residential lots of record (total = 4,629) have been built on up to the maximum density allowed by zoning. This includes existing lots of record. At Monterey County’s 2006 through 2030 projected rate of growth (about 417 building permits for residents per year), full buildout is projected to occur in 2092. Impact analyses for 2092 will be qualitative, not quantitative, for the most part because of the uncertainty over what life might be like over 84 years into the future. Residential growth rate was chosen as the indicator of full buildout because it is relatively constant and is easier to extrapolate than other factors. Commercial and industrial parcels were assumed to be fully developed at the same time that housing buildout is reached.

The reader should understand that there is no officially sanctioned population estimate for 2092. The DOF’s most recent long-range population projection goes no farther than 2050. In this July 2007 Report 06 P-1, the DOF projects that by 2050 the total population of Monterey County and its cities will be 646,878 (California Department of Finance 2007). This represents an increase in population of approximately 9.9% per decade for the period from 2000–2050. Assuming that this rate continues further into the future, the total county population in 2092 would be 943,763.

This EIR uses a different method to estimate 2092 population based on using the projected housing unit growth and a fixed persons/housing unit ratio from the AMBAG 2004 projections for 2030. This results in a 2092 population estimate for the County of 937,322 (and 207,424 for the unincorporated County). Interestingly, this amount is roughly consistent with a projection based on the DOF estimated 2050 population.

### 3.3.2 Existing Land Use and Projected Growth

The AMBAG forecasts that Monterey County (including its cities) will add approximately 201,419 residents between 2000 and 2030 (Association of Monterey Bay Area Governments 2004). The population of the unincorporated County (not including the cities) is projected to account for about 40,381 of these new residents. Table 3-3 summarizes the projected increases in population and the historic and projected split of population between cities and the Monterey County. As shown in the table, the percentage of total county residents living in the cities is steadily increasing relative to the number living in unincorporated areas. In 1980, approximately 71% of the total residents lived in cities and 29% in the unincorporated area. By 2006, the ratio of city residents to unincorporated county residents had increased to 76/24. By 2030, the ratio is projected to be 78/22.

**Table 3-3.** Overview of Monterey County Population Growth (including percentage of population)

Area	1980 Population	Estimated 2006 Population(1)	Projected 2030 Population	Projected Buildout Population
Cities	205,947 (71%)	332,699 (76%)	467,356 (78%)	729,898 (78%)
Unincorporated	84,497 (29%)	106,279 (24%)	135,375 (22%)	207,424 (22%)
<b>Total County</b>	<b>290,444 (100%)</b>	<b>438,979 (100%)</b>	<b>602,731 (100%)</b>	<b>932,322 (100%)</b>

(1): 2006 Population for cities and unincorporated adjusted to include areas of future annexations within the City total and to exclude such areas from the unincorporated areas; this allow for accurate estimation of changes in population by jurisdiction for 2030.

Source: Association of Monterey Bay Area Governments 2004. Buildout population prepared by Monterey County as part of the EIR (unincorporated county based on 2007 GP; city growth based on static percentage split continued to assumed buildout year of 2092).

Between 1980 and 2006, Monterey County and its cities added more than 148,500 residents, representing a population increase of about 51%. Monterey County’s total population in 2030 is projected to be 602,731, an increase of 37% over its estimated 2006 population. As illustrated in Table 3-4, as the overall population increased by 51%, the population within the cities grew by about 62% and the population within the unincorporated county by 26%.The County’s overall population is projected to increase by 37% by 2030. As that occurs, the population of the cities is expected to increase by 40%, while the population within the unincorporated County grows by 27%.

This table illustrates a trend for the population to shift toward cities between 1980 and 2005, and this trend is consistent with the 1982 General Plan policies for city-centered growth. Growth projections from AMBAG through 2030 reflect a continuation of this trend.

**Table 3-4.** Percentage Increase in Monterey County Population between 1980–2005 and 2005–2030

Area	1980–2006	2006–2030
Cities	62%	40%
Unincorporated	26%	27%
<b>Total County</b>	<b>51%</b>	<b>37%</b>

The 2006 population estimate was based on AMBAG 2004 estimate, corrected for annexation of Traffic Analysis Zones (TAZs).

Source: Association of Monterey Bay Area Governments 2004.

The following tables summarize existing land uses and the land use changes projected to occur over the 2030 planning horizon and eventual buildout of the county in 2092. Table 3-5 reflects the Monterey County estimates for population and housing and employment projected in the 2030 planning horizon and buildout in the year 2092. Table 3-6 reflects the approximate extent of existing land uses, by planning area. Table 3-7 reflects existing land use by community area and rural center. Table 3-8 reflects new growth anticipated within the planning areas, community areas, and rural centers. Table 3-9 reflects the type of new growth anticipated.

**Table 3-5. Monterey County 2030 and Buildout-Estimated Population and Housing**

Inland	2000 <sup>a</sup>	2005 <sup>a</sup>	2006 Adjusted <sup>b</sup>	AMBAG 2030 <sup>a</sup>	GP Buildout <sup>c</sup>	2006– 2030	2006 to Buildout	2030 to Buildout
<b>Housing Units</b>								
Unincorporated County	37,047	40,006	38,655	48,670	74,573	10,015	35,918	25,903
Incorporated Cities <sup>d</sup>	92,531	98,374	101,520	138,331	216,040	36,811	114,520	77,709
<b>Total</b>	<b>129,578</b>	<b>138,380</b>	<b>140,175</b>	<b>187,001</b>	<b>290,613</b>	<b>46,826</b>	<b>150,438</b>	<b>103,612</b>
<b>Population</b>								
Unincorporated County <sup>e</sup>	100,252	110,083	106,279	135,375	207,424	29,096	101,145	72,049
Incorporated Cities <sup>f</sup>	301,060	322,517	332,699	467,356	729,898	134,657	397,199	262,542
<b>Total</b>	<b>401,312</b>	<b>432,600</b>	<b>438,979</b>	<b>602,731</b>	<b>937,322</b>	<b>163,752</b>	<b>498,344</b>	<b>334,591</b>
<b>Employment</b>								
Unincorporated County <sup>g</sup>	68,915	73,389	70,384	97,113	148,798	26,729	78,414	55,333
Incorporated Cities <sup>f</sup>	153,526	165,583	172,100	238,268	372,118	66,168	200,018	130,202
<b>Total</b>	<b>222,441</b>	<b>238,972</b>	<b>242,484</b>	<b>335,381</b>	<b>520,916</b>	<b>92,897</b>	<b>278,432</b>	<b>185,535</b>

Sources:

- <sup>a</sup> Association of Monterey Bay Area Governments 2004.
- <sup>b</sup> Scaled on 00–05 and adjusted to place TAZs for future annexations in City totals..
- <sup>c</sup> Buildout amount for unincorporated County determined based on 2007 GP. Buildout year determined by applying unit rate of growth (417/year) in unincorporated County after 2030. Buildout year calculated as 2092.
- <sup>d</sup> Cities—AMBAG 2004 projection used for 2030; For buildout used 3 times County units based on AMBAG 2008 estimated City (75%)/County (25%) split.
- <sup>e</sup> Unincorporated County—Population based on AMBAG 2030 estimate of 2.78 persons/unit for 2030 and buildout population estimates.
- <sup>f</sup> Cities—Used AMBAG 2030 estimated 3.38 persons/unit for 2030 and buildout population estimates.
- <sup>g</sup> County—Used AMBAG 2030 estimated 0.72 persons/job for 2030 and buildout employee estimates.

**Table 3-6.** Existing Land Use by Planning Area in Monterey County (2006—Based on Parcel Data)

	Total Area (Acres)	Residential Acres	Commercial Acres	Industrial Acres	Agricultural Acres	Resource Conservation	Public/ Quasi-Public	Other
<b>PLANNING AREA</b>								
Cachagua	135,269	4,119	171	40	58,518	1,719	58,891	11,811
Carmel Valley	27,798	7,048	928	10	797	3,226	2,613	13,176
Central Salinas Valley	533,580	5,115	1,001	2,821	429,538	2,660	80,605	11,840
Fort Ord	0	–	–	–	0	–	–	–
Greater Monterey Peninsula	79,125	4,225	2,334	40	–	20,754	34,175	17,597
Greater Salinas	92,220	2,184	274	1,407	82,749	657	1,033	3,916
North County	30,731	9,709	200	251	16,043	168	798	3,562
South County	815,645	11,230	71	103	571,211	628	205,296	27,106
Toro	48,302	6,937	114	108	26,945	2,150	5,051	6,997
Inland Subtotals	1,762,670	50,567	5,093	4,780	1,185,801	31,962	388,462	96,005
Coastal/Non-Coastal Areas	109,311	1	84	–	17	78	108,070	1,061
<b>Total Inland County</b>	<b>1,871,981</b>	<b>50,568</b>	<b>5,177</b>	<b>4,780</b>	<b>1,185,818</b>	<b>32,040</b>	<b>496,532</b>	<b>97,066</b>
<b>Coastal Areas</b>	<b>197,343</b>							
<b>Cities</b>	<b>41,055</b>							
<b>Total County</b>	<b>2,110,379</b>							

**Table 3-7.** Existing Land Use by Community Area and Rural Center in Monterey County (2006—Based on Parcel Data)

	Total Area (Acres)	Residential Acres	Commercial Acres	Industrial Acres	Agricultural Acres	Resource Conservation	Public/ Quasi-Public	Other
<b>COMMUNITY AREA</b>								
Boronda	342	131	13	28	89	–	21	60
Castroville	868	177	35	150	330	–	34	142
Chualar	315	22	4	5	215	–	12	57
Fort Ord	18,730	4	–	–	1	–	18,724	1
Pajaro	218	42	34	42	18	–	15	67
<b>Total</b>	<b>20,472</b>	<b>375</b>	<b>86</b>	<b>225</b>	<b>653</b>	<b>0</b>	<b>18,806</b>	<b>327</b>
<b>RURAL CENTER</b>								
San Lucas	128	22	1	7	55	–	7	37
Bradley	51	21	1	–	16	–	4	9
Lockwood	353	64	1	–	141	–	8	139
Pine Canyon	774	267	5	–	24	–	12	466
Pleyto	295	147	53	–	–	–	–	96
River Road	2,866	641	9	–	110	–	29	2,077
San Ardo	73	25	4	1	4	–	11	29
<b>Total</b>	<b>4,411</b>	<b>1,165</b>	<b>72</b>	<b>1</b>	<b>294</b>	<b>0</b>	<b>64</b>	<b>2,815</b>

**Table 3-8.** New Growth by Planning Area, Community Area and Rural Center, 2006–2030 and 2092 Buildout

Inland Areas	Total Area (Acres)	Vacant Residential Lots	Potential New Buildout Units	Potential New 2030 Units	New Buildout Commercial (Acres)	New Commercial by 2030 (Acres)	New Buildout Industrial (Acres)	New Industrial by 2030 (Acres)	Notes
<b>CACHAGUA</b>									
Cachagua	136,580	263	132	18	22	5	0	0	
Subtotal	136,580	263	132	18	22	5	0	0	
<b>CARMEL VALLEY</b>									
Carmel Valley	26,736	492	758	101	239	52	0	0	0 Not including housing overlay area. Policy CV-1.6 allows 266 new subdivided lots.
Carmel Mid-Valley AHO	40	0	390	149	0	0	0	0	0 Assume approximately 13 acres of land likely for development with max 30 du/ac density.
Subtotal	26,736	492	1,148	251	239	52	0	0	
<b>CENTRAL SALINAS VALLEY</b>									
Central Salinas Valley	545,022	357	456	61	323	70	140	21	21 Not including cities, community areas, rural centers.
Chualar CA	350	20	1,500	574	4	2	27	65	65 Boundary TBD. Estimates based on expanding existing town by 350 acres (200 acres residential, 50 acres commercial, 25 acres industrial).
Pine Canyon RC	766	35	1,704	652	5	2	0	0	
San Lucas RC	155	71	169	65	2	1	32	77	
Subtotal	545,022	483	3,829	1,352	334	75	199	163	

Inland Areas	Total Area (Acres)	Vacant Residential Lots	Potential New Buildout Units	Potential New 2030 Units	New Buildout Commercial (Acres)	New Commercial by 2030 (Acres)	New Buildout Industrial (Acres)	New Industrial by 2030 (Acres)	Notes
<b>FORT ORD</b>									
Fort Ord	19,138	0	8,610	3,295	226	88	0	0	
Subtotal	19,138	0	8,610	3,295	226	88	0	0	
<b>GREATER MONTEREY PENINSULA</b>									
Greater Monterey Peninsula	57,056	642	3,995	534	62	13	0	0	Acreage for entire area. 2030/Buildout numbers do not including cities or housing overlay area.
Hwy 68/Airport AHO	130	1	2,550	976	0	0	0	0	Assume approximately 85 acres of land likely for development with max 30 du/ac density.
Subtotal	57,056	643	6,545	1,510	62	13	0	0	
<b>GREATER SALINAS</b>									
Greater Salinas	105,242	406	1,395	187	160	35	1,528	226	Acreage for planning area. 2030/Buildout numbers do not including cities and community areas. Includes Butterfly Village.
Boronda CA	353	116	726	278	69	27	96	231	
Subtotal	105,242	522	2,121	464	229	62	1,624	457	Policy GS-1.13 limits development in area north of Salinas.
<b>NORTH COUNTY</b>									
North County	30,910	577	3,260	436	238	50	40	6	Acreage for planning Area. 2030/Buildout numbers do not including community areas.
Pajaro CA	256	64	676	259	38	15	122	293	
Castroville CA	1,058	234	1,632	625	0	0	344	827	



Inland Areas	Total Area (Acres)	Vacant Residential Lots	Potential New Buildout Units	Potential New 2030 Units	New Buildout (Acres)	New Commercial by 2030 (Acres)	New Buildout Industrial (Acres)	New Industrial by 2030 (Acres)	Notes
Subtotal	30,910	875	5,568	1,319	266	65	506	1,126	Policy NC-1.5 limits development in all North County.
<b>SOUTH COUNTY</b>									
South County	820,628	746	939	126	77	17	8,713	1,290	Acreage for planning area. 2030/Buildout numbers do not include rural centers.
Bradley RC	65	30	800	306	3	1	0	0	
Lockwood RC	353	10	221	85	131	51	0	0	
Pleyto RC	441	16	160	61	152	59	0	0	
San Ardo RC	119	47	480	184	13	5	26	62	
Subtotal	820,628	849	2,600	761	376	133	8,739	1,352	
<b>TORO</b>									
Toro	47,263	251	4,046	541	41	9	90	13	Acreage for planning area. 2030/buildout numbers do not include rural center or housing overlay area.
River Road RC	630	251	389	149	0	0	0	0	
Hwy 68/Reservation AHO	31	0	930	356	0	0	0	0	Assume all 31 acres of land likely for development with max 30 du/ac density.
Subtotal	47,263	502	5,365	1,046	41	9	90	13	Policy T-1.7 limits development in Highway 68 corridor.
<b>TOTAL INLAND AREAS</b>	<b>1,788,575</b>	<b>4,629</b>	<b>35,918</b>	<b>10,015</b>	<b>1,795</b>	<b>500</b>	<b>11,158</b>	<b>3,111</b>	<b>Not including cities</b>

**Table 3-9.** New Growth by Type, 2006–2030 and Buildout

Inland Area	Total Area (Acres)	Vacant Residential Lots	Potential Buildout Units	Potential 2030 Units	New Buildout Commercial (Acres)	New Commercial by 2030	New Buildout Industrial (Acres)	New Industrial by 2030	Notes
<b>COMMUNITY AREAS</b>									
Chualar CA	350	20	1,500	574	4	2	27	65	Boundary TBD. Estimates based on expanding existing town by 350 acres (200 acres residential, 50 acres commercial, 25 acres industrial).
Fort Ord CA	19,138	0	8,610	3,295	226	88	0	0	Fort Ord Reuse Plan = Master Plan = CA
Boronda CA	353	116	726	278	69	27	96	231	
Pajaro CA	256	64	676	259	38	15	122	293	
Castroville CA	1,058	234	1,632	625	0	0	344	827	
Subtotal	21,155	434	13,144	5,030	337	131	589	1,416	
<b>RURAL CENTERS</b>									
Pine Canyon RC	766	35	1,704	652	5	2	0	0	
San Lucas RC	155	71	169	65	2	1	32	77	
Bradley RC	65	30	800	306	3	1	0	0	
Lockwood RC	353	10	221	85	131	51	0	0	
Pleyto RC	441	16	160	61	152	59	26	62	
San Ardo RC	119	47	480	184	13	5	6	1	
River Road RC	630	251	389	149	0	0	0	0	
Subtotal	2,529	460	3,923	1,501	306	119	58	139	

Inland Area	Total Area (Acres)	Vacant Residential Lots	Potential Buildout Units	Potential 2030 Units	New Buildout Commercial (Acres)	New Commercial by 2030	New Buildout Industrial (Acres)	New Industrial by 2030	Notes
<b>AHOS</b>									
Carmel Mid-Valley AHO	40	0	390	149	0	0	0	0	Assume approximately 13 acres of land likely for development with max 30 du/ac density.
Hwy 68/Airport AHO	130	1	2,550	976	0	0	0	0	Assume approximately 85 acres of land likely for development with max 30 du/ac density.
Hwy 68/Reservation AHO	31	0	930	356	0	0	0	0	Assume all 31 acres of land likely for development with max 30 du/ac density.
Subtotal	201	1	3,870	1,481	3	1	0	0	
Total of CA, RA, AHOs	23,885	895	20,937	8,012	643	250	647	1,556	
<b>UNINCORPORATED OUTSIDE OF CA, RA, AHOS</b>									
Cachagua	136,580	263	132	18	22	5	0	0	
Carmel Valley	26,736	492	758	101	239	52	0	0	
Central Salinas Valley	545,022	357	456	61	323	70	140	21	
Greater Monterey Peninsula	57,056	642	3,995	534	62	13	0	0	
Greater Salinas	105,242	406	1,395	187	160	35	1,528	226	
North County	30,910	577	3,260	436	228	50	40	6	
South County	820,628	746	939	126	77	17	8,713	1,290	
Toro	47,263	251	4,046	541	41	9	9	13	

Inland Area	Total Area (Acres)	Vacant Residential Lots	Potential Buildout Units	Potential 2030 Units	New Buildout Commercial (Acres)	New Commercial by 2030	New Buildout Industrial (Acres)	New Industrial by 2030	Notes
Subtotal	1,769,437	3,734	14,981	2,003	1,152	250	10,511	1,556	
<b>INLAND AREA TOTAL</b>	<b>1,793,322</b>	<b>4,629</b>	<b>35,918</b>	<b>10,015</b>	<b>1,795</b>	<b>500</b>	<b>11,158</b>	<b>3,111</b>	
2030 new growth assumed in CA/RC/AHO			80%	8,012	50%	250	50%	1,556	
2030 new growth assumed not in CA/RC/AHO			20%	2,003	50%	250	50%	1,556	
Percent of new growth by 2030			28%	10,015	28%	500	28%	3,111	

## 3.4 General Plan Characteristics

This EIR addresses the environmental effects associated with implementation of the 2007 General Plan. The 2007 General Plan's policies provide a balanced pattern of growth that accommodates the demand for housing, employment opportunities, and public facilities and services while minimizing the adverse impacts of increased urban development. The 2007 General Plan contains general goals and policies to guide future growth in the unincorporated areas and ensure that new and existing development is served with adequate public services and facilities.

### 3.4.1 Summary of General Plan Components

As depicted on Exhibit 3.1, Monterey County is divided into eight inland and four coastal planning areas designed to reflect geographical areas where there are common physical conditions.

Table 3-10 provides a summary of the planning areas within the Coastal and Inland areas of the County.

**Table 3-10.** Summary of General Plan Components

Plan	Acreage
North County Area Plan	30,910
Greater Salinas Area Plan	105,242
Central Salinas Valley Area Plan	545,022
Greater Monterey Peninsula Area Plan (Including Carmel Valley)	83,792
Toro Area Plan	47,263
Cachagua Area Plan	136,580
South County Area Plan	820,628
Coastal/Non-Coastal Areas*	109,311
<b>Inland Subtotal</b>	<b>1,878,748</b>
North County Land Use Plan	145,837
Del Monte Land Use Plan	8,473
Carmel Land Use Plan	4,172
Big Sur Coastal Land Use Plan	38,861
<b>Coastal Subtotal</b>	<b>197,343</b>
<b>County Total</b>	<b>2,076,091</b>

\* The term "Coastal/Non-Coastal Areas" refers to lands within the Los Padres National Forest.

Source: Monterey County.

Planning activities that occur in the inland, unincorporated portions of the County are solely under the jurisdiction of the County of Monterey. Planning activities within the unincorporated Coastal Zone are under the jurisdiction of the County of Monterey, subject to its certified LCP, with appeal to the California Coastal Commission in certain circumstances. The 2007 General Plan Update does not apply to coastal areas.

### 3.4.2 Land Use Groups

The land use designations of the 2007 General Plan fall within six land use categories. These land use categories are summarized in Table 3-11. Exhibits 3.2, 3.2a, 3.2b, and 3.2c illustrate the generalized land uses proposed by the 2007 General Plan.

**Table 3-11.** Land Use Categories

Category	Types of Uses
Residential	Includes Rural, Low-, Medium-, and High-Density Residential.
Commercial	Includes General Commercial, Light Commercial, Heavy Commercial, Neighborhood Commercial, Planned Commercial, and Visitor Accommodations/Professional Office Space.
Industrial	Includes Agricultural Industrial, Light Industrial, and Mineral Extraction.
Agricultural	Includes Farmland, Permanent Grazing, and Rural Grazing.
Resource Conservation	Includes Resource Conservation, Open Space, Rivers, and Water Bodies.
Public/Quasi-Public	Includes Federal, State, and locally owned lands such as National Forests, State Parks, and Regional Parks, and publicly or privately owned uses such as schools, public works facilities, and hospitals that serve the public at large.

Source: Monterey County General Plan Land Use Element 2007.

### 3.4.3 Overlays

In addition to the land use groups, the 2007 General Plan also includes overlays. These overlays include Master Plan, Community Plan, Agricultural Winery Corridor Plan, Special Treatment Area, and Urban Reserve. A brief description of each overlay designation is provided below. Exhibit 3.3 illustrates the Community Areas, Rural Centers, Affordable Housing Overlay Districts, and Agricultural Winery Corridor.

- Community Area:** This overlay identifies the boundaries of existing unincorporated communities and preferred locations for additional development to support a mix of land use types at an urban level. Policies of the 2007 General Plan identify the Community Areas as the primary locations for future development within the unincorporated area, concurrent

with infrastructure improvements. While the 2007 General Plan includes general policies for development within the Community Areas, a specific development plan will eventually be adopted for each area that establishes distinctive development policies. Specific Plans for East Garrison (part of Fort Ord Community Area) and Castroville, adopted October 4, 2005, and in 2007, respectively, would serve as Community Plans for those areas upon adoption of the 2007 General Plan. More information about Community Plans follows.

- **Rural Center:** A Rural Center overlay identifies the boundaries of an existing concentration of development that has the potential to develop into a future Community Area. The Rural Centers are existing locations that are already developed with higher-intensity land uses than are typical for rural areas. The 2007 General Plan policies identify the Rural Centers as secondary points for future development within the County, concurrent with infrastructure improvements. More information about Rural Centers follows.
- **Special Treatment/Study Area:** The Special Treatment overlay is intended to provide specific direction for future development in an area based on site-specific considerations or constraints. Study Areas are designated for areas where the County desires to look further at the constraints of an area to determine if a Special Treatment Area should be established and to what extent. More information about Special Treatment Areas follows.
- **Urban Reserve:** The Urban Reserve overlay identifies unincorporated islands that are within incorporated cities.
- **Master Plan:** Master Plans are used to identify unique policies for delineated geographic areas within the County. This applies to the Carmel Valley and Fort Ord Master Plan areas.
- **Agricultural Winery Corridor Plan:** The AWCP overlay identifies lands along three travel corridors within which wineries and related business and tourist-serving facilities would be encouraged to locate. More information about the AWCP follows.
- **Affordable Housing Overlay Districts:** The AHO identifies areas that are suitable for the development of affordable and workforce housing projects. 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. Three AHOs have been identified in the 2007 General Plan: Mid-Carmel Valley; Highway 68/Monterey Peninsula Airport; and Reservation Road/Highway 68. In addition, Community Areas prior to adoption of a Community Plan and Rural Centers prior to the adoption of an Infrastructure and Financing Study are designated as AHOs.

### 3.4.4 Countywide Land Use

Land use in unincorporated Monterey County is primarily agricultural, with large areas of public and quasi-public lands. Urban land uses represent approximately 3% of the total unincorporated area. Table 3-12 summarizes the existing land

cover in unincorporated Monterey County as of 2006, as well as the land use groups of the 2007 General Plans.

**Table 3-12.** Countywide General Plan Land Use Designations

Land Use	Acres	Percent of Total
Residential	47,887	3%
Commercial	1,606	0%
Industrial	8,049	0%
Agricultural	1,176,386	63%
Resource Conservation	390,984	21%
Public/Quasi-Public	212,882	11%
Other	15,531	1%
<b>Total</b>	<b>1,853,326</b>	<b>100%</b>

Note: These totals do not match the parcel data described above for existing land uses due to differences in how the parcel data categorizes use and how the acreage is determined.

Table 3-13 summarizes the existing population, dwelling units, and employment within the entire General Plan planning area (as of 2006), as well as the development potential for the 2007 General Plan.

**Table 3-13.** General Plan Planning Area Population, Housing, and Employment

Land Use	2006 Estimate	2007 General Plan Land (2030)
Population	106,279 persons	135,375 persons
Housing	38,665 dwelling units	48,670 dwelling units
Employment	70,384 jobs	97,113 jobs

Note: 2006 estimate based on the 2004 AMBAG estimate, with growth extrapolated an additional year and adjusted for future annexations. This does not include areas within the incorporated cities.

As of January 2006, there were 4,629 undeveloped residential parcels in the inland portion of unincorporated Monterey County, including many large agricultural land holdings. Given the limitations on development in the North County, Greater Salinas, and Toro Area Plans and the cap on new units in the Carmel Valley Master Plan, the County estimates that up to 10,015 new residential units would be built within the unincorporated area between 2006 and the end of the 2030 planning horizon. Up to 35,918 residential units would be built in the unincorporated areas by 2092 (full buildout) if sufficient water supply and other services are available.



## **3.4.5 Area Plans**

The 2007 General Plan contains eight Area Plans for the inland portion of the County, which are described below in further detail and depicted in Exhibit 3.1. Each Area Plan contains supplemental policies that guide, or conversely, limit growth within its boundaries. The Greater Monterey Peninsula Area Plan contains the Carmel Valley Master Plan within its boundaries.

The following discussion provides a description of each Area Plan. The Coastal/Non-Coastal area noted in Table 3-10 has no Area Plan and is the only portion of the County that does not have an Area Plan with supplemental policies.

The existing land uses for each area were presented in Tables 3-6 and 3-7 above. The estimated new growth in each area under the proposed 2007 General Plan is shown in Tables 3-8 and 3-9 above.

### **3.4.5.1 North County Area Plan**

#### **Description**

The North County Area Plan comprises approximately 49 square miles. The northern and eastern boundaries are the Santa Cruz and San Benito County lines, respectively (Exhibit 3.4). The northern County line follows the Pajaro River. Monterey Bay borders the area to the west. The Salinas River and the communities of Castroville and Prunedale are located adjacent to the southern boundary of this area. Unincorporated communities in this Area Plan include Aromas, Castroville, Pajaro, and Prunedale. The Greater Salinas Area Plan and the Greater Monterey Peninsula Area Plan border the North County Area Plan to the south.

Significant geographic features in this area include: the Gabilan Mountain Range, to the east, which reaches a peak elevation of 3,171 feet; steep ravines and slopes, which exceed 75% in places; the Pajaro Valley, and the Pajaro and Salinas Rivers.

#### **Cities**

None.

#### **Community Areas**

Pajaro and Castroville.

## **Rural Centers**

None.

## **Special Treatment Areas**

None.

## **Land Use**

The 2007 General Plan provides that development on properties with residential land use designations located within the North County Area Plan will be limited to the first single family dwelling on a legal lot of record. This restriction does not apply to development within the adopted Community Areas.

### **3.4.5.2 Greater Salinas Area Plan**

#### **Description**

The Greater Salinas Area Plan comprises approximately 143 square miles. This Area Plan is bordered by the Greater Monterey Peninsula Area Plan (west); the inland portion of the North County Area Plan (north); San Benito County (east); and the Central Salinas Valley and Toro Area Plans (south); (Exhibit 3.5). The City of Salinas (population 148,350) occupies approximately 18 square miles of this Area Plan and is the largest city in Monterey County. Unincorporated communities include Boronda, the historic community of Spreckels, and the migrant farming community of San Jerardo.

Significant geographic features in this area include Fremont Peak, located to the east and at an elevation of approximately 3,171 feet above mean sea level, and Mount Toro to the west and at an elevation of approximately 3,560 feet. The Salinas River traverses this area plan southeast to northwest.

#### **Cities**

Salinas.

#### **Community Areas**

Boronda.

## Rural Centers

None.

## Special Treatment Areas

### Butterfly Village

Approximately 671 acres located north of San Juan Grade Road and east of Harrison Road. It authorizes a planned development including:

- Public park including trails.
- Public parking lot for public facilities.
- Open space to preserve sensitive habitat areas.
- Community health and wellness center that offers a variety of health, fitness and nutrition uses.
- Public facilities, including fire/sheriff substation, library, maintenance yard, wastewater treatment facility, and a school site.
- Neighborhood Commercial, including mixed use development, to help provide a jobs-housing balance within the project.
- Up to 1,147 residential units for various income levels with at least 32% at affordable/workforce levels including but not limited to senior living facilities.

### Spence/Potter/Encinal Road

This Special Treatment Area (STA) is intended to permit on-site, soil-dependent agricultural operations such as greenhouses. Subdivisions would be limited to 10 acres minimum parcel size, with residential uses allowed only on parcels of 40 acres or more. Residential development rights created by subdivision are to be dedicated to the County or a qualified non-profit conservation organization.

### Highway 68/Foster Road Area

This site is intended to be used as a visitor farm. It would be subject to restrictions on the sale of produce at the on-site produce stand.

### Natividad/Rogge Road

This STA is intended to permit on-site, soil-dependent agricultural operations such as greenhouses. Subdivisions would be restricted.

### Jefferson

Residential development will be permitted at the maximum equivalent density of 2.5 acres per unit on 40 acres in order to contribute to meeting the affordable housing goals on the peninsula. Development would be required to meet minimum setback requirements and provide adequate buffers from the Marina landfill, meet all requirements of the Marina Airport Comprehensive Land Use

Plan, and a minimum of 50% of the units developed on this site shall meet Affordable/Workforce Housing criteria.

## **Land Use**

The 2007 General Plan provides that development on properties with residential land use designations located within the Greater Salinas Area Plan north of the City of Salinas generally between Williams Road and Highway 101 will be limited to the first single family home on a legal lot of record. This restriction does not apply to development within the adopted Community Area.

### **3.4.5.3 Central Salinas Valley Area Plan**

#### **Description**

The Central Salinas Valley Area Plan comprises approximately 840 square miles. This Area Plan includes the incorporated cities of Gonzales (population 8,455), Soledad (population 28,075), Greenfield (population 15,335), and King City (population 11,333) (Exhibit 3.6). Smaller communities in the unincorporated area include Chualar, Arroyo Seco, Pine Canyon (King City), and San Lucas. The Central Salinas Valley Area Plan contains roughly all land between Chualar in the north to San Lucas in the south. The San Benito County line forms the eastern boundary, while the Hunter Liggett Military Reservation and Los Padres National Forest border the Area Plan to the west. The Salinas River bisects this geographic area, and the Arroyo Seco River joins the Salinas River about midway through this Area Plan. Adjacent Area Plans consist of the Cachagua and Toro Area Plans (west); the Greater Salinas Area Plan (north); the South County Area Plan (west and south).

The most prominent feature in this area is the floor of the Salinas Valley, which is 4 miles wide in King City and expands to 9 miles in width in Greenfield. Junipero Serra Peak's elevation is 5,862 feet and it is the highest point in this Area Plan.

#### **Cities**

Gonzales, Greenfield, King City, Soledad.

#### **Community Areas**

Chualar.

## **Rural Centers**

Pine Canyon (King City), San Lucas.

## **Special Treatment Areas**

### **Spence/Potter/Encinal Road**

See the discussion under the Greater Salinas Area Plan.

### **Paraiso Hot Springs**

Recreation and visitor serving land uses for the Paraiso Hot Springs Special Treatment Area may be permitted in accordance with a general development plan and other discretionary approvals such as subdivision maps, use permits and design approvals. The Special Treatment Area may include such uses as a lodge, individual cottages, a visitor center, recreational vehicle accommodations, restaurant, shops, stables, tennis courts, aquaculture, mineral water bottling, hiking trails, vineyards, and orchards. The general development plan will address fire safety, access, sewage treatment, water quality, water quantity, drainage, and soil stability issues.

### **Old Mission Union School**

The Old Mission Union School STA would conditionally allow winery-related facilities including a food service, gift shop, and a reception hall. The facilities will be subject to the review and requirements of the Monterey County Public Works Department, Director of Environmental Health, Flood Control and Water Conservation District, and Director of Planning.

### **Lohr**

The Lohr property is designated as an STA to enable two adjoining 20-acre parcels to be reconfigured into a 39-acre parcel and a one (1) acre parcel to enhance the agricultural capabilities of the land. The Lohr property will be rezoned to prohibit further subdivision. Deed restrictions will also be implemented to prohibit further subdivision in the special treatment area.

### **Millers Lodge**

This STA is adopted to recognize historical day use, camping, recreation, and residential uses that have been present on the parcel since the 1940s. Special Treatment will allow the owners to apply for a use permit and general development plan. This policy shall not permit expansion or intensification of the Miller's Lodge property beyond what is currently developed (adoption of the 2007 General Plan), nor allow any new uses not already occurring on the site.

### **3.4.5.4 Greater Monterey Peninsula Area Plan**

#### **Description**

The Greater Monterey Peninsula Area Plan comprises approximately 115 square miles. The Greater Monterey Peninsula Area Plan is bordered by the North County and Greater Salinas Area Plans to the north, the Toro and Cachagua Area Plans on the east, and the Del Monte Forest, Carmel, and Big Sur Coast Land Use Plan areas to the west and south (Exhibit 3.7). The former Fort Ord military reservation and a portion of the Los Padres National Forest are located in this Area Plan. Approximately 17% of the Area Plan is within the cities of Carmel-by-the-Sea (population 4,038), Del Rey Oaks (population 1,622), Marina (population 18,824), Monterey (population 30,161), Pacific Grove (population 15,305), Sand City (population 300), and Seaside (population 34,454). The remaining 73,480 acres are located in the unincorporated portion of the County. Distinct geographic areas in the unincorporated area include the former Fort Ord, Laguna Seca, Bay Ridge, Hidden Hills, Aguajito, the Monterey Peninsula Country Club (non-coastal area of Pebble Beach), lower and mid-Carmel Valley, and Carmel Valley Village.

The topography in this Area Plan varies, ranging from level land at the mouth of Carmel Valley to extremely steep slopes, which form the south wall of upper Carmel Valley. The highest point in this Area Plan is Mt. Carmel, with an elevation of 4,417 feet and located in the southern portion of this area.

#### **Cities**

Carmel-by-the-Sea, Del Rey Oaks, Marina, Monterey, Pacific Grove, Sand City, and Seaside.

#### **Community Areas**

Fort Ord (within Fort Ord Master Plan).

#### **Rural Centers**

None.

#### **Special Treatment Areas**

##### **Rancho San Carlos**

Residential development is permitted on the portions of the Santa Lucia Preserve (formerly Rancho San Carlos) within the Greater Monterey Peninsula Planning Area, and will follow densities and policies as specified in Board of Supervisor

Resolution No. 93-115, “Comprehensive Planned Use” Overlay for Rancho San Carlos and the Comprehensive Development Plan for the Santa Lucia Preserve.”

#### **White Rock Club**

Development will be subject to the policies of the Rural Grazing land use designation. The existing recreational facilities, consisting of 100 cabin sites and one gatehouse, can be maintained and remodeled. No additional cabin sites will be allowed, nor will than more than eight of the 100 cabin sites be occupied year round for the maintenance and operations.

#### **San Clemente Ranch**

The existing recreational facilities, consisting of 101 cabin sites, 5 permanent residents, tennis courts, swimming pool and fishing ponds are allowed uses. No additional cabin sites shall be allowed. Reconstruction, remodeling or rebuilding of approved cabins or development of new cabins on approved cabin sites will be allowed, with appropriate Planning and Building Inspection Department and Health Department permits.

#### **Jefferson**

See the discussion under the Greater Salinas Area Plan.

### **3.4.5.5 Carmel Valley Master Plan**

The Carmel Valley Master Plan area is within the Greater Monterey Peninsula Area Plan. The Master Plan area is approximately 41 square miles, extends west from Highway 1 to Carmel Valley Village in the east, and includes the valley floor as well as the upland areas that face the valley (Exhibit 3.8).

At the time of this writing, a request to incorporate the proposed Town of Carmel Valley is pending before the Monterey County Local Agency Formation Commission. The proposed boundaries of the Town are co-terminus with the boundaries of the Carmel Valley Master Plan, with the inclusion of the Sleepy Hollow subdivision, which is currently in the Cachagua Area Plan discussed below. Incorporation of the town would be contingent upon approval of the community’s voters. Should a simple majority of the electorate approve the incorporation proposal, the new Town would assume authority over land use decisions within its boundaries.

#### **Cities**

None.

#### **Community Areas**

None.

## **Rural Centers**

None.

## **Special Treatment Areas**

### **Carmel Valley Ranch**

This encompasses the Amended Carmel Valley Ranch Specific Plan, dated November 3, 1976. However, attainment of densities authorized by the Specific Plan is dependent upon conditions existing at the time each future increment of development is sought and is further dependent upon conformity with the Specific Plan Amended Conditions of Approval as well as the goals and policies of this General Plan, whichever is most restrictive. Any amendment of the Specific Plan must be consistent with the policies and provisions of this General Plan.

### **Condon/Chugach Property**

In recognition of the unique circumstances of the property, including the past gift conveyances of several hundred acres to Garland Park, the Condon/Chugach property will be allowed to be subdivided into four parcels consistent with the 2004 Subdivision Ordinance.

### **Rancho San Carlos**

See the discussion under the Greater Monterey Peninsula Area Plan.

### **Rancho Canada Village**

This area consists of about 40 acres located generally between Val Verde Drive and the Rancho Canada Golf Course clubhouse, from the Carmel River to Carmel Valley Road, excluding portions of properties in floodplain. Residential development may be allowed with a density of up to 10 units/acre and will provide a minimum of 50% Affordable/Workforce Housing. Prior to beginning new residential development (excluding the first unit on an existing lot of record), projects must address environmental resource constraints (e.g., water, traffic, flooding).

## **Land Use**

Under the 2007 General Plan, new residential subdivision in Carmel Valley will be limited to creation of 266 new lots with preference to projects including at least 50% affordable housing units. The County will develop a tracking system and present an annual report before the Planning Commission to enable them to enforce this limit.



### 3.4.5.6 Fort Ord Community Area

The Fort Ord Master Plan area (Exhibit 3.9) encompasses the former Fort Ord military installation near the City of Marina and the City of Seaside. The Fort Ord Reuse Authority has previously prepared a reuse plan for the former base which also serves as the Fort Ord Master Plan.

#### Cities

None.

#### Community Areas

Fort Ord.

#### Rural Centers

None.

#### East Garrison Specific Plan

The East Garrison Specific Plan, which was adopted by the Monterey County Board of Supervisors in October 2005, would serve as the Community Plan to establish policies and guidelines for future growth in a portion of the Fort Ord Community Area. This plan includes 1,470 dwelling units, 75,000 square feet of commercial uses, and 49 acres of parks, open space, and natural areas. The land uses contemplated in East Garrison are summarized in Table 3-14.

**Table 3-14.** East Garrison Specific Plan Land Uses

Land Use	Acreage	Notes
Residential	98.3	A maximum of 1,470 dwelling units is allowed.
Town Center	7.9	Includes 75,000 square feet of commercial uses.
Public Use/Cultural	10.1	Contains 11,000 square feet of public use and 100,000 square feet of art/cultural/educational uses.
Parks and Open Space	49.5	Contains 12.7 acres of improved parks, 23.9 acres of open space, and 12.9 acres of natural areas.
Roadways	78.6	Includes streets, lanes, and Reservation Road.
<b>Total</b>	<b>244.4</b>	

Source: County of Monterey, East Garrison Specific Plan, adopted October 4, 2005.

### **3.4.5.7 Toro Area Plan**

The Toro Area Plan (Exhibit 3.10) comprises approximately 74 square miles and is located in the north-central area of Monterey County. Toro includes the communities of Toro Park, Las Palmas, River Road (Indian Springs Ranch, Berry Drive, Heritage Ranch, etc.), Pine Canyon (Salinas), and San Benancio/Corral de Tierra. The Fort Ord Master Plan abuts the planning area on the northwest side and the Salinas River forms the northeast boundary with the Greater Salinas Area Plan. A ridgeline defines the south and southwest boundary adjacent to the Greater Monterey Peninsula Area Plan, Carmel Valley Master Plan, and Cachagua Area Plan. Mt. Toro is the highest peak in this geographic area with an elevation of 3,560 feet. Adopted in 1983, the Toro Area Plan is the oldest of all the area/land use plans. There are no incorporated cities located in this Area Plan.

Most of the Toro area is dominated by the mountains and rolling hills of the Sierra de Salinas Range. Relatively flat areas are located along the Salinas River and El Toro Creek. Topography in this area includes steep ravines with slopes exceeding 75%, tapering to hillsides and ridgelines with slopes greater than 30%, as well as canyon floors and the flat floodplains adjacent to the Salinas River.

#### **Cities**

None.

#### **Community Areas**

None.

#### **Rural Centers**

River Road-Las Palmas.

#### **Special Treatment Area**

##### **Greco**

Use of the property for the removal of sand and gravel ceased in the year 2000, use of the property for a contractor's yard, shop, and residence may continue pursuant to County permit, as approved August 29, 2001, or as that permit may be amended or extended.

## Land Use

The 2007 General Plan provides that development on properties with residential land use designations located within the Toro Area Plan along the Highway 68 corridor will be limited to the first single family home on a legal lot of record. The County will conduct a comprehensive review of infrastructure constraints regarding circulation, wastewater, and water supply. This restriction does not apply to development within the adopted Rural Center.

### 3.4.5.8 Cachagua Area Plan

#### Description

The Cachagua Area Plan comprises approximately 212 square miles and is located in the center of Monterey County (Exhibit 3.11). This area plan includes the communities of Prince's Camp, Jensen's Camp, Jamesburg, and Tassajara. Tassajara consists primarily of the historically designated Zen Center. The Big Sur Coast Land Use Plan and Greater Monterey Peninsula planning areas border the site to the west. The northern boundary of the Cachagua Area Plan is adjacent to the Carmel Valley Master Plan and the Toro Area Plan. The southern boundary is the Arroyo Seco River and adjacent to the Coastal/Non-Coastal Zone area. To the east is the Central Salinas Valley Area Plan. The eastern boundary is essentially parallel to the community of Chualar, south to the City of Greenfield. Public land ownership comprises almost half of the land in Cachagua, which primarily consists of the Los Padres National Forest. Chews Ridge is the highest point in this Area Plan with an elevation of 5,045 feet. The San Clemente and Los Padres Reservoirs are also located in this Area Plan.

Prominent geographic features in Cachagua include the Carmel River, which runs year-round, and the Arroyo Seco River. A significant amount of this Area Plan comprises very steep slopes, which limit the type of land use and development in this area. Numerous canyons, valleys, and streams are scattered throughout Cachagua.

#### Cities

None.

#### Community Areas

None.

## **Rural Centers**

None.

## **Special Treatment Area**

### **Syndicate Camp**

The existing recreational facilities consist of 24 cabin sites. Of the 24 sites, 13 were vacant as of June 1, 1994. No additional cabin sites will be allowed. The construction, remodeling or rebuilding of approved cabins or development of cabins on approved cabin sites will be allowed. Permanent residency is allowed.

## **3.4.5.9 South County Area Plan**

### **Description**

The South County Area Plan comprises approximately 1,281 square miles. This Area Plan includes the communities of Bradley, Jolon, Lockwood, Parkfield, and San Ardo (Exhibit 3.12). The northern boundary of the South County Area Plan is adjacent to the Central Salinas Area Plan and generally follows Highway 198, San Lucas and Jolon Roads, as well as the boundaries of the Hunter Liggett Military Reservation and Los Padres National Forest. The eastern boundary follows the San Benito, Fresno, and Kings County lines. To the west is the Big Sur Coast Land Use Plan defined by Fort Hunter Liggett and Los Padres National Forest. The ridgeline of the Santa Lucia Mountain Range also defines the western limit of the South Coast area. The San Luis Obispo County line borders this area to the south.

Prominent geographic features in this area include portions of the Diablo and Santa Lucia Mountain Ranges and the benchlands of the upper Salinas Valley. Rivers in South County are the Salinas, San Antonio, and the Nacimiento. The San Antonio Reservoir is also located in this Area Plan. Numerous canyons, valleys, and creeks are scattered throughout South County.

### **Cities**

None.

### **Community Areas**

None.

## **Rural Centers**

Bradley, Lockwood, Pleyto, and San Ardo.

### **3.4.5.10 Coastal/Non-Coastal Zone Areas**

#### **Description**

“Coastal/Non-Coastal Zone” is the term used to identify two portions of the rugged Los Padres National Forest totaling 170 square miles. These lands are not subject to any of the County Coastal Land Use Plans and are under federal jurisdiction. The area includes the Ventana and Silver Creek Wilderness areas. The Coastal/Non-Coastal areas are bounded by the Big Sur Coast Land Use Plan (west); the Cachagua Area Plan (north); the South County Area Plan (east and south); and the San Luis Obispo County line (south). These areas are not within any designated planning area boundaries of the 2007 General Plan. Because Federal authority supersedes State or local authority, land use activities within the Los Padres National Forest are not required to follow local policy or regulation.

This area is characterized as rugged forested terrain. No communities exist in the Coastal/Non-Coastal areas. Major geographical features include the Santa Lucia Mountains and the Los Padres National Forest (including the Ventana Wilderness area).

#### **Cities**

None.

#### **Community Areas**

None.

#### **Rural Centers**

None.

#### **Land Use**

In addition to cattle grazing, various commercial recreational uses currently exist within the National Forest under permit from the U.S. Forest Service. Future development and expansion of existing uses will be regulated by the Forest

Service under the adopted Los Padres Forest Management Plan. Because much of this land is remote, rugged, and ecologically sensitive, the Forest Service limits substantial new development (U.S. Department of Agriculture 2005).

### 3.4.6 Agricultural Winery Corridor Plan

The AWCP is intended to facilitate the development of wineries along a corridor in the central and southern Salinas Valley. The corridor consists of three road segments (Central/Arroyo Seco/River Road, Metz Road, and Jolon Road) that overlap with portions of the Central Salinas Valley, Toro, and South County Area Plans (depicted on Exhibit 3.13). The AWCP is a component of the 2007 General Plan.

The objectives of the AWCP are as follows:

- Achieve a balance between the wine grape production and wine processing capacity within Monterey County;
- Enhance the wine industry’s marketing of Monterey County appellation that includes connection between Monterey County’s agricultural and tourism industries; and
- Encourage planned growth of the wine industry in Monterey County.

To accomplish these objectives, the AWCP would establish a permit process for development of as many as 50 wineries and 10 off-site tasting rooms along the corridor. Of these 50 wineries, as many as 40 would be “artisan” wineries (i.e., 58,000 square feet of surface area with 35,000 square feet of building coverage) and as many as 10 would be full-scale wineries (i.e., 2 million cases annually; 410,000 square feet of surface area; 300,000 square feet of building coverage). Wineries may include on-site tasting rooms. In addition, the AWCP allows development of an additional 10 offsite tasting rooms that would be associated either with wineries within the corridor or other wineries not located within the corridor. Each winery would be allowed a single-family residence, a guesthouse, and as many as three employee housing units.

A total of three new restaurants would be allowed, with no more than one per road segment. As many as five new delicatessens would be allowed on the same site as a winery, with no more than three delicatessens along the River Road segment and no more than one on each of the other segments. As many as eight new inns would be permitted, with five on the River Road segment, one on the Metz Road segment, and two on the Jolon Road segment. A “business cluster” providing a location for wine-industry-related businesses would be allowed near an urban area. Visitor centers providing information about the Corridor would be allowed within the vicinity of Highway 101/Arroyo Seco and near Highway 68.

Table 3-15 summarizes the winery development potential for the AWCP by segment:

**Table 3-15.** Agricultural Winery Corridor Development Potential

Development Type	River Road Segment	Metz Road Segment	Jolon Road Segment	Total
Artisan Winery	24	4	12	<b>40</b>
Full-Scale Winery	5	2	3	<b>10</b>
Winery Tasting Rooms	5	2	3	<b>10</b>
Restaurant	1	1	1	<b>3</b>
Delicatessen (at winery)	3	1	1	<b>5</b>
Inns	5	1	2	<b>8</b>

Source: Monterey County Planning and Building Inspection Department, Agricultural Winery Corridor Plan, March 6, 2007.

In conjunction with adoption of the AWCP, the County will amend the zoning map to include a Zoning District Overlay designation for properties located within the AWCP boundaries. Once rezoned, projects deemed consistent within the criteria and conditions of the AWCP and Zoning District Overlay would require no additional zoning review. Permits would be required prior to development as illustrated in Table 3-16. Activities allowed by right or subject to a ministerial permit would be exempt from environmental review under the California Environmental Quality Act (CEQA). However, zoning regulations, as well as County and Uniform Building Code requirements would apply. More intensive uses or uses not otherwise consistent with the AWCP provisions would require the issuance of some type of discretionary permit. Discretionary permits would be subject to later CEQA review. Where the proposals are consistent with the AWCP and zoning, the later CEQA review may be limited to site-specific issues pursuant to Public Resources Code Section 21083.3 and 14 California Code of Regulations Section 15183.

Wineries and related facilities located outside of the corridor would be subject to discretionary permits, depending upon the zoning of the specific site. Those projects would be subject to full CEQA review.

**Table 3-16.** Agricultural Winery Corridor Permitting Requirements

Activity	Allowable by Right	Ministerial Permit	Administrative Permit
Artisan winery		X	
Full-Scale winery (including tasting facility and catering kitchen)			X
Tasting room (including catering kitchen)		X	
Winery-related food service facility		X	
Winery event (as many as 150 attendees)	X		
Private winery event	X		
Winery event (151 to 500 attendees)		X	
Restaurant			X
Delicatessen (at winery)			X
Inn			X
Ag- or winery-related visitor serving use		X	
Business Cluster			X
Winery residence, guest house, or employee residences		X	

### 3.4.7 Local Coastal Planning

The California Coastal Act was approved by the voters in 1972 to preserve public access to California’s coastline. Based on the parameters of this Act, the State legislature established regulations and a Coastal Commission to implement these regulations. The Coastal Act gave the Coastal Commission land use authority until a local jurisdiction prepares a LCP to govern land use along the coast. A LCP consists of a Land Use Plan which provides coastal development policy and a Coastal Implementation Plan which provides coastal regulation and zoning.

Development within the coastal zone is subject to a coastal development permit issued by a local government pursuant to a certified LCP. Coastal zone boundaries are determined by geographic, hydrographic, and biological features that influence California’s coastline. Any change to the LCP requires certification by the Coastal Commission. Although certification of the LCP by the Coastal Commission transfers land use control to the local authority, the Coastal Commission retains appeal authority for many types of projects. In addition, the Coastal Commission may retain certain areas of original jurisdiction where they serve to review all land use issues.

Monterey County’s LCP was completed in 1987. It consists of four plans for the County’s designated coastal areas: the North County Land Use Plan, the Del Monte Forest Land Use Plan, the Carmel Land Use Plan, and the Big Sur Coast



Land Use Plan. The Community Plan for Moss Landing within the North County Coastal Land Use Plan is not the same as the Community Plans described in the 2007 General Plan, but is instead a component of the Coastal Land Use Plan.

The 2007 General Plan does not propose any changes to the LCP. Accordingly, these plans and land use patterns will not be analyzed in this EIR, except where impacts from 2007 General Plan buildout would affect these areas (e.g., cumulative air quality emissions). Any changes or updates made to these plans once the 2007 General Plan is adopted would require environmental review independent of this EIR.

### 3.4.8 Community Areas

As part of the 2007 General Plan process, areas have been identified within the unincorporated County that can accommodate future growth. These five areas, designated as Community Areas, are listed below. Aerial views and the boundary of each Community Area are shown on Exhibit 3.14 through Exhibit 3.18.

- Boronda,
- Castroville,
- Chualar,
- Ford Ord, and
- Pajaro.

Each Community Area (except Chualar) will have a specific boundary that can only be changed by a General Plan amendment. The precise boundary of the Chualar Community Area has yet to be formally established; however, it may not exceed 350 acres over the life of this plan. This EIR evaluates potential buildout impacts based on the size restriction and limitations of surrounding lands under Williamson Act contracts. Establishing a formal boundary and/or Community Plan will require a subsequent planning and environmental review process.

The 2007 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. Community Plans have been completed or are underway for some areas:

- East Garrison portion of the Fort Ord Community Area—Specific Plan adopted and EIR certified.
- Castroville Community Area—Community Plan approved on April 10, 2007 and EIR certified. Separately from the 2007 General Plan, the Castroville Community Plan adopted by the County in April 2007 is currently before the Coastal Commission for ratification and related amendment of the County’s LCP. As of July 2008, the Commission had not set a date to hear this Plan.

- Pajaro Community Area—There is an adopted Redevelopment Plan, but development of a Community Plan will require future community involvement and Board Approval.
- Boronda Community Area—A Draft Community Plan will require future Board action.

Community Plans will further guide growth in each Community Area in accordance with 2007 General Plan and Area Plan policies. The boundaries of the Community Areas, as well as land use designations, may change during the Community Plan process, but would be subject to future general plan amendments. As such, each Community Plan will be required to undergo its own separate environmental review.

The initial phase of Community Area growth would be concentrated in these five areas. Contemplated growth in Boronda, Castroville, Fort Ord, and Pajaro would be facilitated by redevelopment activities. Subsequent phases of development in Fort Ord are likely to occur at a later date than development of the other Community Areas. The initial phase of planning for the future Community Area of Chualar will not occur until after adoption of the 2007 General Plan.

Table 3-7 summarizes the existing land uses within each Community Area and Table 3-8 summarizes the additional development that would occur in each Community Area under the 2007 General Plan.

### 3.4.9 Rural Centers

Rural Centers are existing rural and semi-rural communities where planning for future growth would occur. The 2007 General Plan states that development of Rural Centers is a secondary planning priority after the development of the Community Plans for the Community Areas.

The seven Rural Centers are listed below. An aerial view and the boundary of each Rural Center are shown on Exhibit 3.19 through Exhibit 3.25.

- Bradley,
- River Road,
- Lockwood,
- San Ardo,
- Pine Canyon (King City),
- Pleyto, and
- San Lucas

Rural Centers are intended to support low- to medium-density residential uses with a mix of small-scale retail and commercial service uses primarily serving

local residents. The 2007 General Plan allows for Rural Center growth at a density of 1 to 6 units per acre, so long as adequate potable water and wastewater facilities are provided concurrently with development. Densities from 10–15 units per acre would be allowed if development is processed as part of an Affordable/Workforce Housing incentive program.

The 2007 General Plan stipulates that a Capital Improvement and Financing Study must be prepared prior to any new development in a Rural Center. Exceptions would be made for residential development in accordance with the Development Evaluation System (a pass-fail system of evaluating developments of five or more lots or units or development of an equivalent intensity) and small-scale, neighborhood-serving commercial uses.

Table 3-7 summarizes the existing land uses within each Rural Center and Table 3-8 summarizes the maximum development that would occur in each Rural Center under the 2007 General Plan.

### **3.4.10 Special Treatment Areas**

The 2007 General Plan establishes STAs at designated locations in the County to promote specific types of development that are compatible with site constraints and surrounding land uses. The 17 STAs are listed below, with the associated Area Plan in parenthesis. Twelve of the STAs were designated in the 1982 General Plan; several of these have already been developed consistent with the General Plan designation. The land use maps (listed in parenthesis and next to each STA below) identify the outlines of STAs. The STAs have been discussed under the pertinent Area Plans above.

- Highway 68/Foster Road (Greater Salinas);
- Natividad/Rogge Road (Greater Salinas);
- Butterfly Village (Greater Salinas);
- Spence/Potter/Encinal Roads (Greater Salinas/Central Salinas Valley);
- Paraiso Hot Springs (Central Salinas Valley);
- Old Mission Union School (Central Salinas Valley);
- Lohr Property (Central Salinas Valley);
- Miller's Lodge (Central Salinas Valley);
- White Rock Club (Greater Monterey Peninsula);
- San Clemente Ranch (Greater Monterey Peninsula);
- Jefferson (Greater Monterey Peninsula);
- Carmel Valley Ranch (Greater Monterey Peninsula; Carmel Valley Master Plan);

- Rancho San Carlos (Greater Monterey Peninsula, Carmel Valley Master Plan);
- Rancho Canada Village (Carmel Valley Master Plan);
- Condon/Cugach Property (Greater Monterey Peninsula; Carmel Valley Master Plan);
- Greco (Toro); and
- Syndicate Camp (Cachagua).

In addition, the 2007 General Plan would establish three Study Areas that would be analyzed to determine if they could support a STA designation. These three Study Areas are listed below with the associated Area Plan in parenthesis:

- Spence/Potter Road (Central Salinas Valley, Greater Salinas);
- Espinosa Road (Greater Salinas); and
- Gardiner/Tennis Club (Carmel Valley Master Plan).

### 3.4.11 Affordable Housing Overlays

In order to encourage the production of affordable housing, the County would designate the following three areas as AHO districts. Within an AHO district, the minimum residential density would be 6 units per acre, up to a maximum of 30 units per acre. An average density of 10 units per acre or higher would be required within each AHO. The maximum lot size for detached single-family affordable units would be 5,000 square feet. Landowners would have the option of this higher density of development, if their projects meet the affordability criteria listed below. In addition, the AHO provisions would apply to Community Areas prior to the adoption of a Community Plan and Rural Centers prior to the adoption of an Infrastructure and Financing Study.

- Mid-Carmel Valley (Exhibit 3.26). Approximately 13 acres located east and west of existing mid-valley development, excluding portions of properties located within the floodplain.
- Highway 68/Monterey Peninsula Airport (Exhibit 3.26). Approximately 85 acres located east of Highway 68, excluding areas with native Monterey pine forest.
- Reservation Road/Highway 68 (Exhibit 3.26). A 31-acre parcel located on the south side of Reservation Road shall be developed with a mix of neighborhood commercial uses and residential units that serve a range of income levels.

An AHO has a number of qualifying criteria that would have to be met by the developer in order to build at AHO densities.

- Development within an AHO would be approved on a project-by-project basis and achieve the following levels of affordability (plus or minus 1%):

10% very low income; 15% low income; 15% moderate income; 20% Workforce I; and 40% Workforce II.

- Individual projects may increase the percentage of Very Low, Low and Moderate income categories by reducing the percentage of Workforce I or Workforce II income levels. Up to 25% of the Work Force II housing may be market-rate if necessary to achieve the higher levels of affordability of the development or to accommodate at least 15% farmworker housing. This exception shall be based on one or more of the following criteria: the specific project characteristics and location relative to housing needs in the local area; and special economic factors, such as land cost or infrastructure upgrades, affecting the cost of development within the local area.
- CEQA analysis for the project does not disclose any significant unavoidable adverse impacts for which findings of overriding considerations cannot be made.
- Mixed Use development that combines residential with commercial uses would be encouraged to tie in with surrounding commercial and residential land uses. A mix of housing types shall be provided on sites in excess of 5 acres, i.e., at least two product types, such as for rent apartments, for rent townhomes, ownership townhomes, ownership single family homes. On sites of less than 5 acres, a single housing type may be allowed. The mix of housing types and designs shall be sensitive to neighboring uses.

To encourage voluntary participation in the AHO process, the County would provide incentives for qualifying projects such as:

- Density bonuses;
- Streamlined permitting process, including assigning experienced staff to such projects, hiring outside contract planners, plan checkers and building inspectors (at the cost of the developer);
- Waiver or deferral of planning and building permit fees (but not fees for the purpose of financing infrastructure);
- Priority allocation of resource capacity such as water and sewer over other projects not yet approved;
- Development standards and grant funding assistance.

Where applicable, the County would also use redevelopment powers to assist AHO development.

### **3.4.12 Routine and Ongoing Agriculture**

In order to retain viable agricultural production in the face of increasing regulation and competition, Monterey County's 2007 General Plan proposes activities that are may be considered "routine and ongoing" (Policy AG-3.3 of the Agriculture Element). The County will, after consultation with the

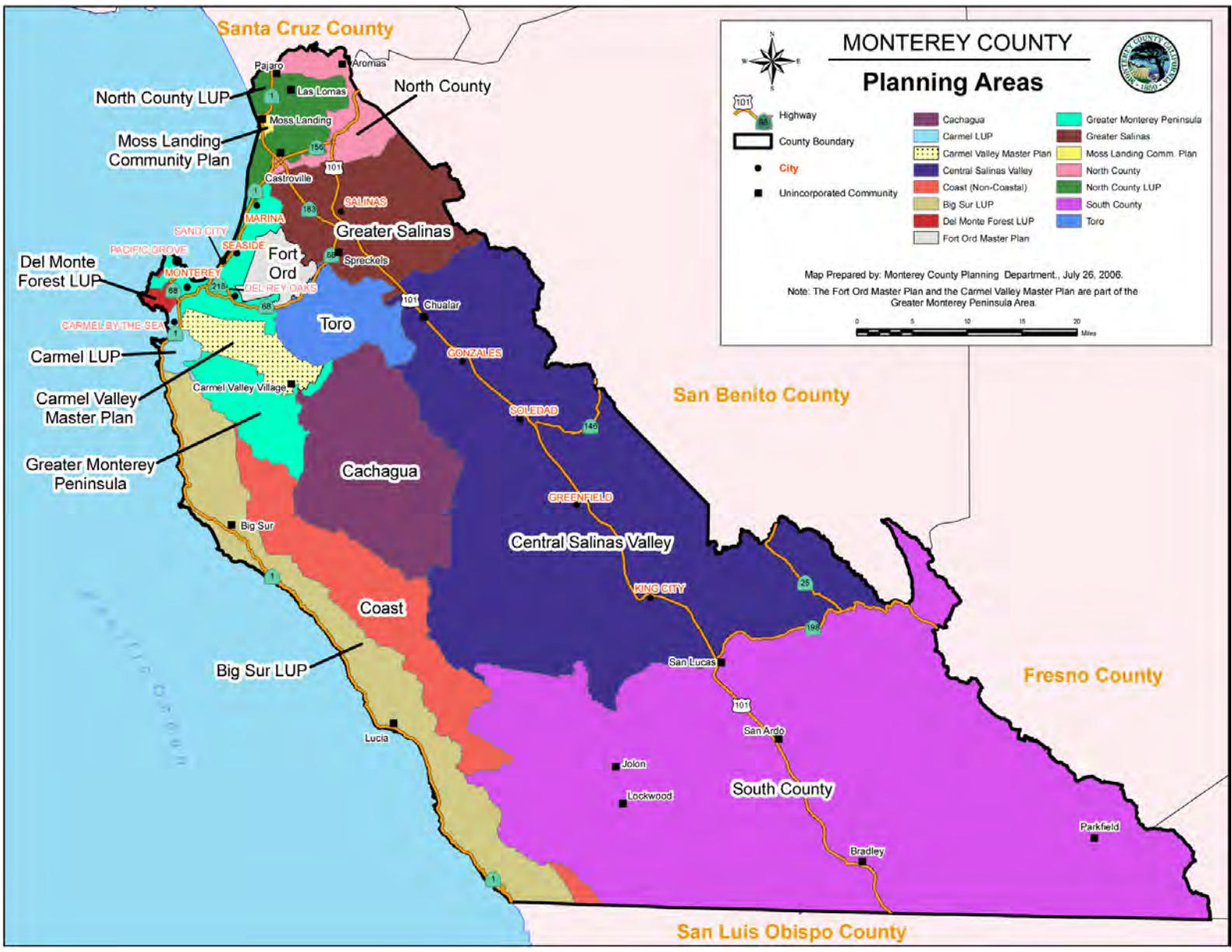
Agricultural Commissioner and with appropriate review by the Agricultural Advisory Committee, establish by ordinance a list of “Routine and Ongoing Agricultural Activities” that will be allowed without discretionary permits. These may include, but are not limited to:

- Pasture and rangeland management;
- Conversion of agricultural land to other agricultural uses;
- Preparation of product for market, and delivery of product to market;
- Planting, harvesting, cultivation, tillage, selection, rotation, irrigation, fallowing, and all soil preparation activities;
- Raising of livestock, poultry, fur-bearing animals, dairying, or fish;
- Maintenance of sediment basins, stock ponds, irrigation and tail water return systems, stream bank and grade stabilization, water retention and pumping facilities, erosion control and surface drainage activities;
- Maintenance of farm access roads, trails, and parking facilities;
- Fencing, corrals, animal handling facilities;
- Greenhouses, sheds, storage and outbuildings; and
- Emergency activities that protect the health and safety of the general public.

“Routine and Ongoing Agricultural Activities” are exempt from the following General Plan policies to the extent specified by those policies, except for activities that would create significant soil erosion impacts or violate adopted water quality standards:

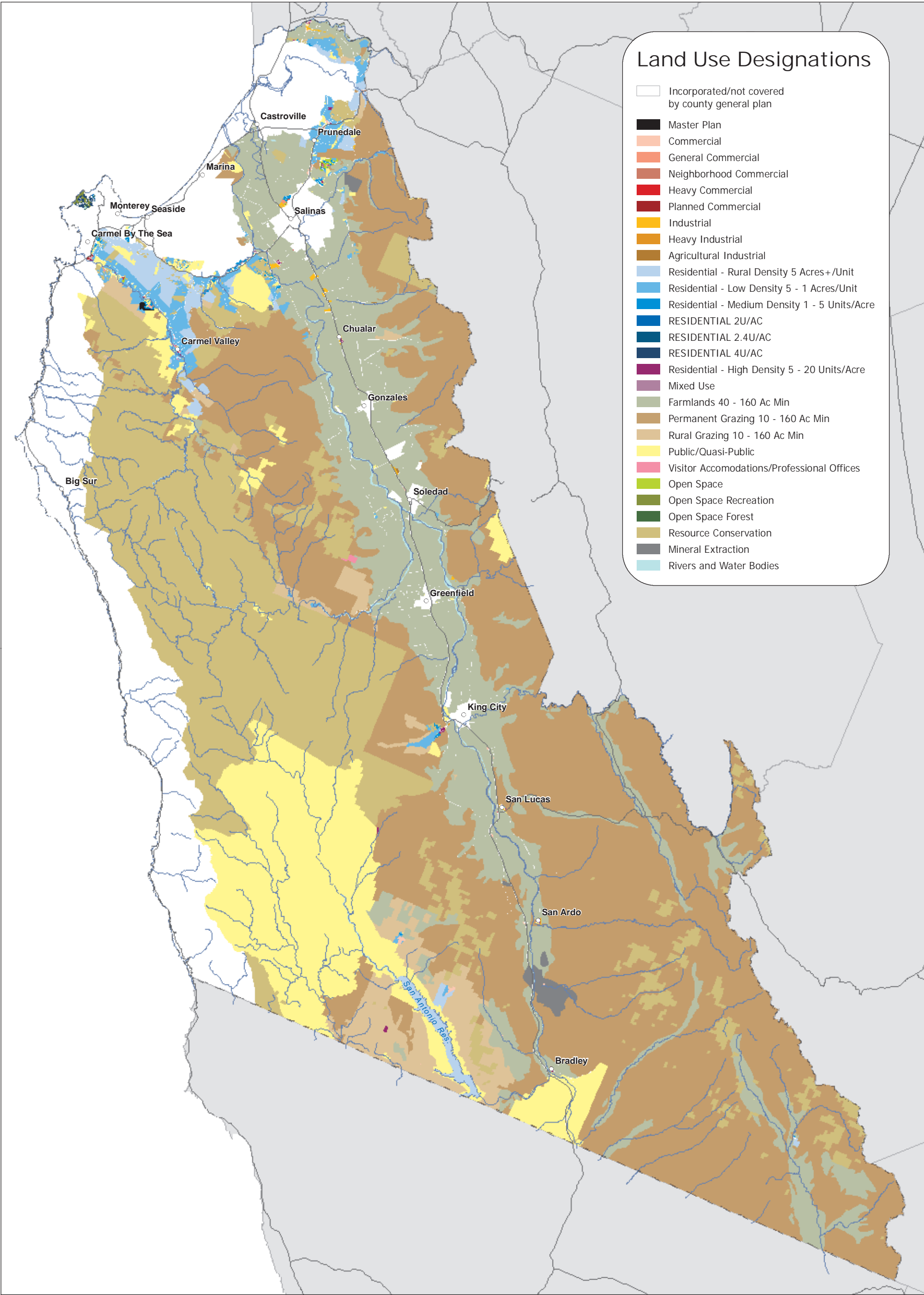
- *C-5.3*—develop guidelines to assure that development and land use in the Scenic Highway Corridors are compatible with the surrounding area.
- *C-5.4*—apply land use controls to protect the Scenic Highway Corridor and to encourage sensitive selection of sites and open space preservation within such areas.
- *OS-1.9*—encourage development that protects and enhances the County’s scenic qualities.
- *OS-1.12*—establish viewshed requirements along scenic routes. This would apply to large-scale agricultural processing facilities or facilities governed by the AWCP that would otherwise qualify as routine and ongoing.
- *OS-3.5*—regulate development on steep slopes. This would apply to routine and ongoing conversion of previously uncultivated lands.
- *OS-3.6*—develop slope density requirements and standards for clustering development.
- *OS-5.4*—avoid impacts to State and federally listed plant and animal species and designated critical habitat for federally listed species.

- *OS-6.3*—require new development proposed within moderate or high sensitivity zones, or within 150 feet of a known recorded archaeological and/or cultural site to complete a Phase I survey.
- *OS-7.3*—require a paleontological field inspection prior to approval of development proposed within high and moderate sensitivity zones and known fossil-bearing formations.
- *OS-8.3*—impose requirements for the protection of burial sites. Routine and ongoing activities would be subject to these requirements only to the extent that State law requires.
- *OS-10.8*—protect the public from naturally occurring asbestos by requiring mitigation measures to control dust and emissions during construction, grading, quarrying, or surface mining operations. This policy would apply to routine and ongoing agricultural activities only to the extent required by State and federal law.
- *S-2.3*—require all new development, including filling, grading, and construction, within designated 100-year floodplain areas to conform to the guidelines of FEMA and the National Flood Insurance Program and ordinances established by the County Board of Supervisors. With the exception of the construction of structures, routine and ongoing agricultural activities would be exempt from this policy.



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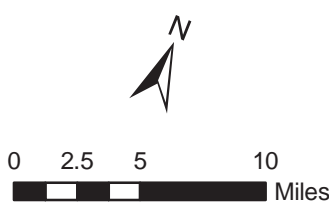




### Land Use Designations

- Incorporated/not covered by county general plan
- Master Plan
- Commercial
- General Commercial
- Neighborhood Commercial
- Heavy Commercial
- Planned Commercial
- Industrial
- Heavy Industrial
- Agricultural Industrial
- Residential - Rural Density 5 Acres+/Unit
- Residential - Low Density 5 - 1 Acres/Unit
- Residential - Medium Density 1 - 5 Units/Acre
- RESIDENTIAL 2U/AC
- RESIDENTIAL 2.4U/AC
- RESIDENTIAL 4U/AC
- Residential - High Density 5 - 20 Units/Acre
- Mixed Use
- Farmlands 40 - 160 Ac Min
- Permanent Grazing 10 - 160 Ac Min
- Rural Grazing 10 - 160 Ac Min
- Public/Quasi-Public
- Visitor Accomodations/Professional Offices
- Open Space
- Open Space Recreation
- Open Space Forest
- Resource Conservation
- Mineral Extraction
- Rivers and Water Bodies

**Exhibit 3.2**  
**General Plan Land Use**  
**Monterey County**



Highways      Streams

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Sources: California Department of Conservation, Farmland Mapping and Monitoring Program, 1984, 1996, and 2006. County of Monterey, 1982 vegetation mapping. California Spatial Information Library.

# Land Use Designations

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- Commercial
- General Commercial
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- Heavy Commercial
- Planned Commercial
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- RESIDENTIAL 2.4U/AC
- RESIDENTIAL 4U/AC
- Residential - High Density 5 - 20 Units/Acre
- Mixed Use
- Farmlands 40 - 160 Ac Min
- Permanent Grazing 10 - 160 Ac Min
- Rural Grazing 10 - 160 Ac Min
- Public/Quasi-Public
- Visitor Accomodations/Professional Offices
- Open Space
- Open Space Recreation
- Open Space Forest
- Resource Conservation
- Mineral Extraction
- Rivers and Water Bodies

Comm Area: Pajaro

Comm Area: Castroville

Comm Area: Boronda

Comm Area: Fort Ord/East Garrison

AHO: Monterey Airport and Highway 68

AHO: Hwy. 68 and Reservation Road

Rural Center: River Road

Wine Corridor: Central/Arroyo Seco/River Road Segment

AHO: Mid-Valley



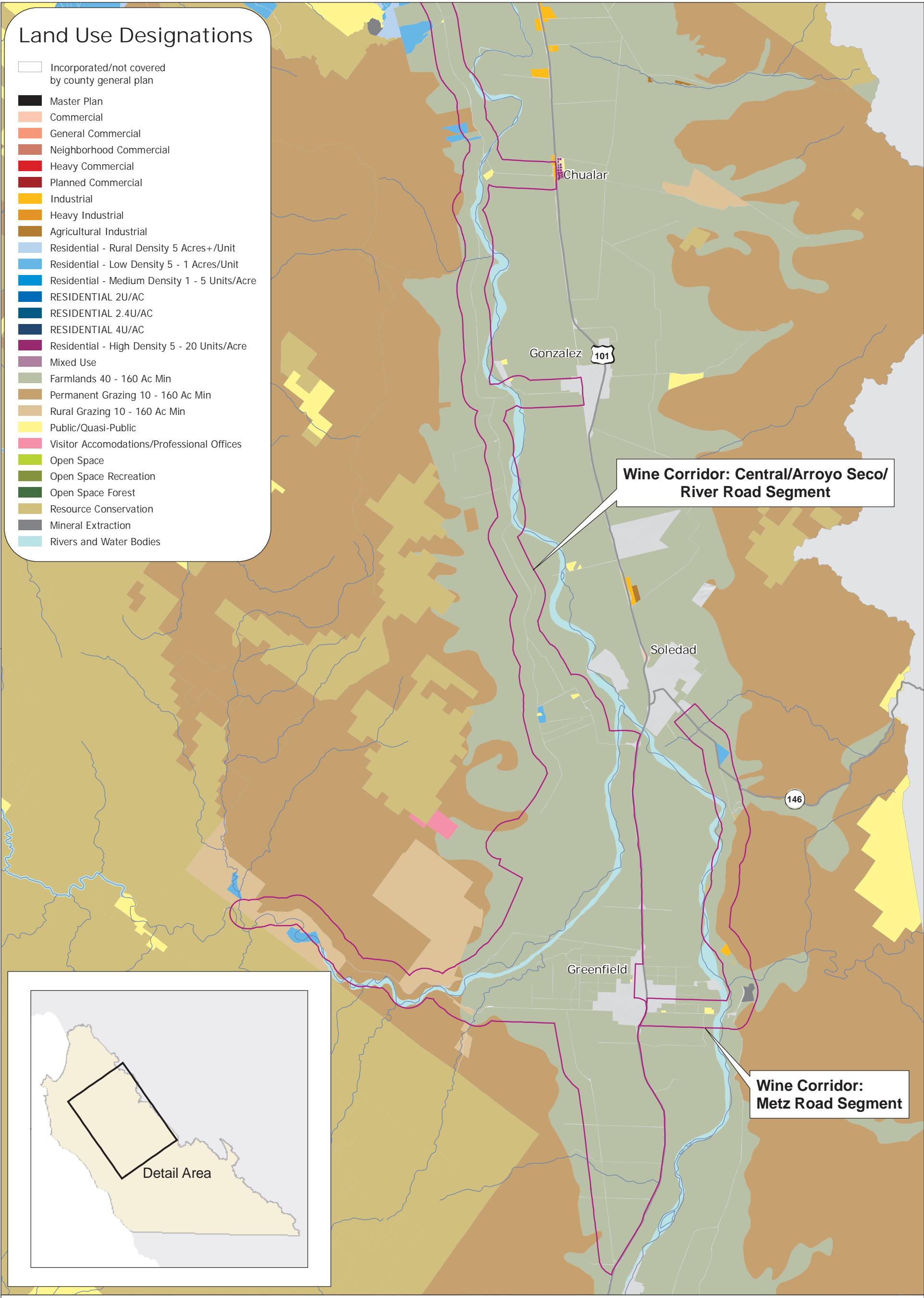
**Exhibit 3.2a**  
General Plan Land Use  
North County

Sources: County of Monterey. California Spatial Information Library.

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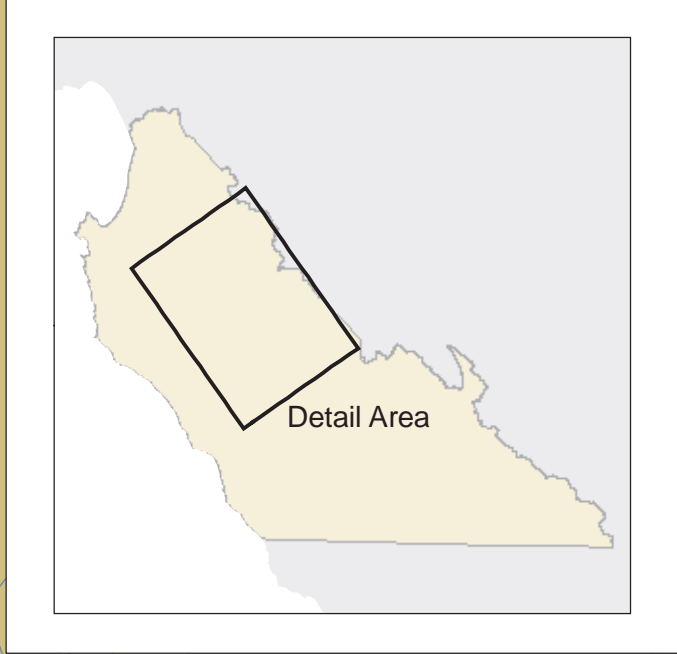
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- Residential - Low Density 5 - 1 Acres/Unit
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- RESIDENTIAL 4U/AC
- Residential - High Density 5 - 20 Units/Acre
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- Public/Quasi-Public
- Visitor Accomodations/Professional Offices
- Open Space
- Open Space Recreation
- Open Space Forest
- Resource Conservation
- Mineral Extraction
- Rivers and Water Bodies



**Wine Corridor: Central/Arroyo Seco/ River Road Segment**

**Wine Corridor: Metz Road Segment**



**Exhibit 3.2b**  
**General Plan Land Use**  
**Salinas Valley North**



Sources: County of Monterey. California Spatial Information Library.

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# Land Use Designations

- Incorporated/not covered by county general plan
- Master Plan
- Commercial
- General Commercial
- Neighborhood Commercial
- Heavy Commercial
- Planned Commercial
- Industrial
- Heavy Industrial
- Agricultural Industrial
- Residential - Rural Density 5 Acres+/Unit
- Residential - Low Density 5 - 1 Acres/Unit
- Residential - Medium Density 1 - 5 Units/Acre
- RESIDENTIAL 2U/AC
- RESIDENTIAL 2.4U/AC
- RESIDENTIAL 4U/AC
- Residential - High Density 5 - 20 Units/Acre
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- Public/Quasi-Public
- Visitor Accomodations/Professional Offices
- Open Space
- Open Space Recreation
- Open Space Forest
- Resource Conservation
- Mineral Extraction
- Rivers and Water Bodies

**Rural Center: Pine Canyon (King City)**

**Rural Center: San Lucas**

**Wine Corridor: Jolon Road Segment**

**Rural Center: Lockwood**

**Rural Center: San Ardo**

**Rural Center: Pleyto**

**Rural Center: Bradley**

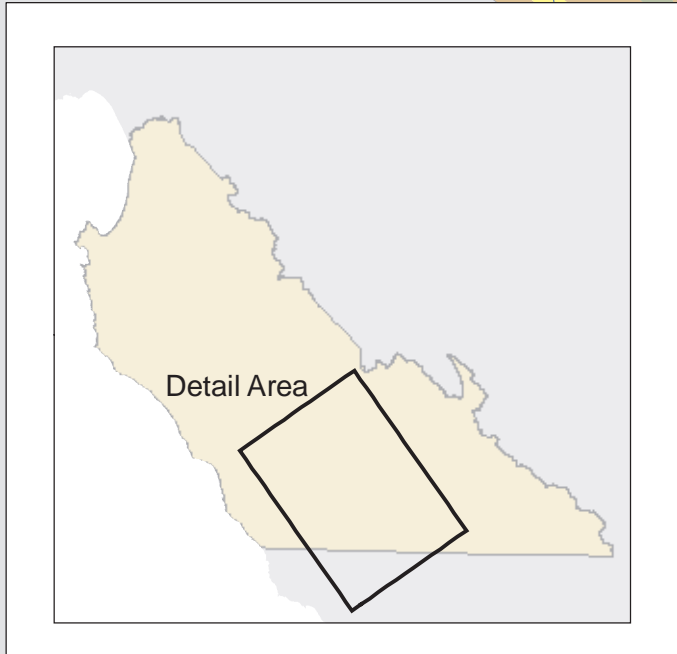
San Lucas

San Ardo

Bradley

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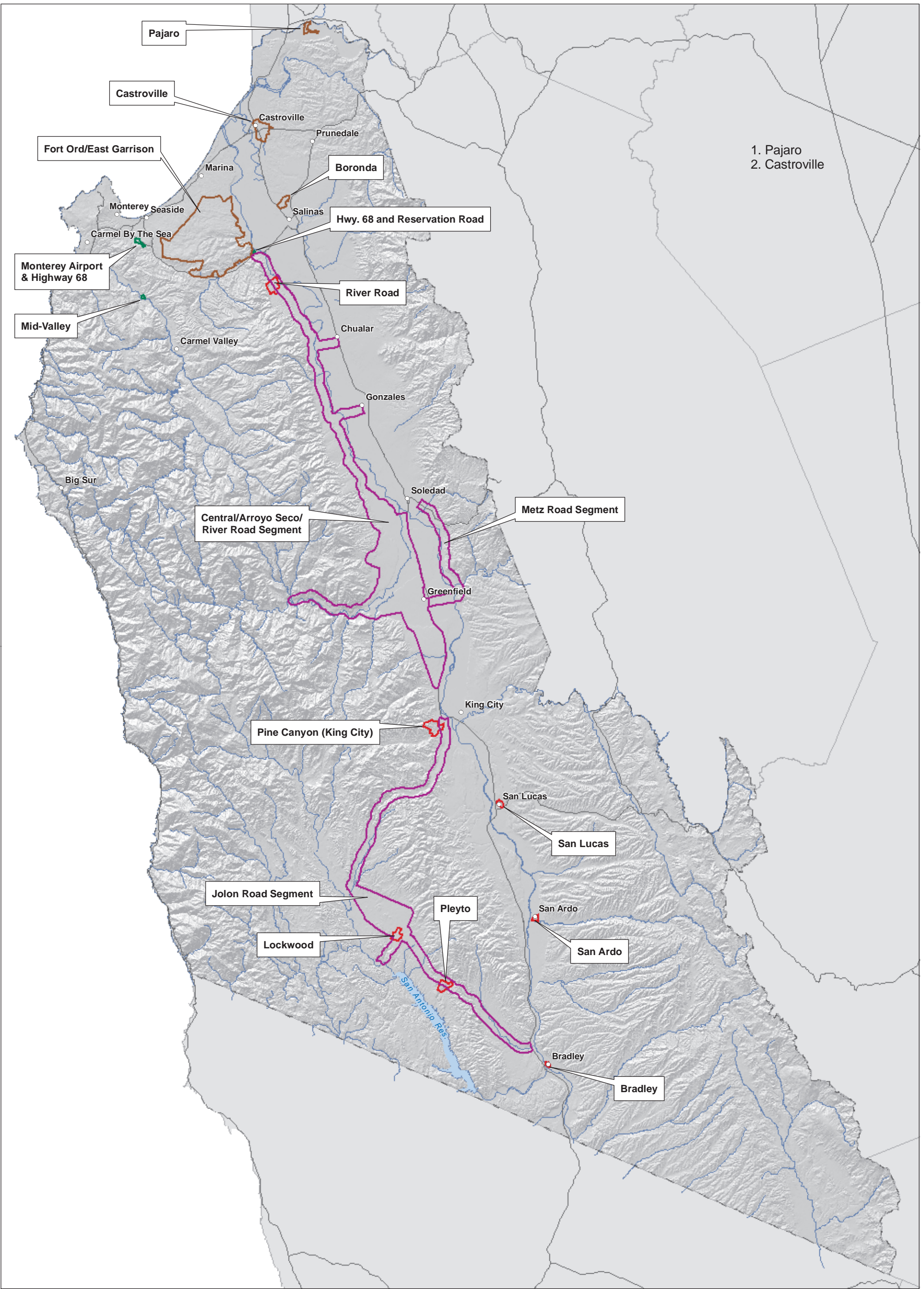
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**Exhibit 3.2c**  
General Plan Land Use  
Salinas Valley South

Sources: County of Monterey. California Spatial Information Library.

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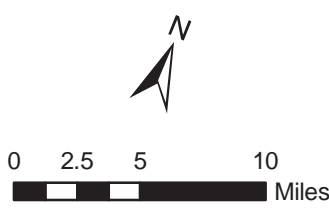
1. Pajaro  
2. Castroville

**Planning Areas**

- Community Planning Areas
- AHO Areas
- Rural Centers
- Wine Corridor

- Highways
- Streams

**Exhibit 3.3**  
**Community Areas, Rural Centers,**  
**Affordable Housing Overlay Districts**  
**and Agricultural Winery**  
**Corridor Plan Map**



Sources:  
County of Monterey, California Spatial Information Library.

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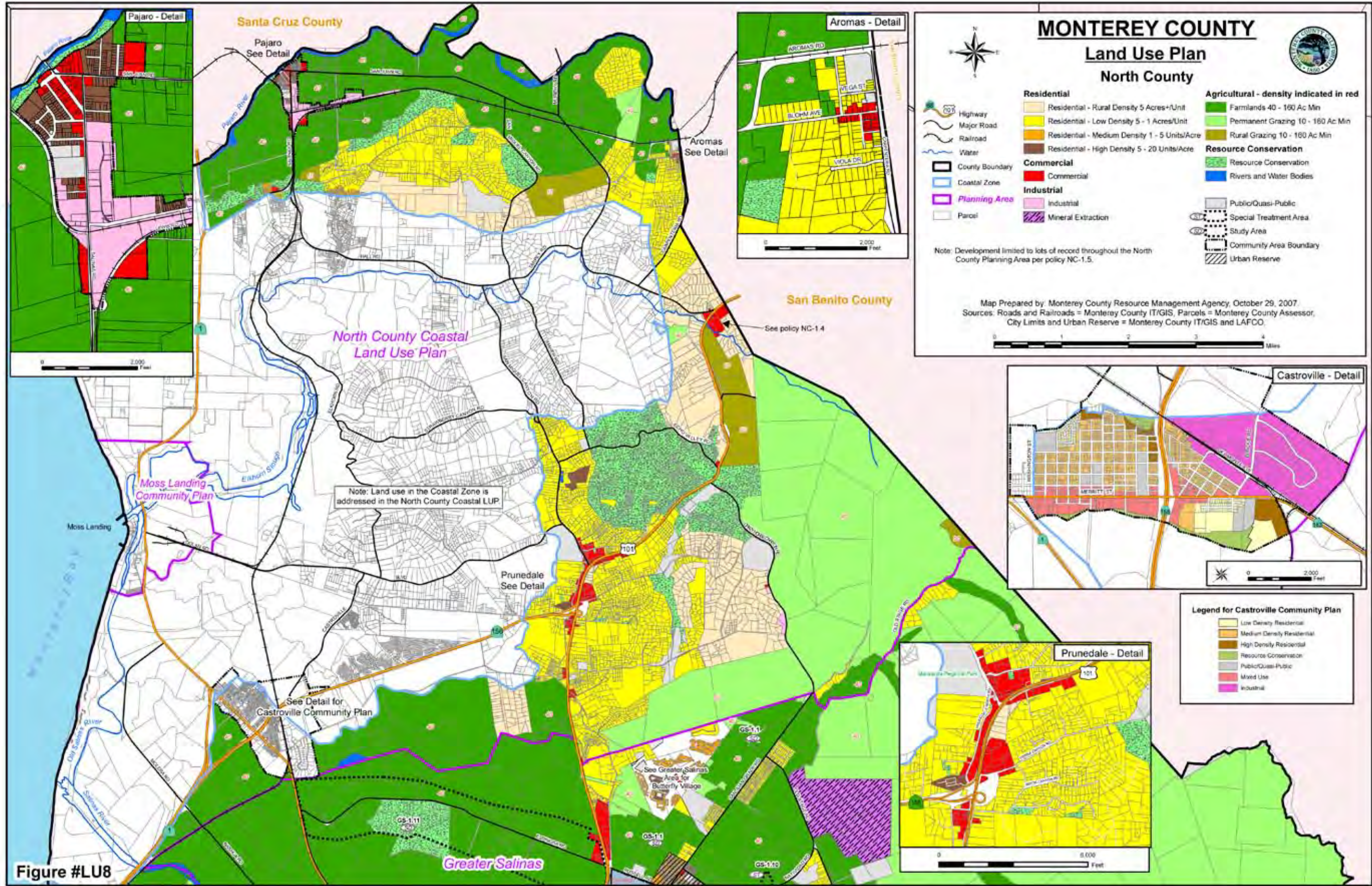
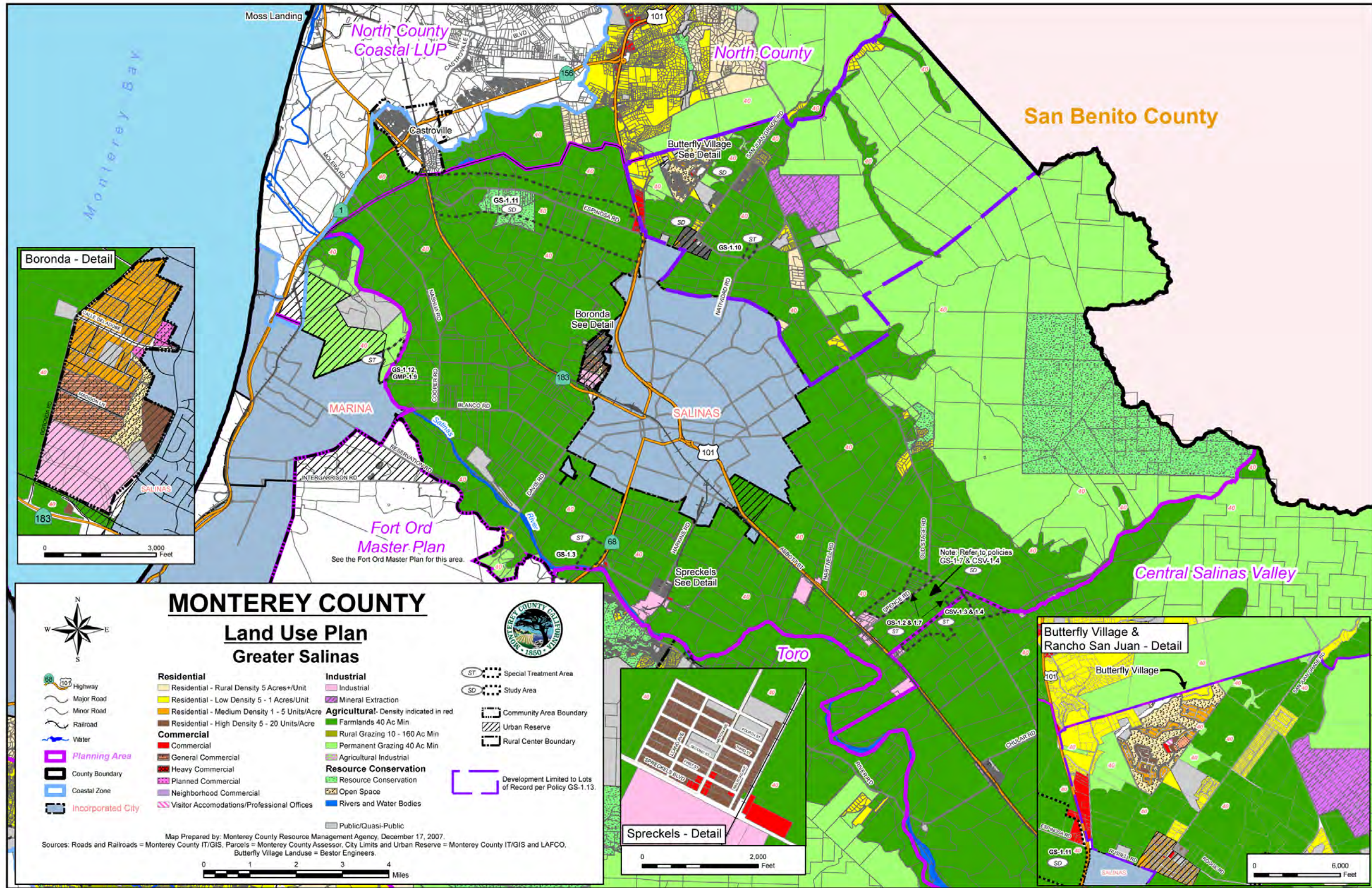


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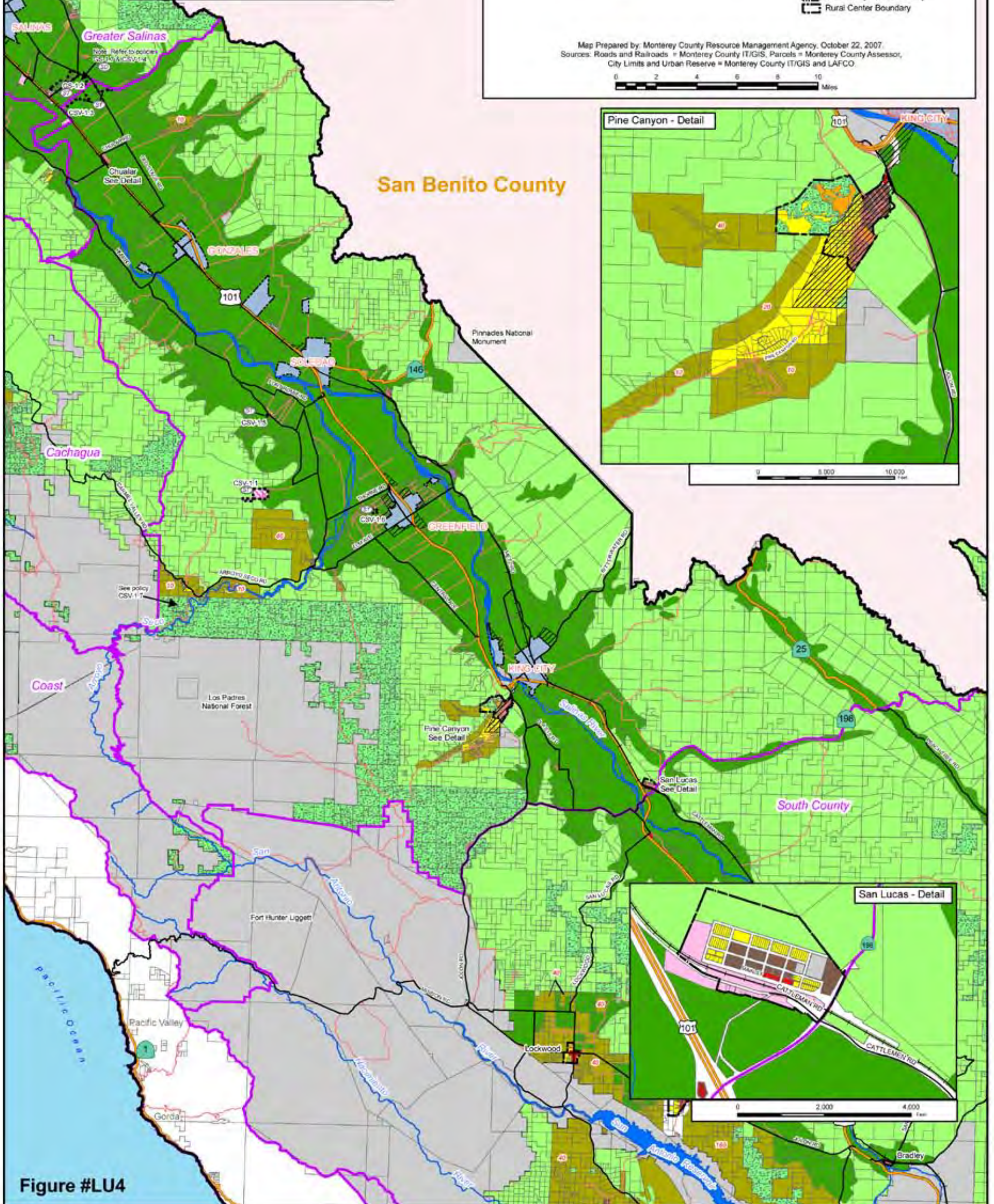
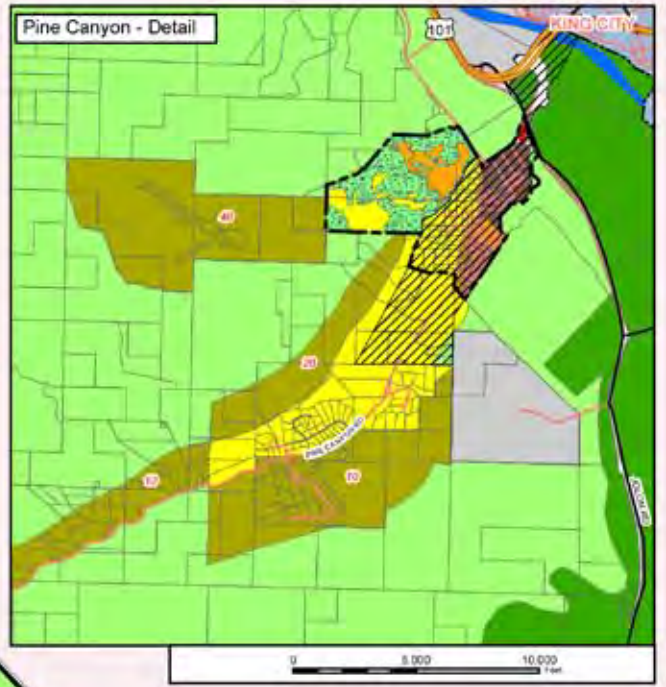


## MONTEREY COUNTY

### Land Use Plan Central Salinas Valley

<ul style="list-style-type: none"> <li> Highway</li> <li> Major Road</li> <li> Minor Road</li> <li> Railroad</li> <li> Water</li> <li> County Boundary</li> <li> Planning Area</li> <li> Coastal Zone</li> <li> Incorporated City</li> <li> Parcel</li> </ul>	<p><b>Residential</b></p> <ul style="list-style-type: none"> <li> Residential - Rural Density 5 Acres+/Unit</li> <li> Residential - Low Density 5 - 1 Acres/Unit</li> <li> Residential - Medium Density 1 - 5 Units/Acre</li> <li> Residential - High Density 5 - 20 Units/Acre</li> </ul> <p><b>Commercial</b></p> <ul style="list-style-type: none"> <li> Commercial</li> <li> Heavy Commercial</li> </ul> <p><b>Industrial</b></p> <ul style="list-style-type: none"> <li> Visitor Accommodations/Professional Offices</li> <li> Industrial</li> <li> Mineral Extraction</li> </ul>	<p><b>Agricultural - density indicated in red</b></p> <ul style="list-style-type: none"> <li> Farmlands 40 Ac Min</li> <li> Rural Grazing 10 - 160 Ac Min</li> <li> Permanent Grazing 40 Ac Min</li> <li> Agricultural Industrial</li> </ul> <p><b>Resource Conservation</b></p> <ul style="list-style-type: none"> <li> Rivers and Water Bodies</li> <li> Resource Conservation</li> </ul> <p><b>Public/Quasi-Public</b></p> <ul style="list-style-type: none"> <li> Special Treatment Area</li> <li> Study Area</li> <li> Urban Reserve</li> <li> Community Area Boundary</li> <li> Rural Center Boundary</li> </ul>
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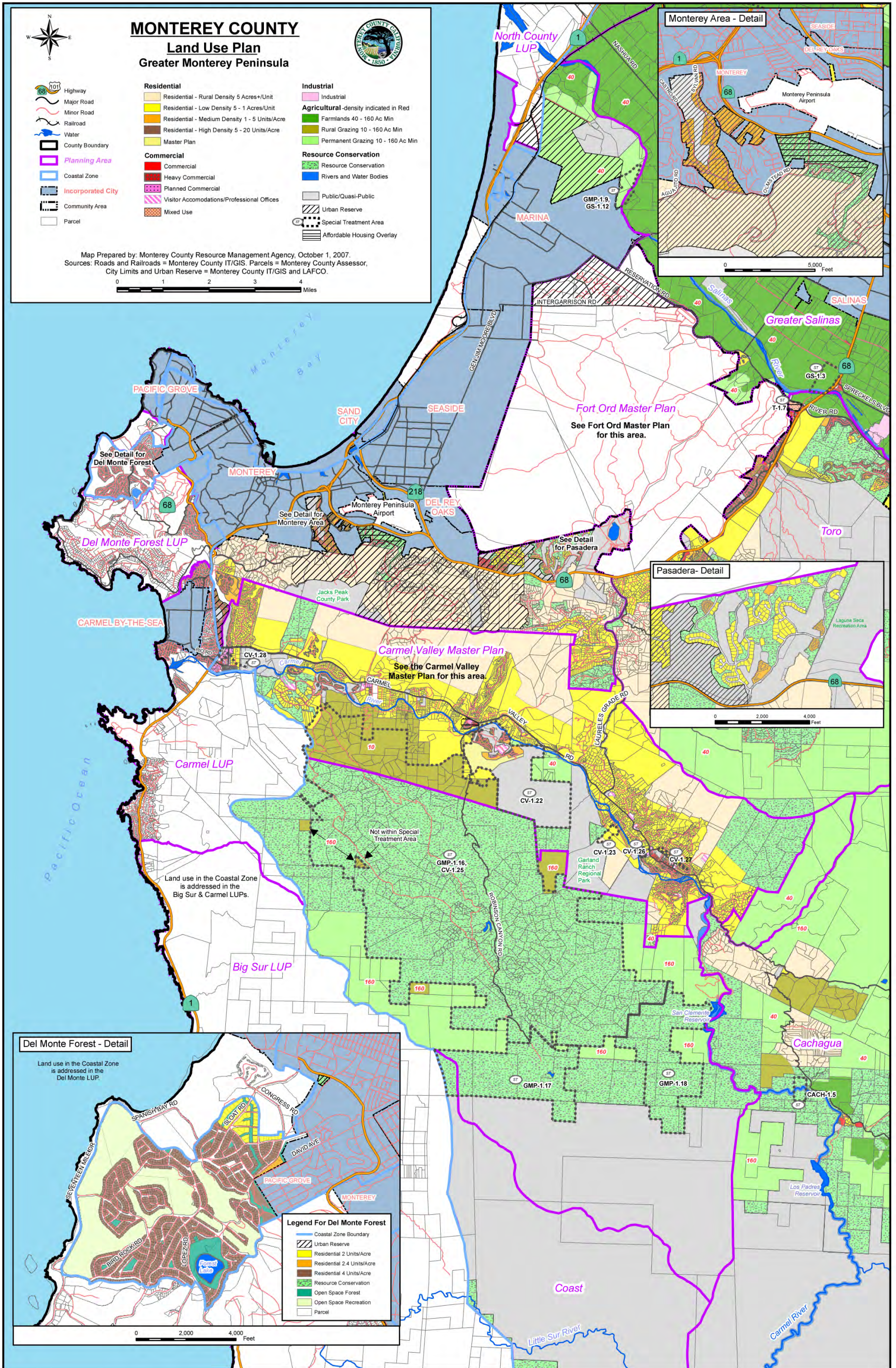
Map Prepared by: Monterey County Resource Management Agency, October 22, 2007.  
Sources: Roads and Railroads = Monterey County IT/GIS, Parcels = Monterey County Assessor, City Limits and Urban Reserve = Monterey County IT/GIS and LAFCO.



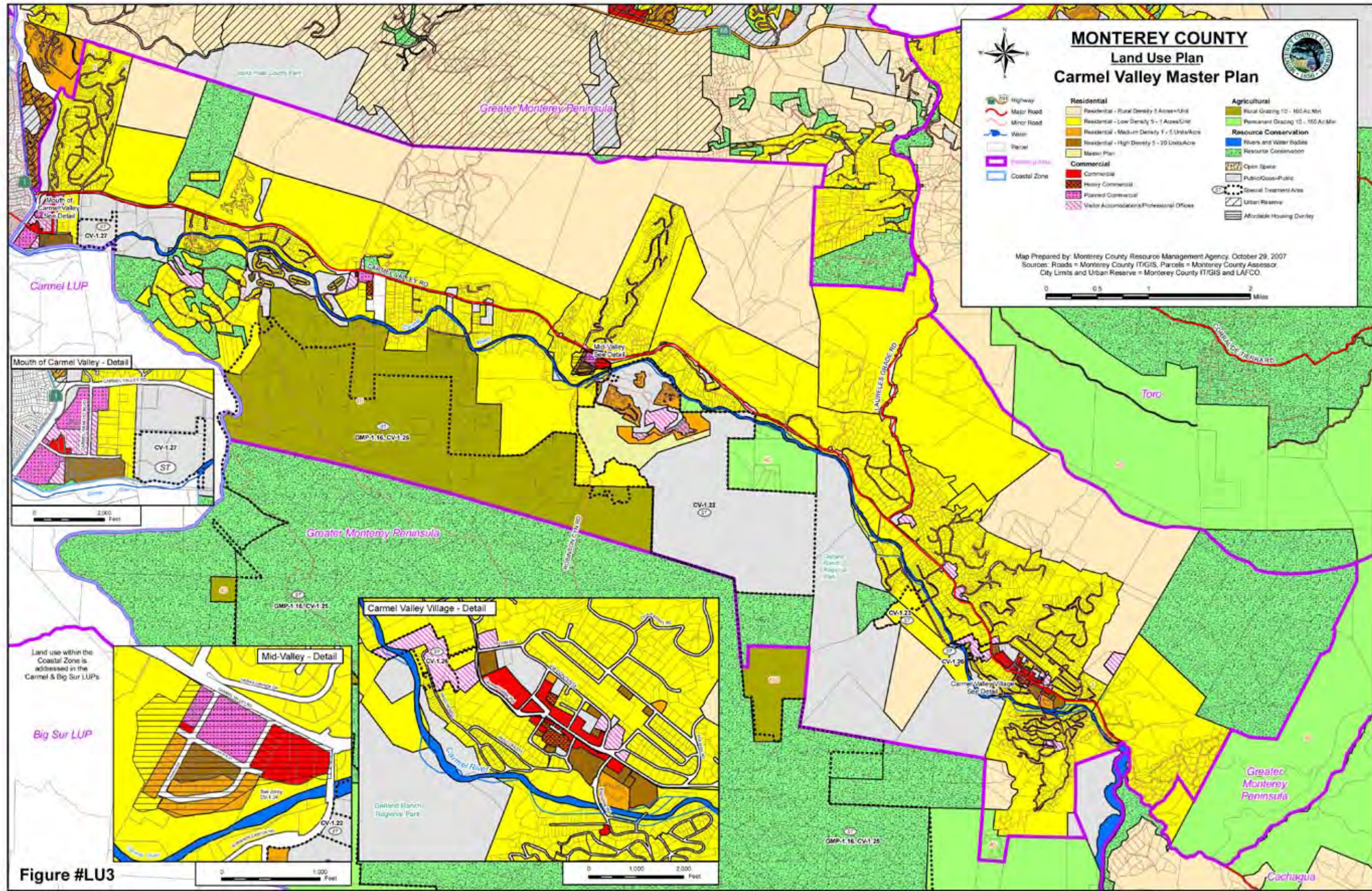
**Figure #LU4**

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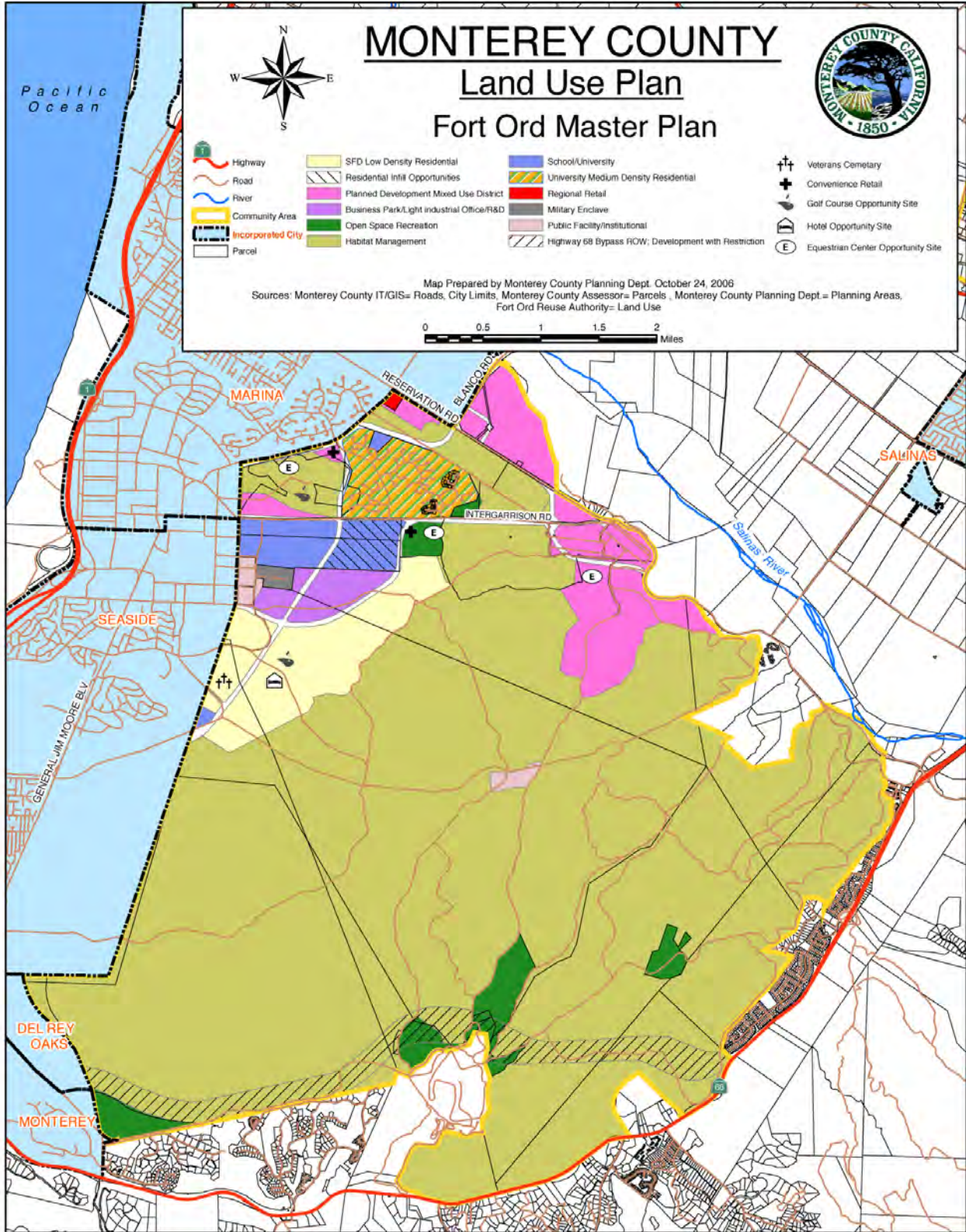




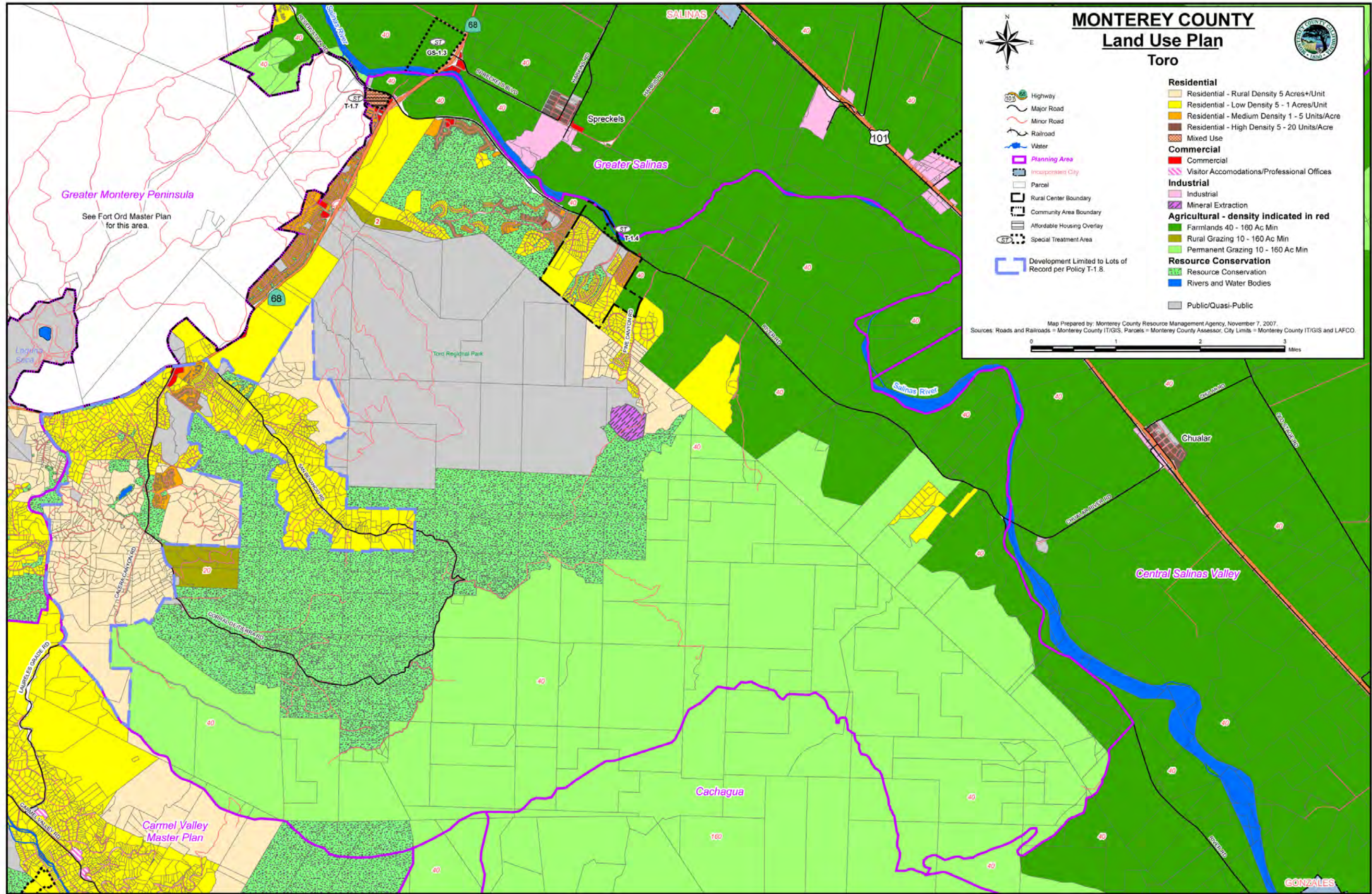
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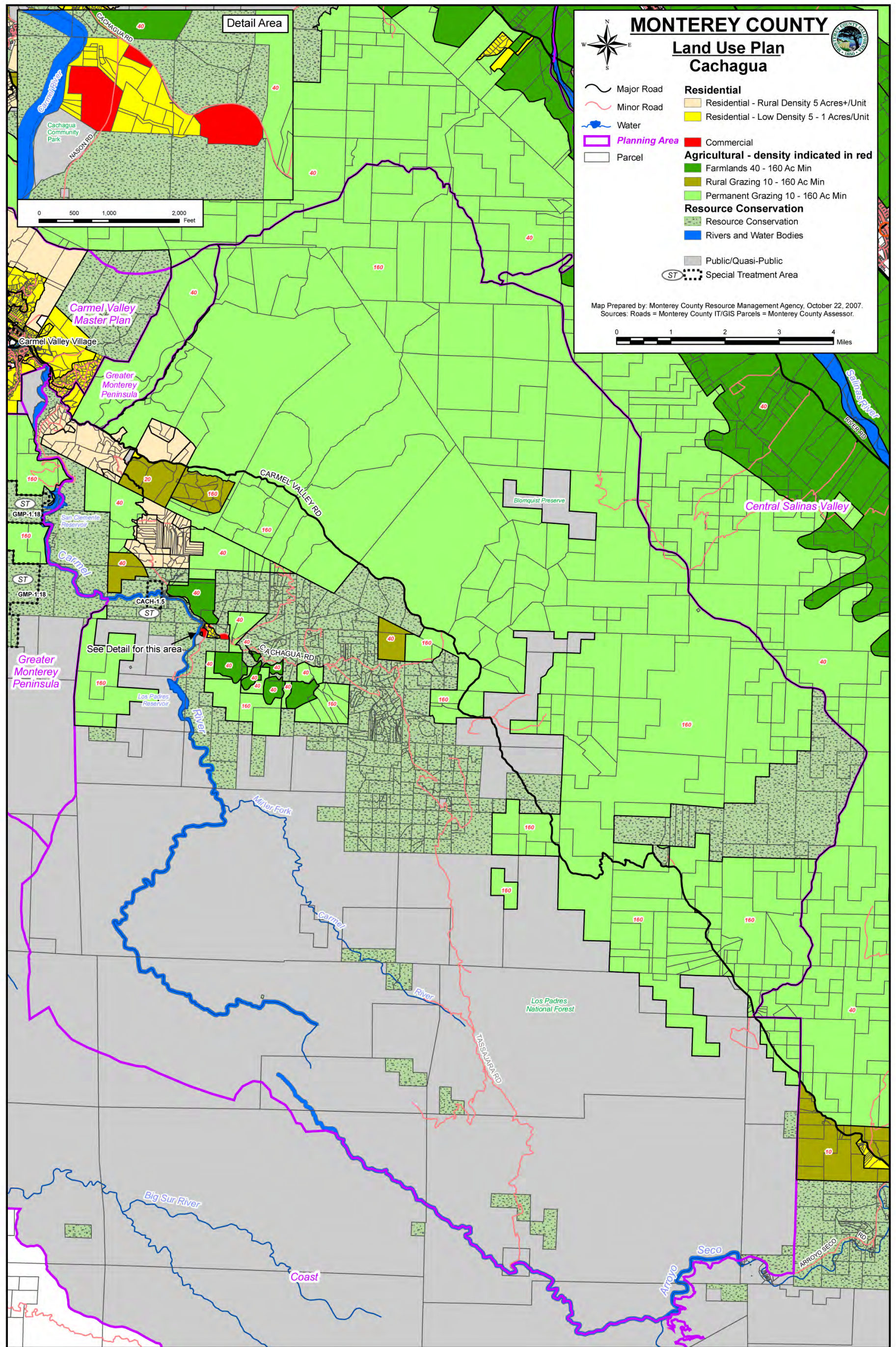
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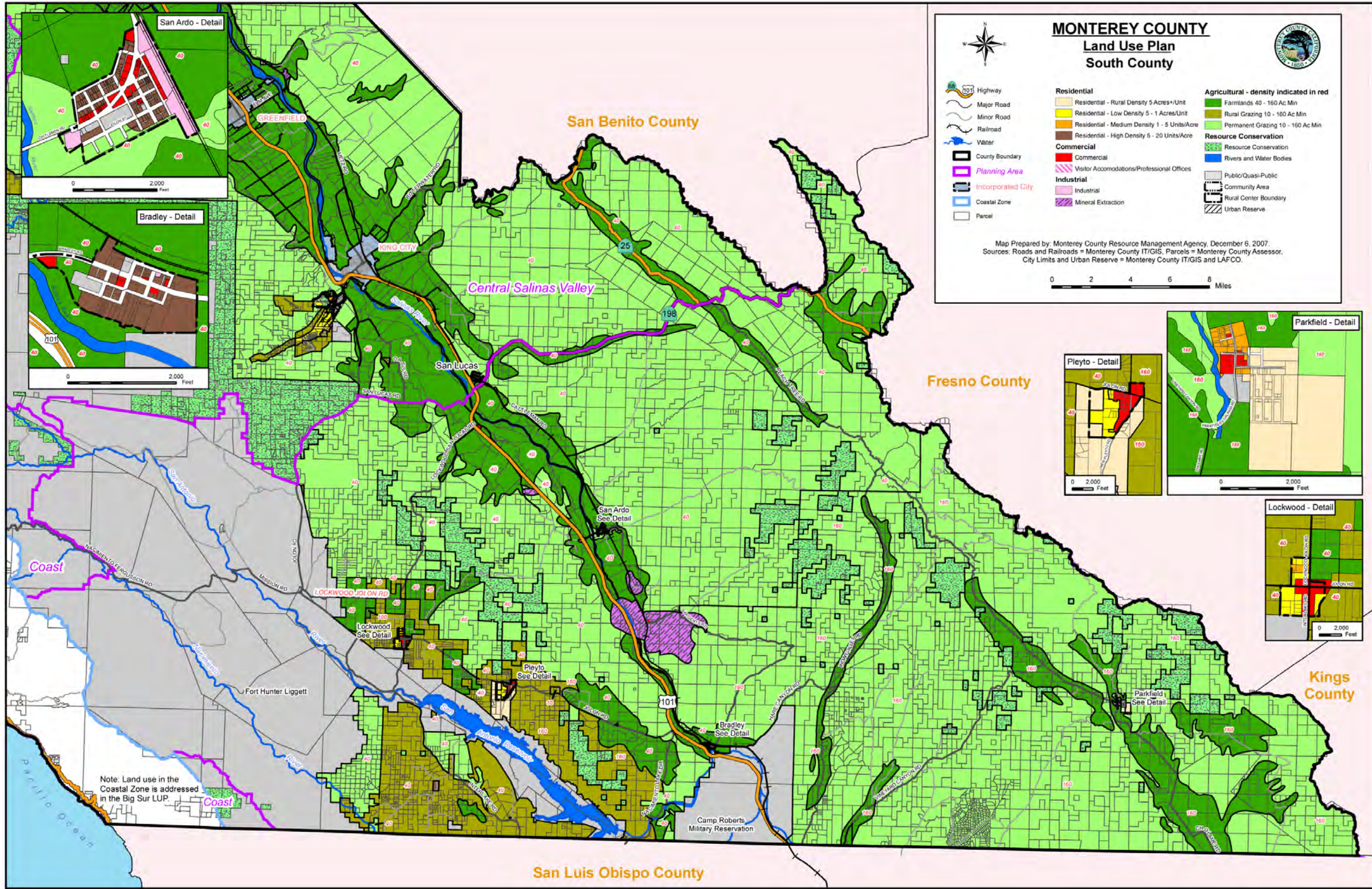
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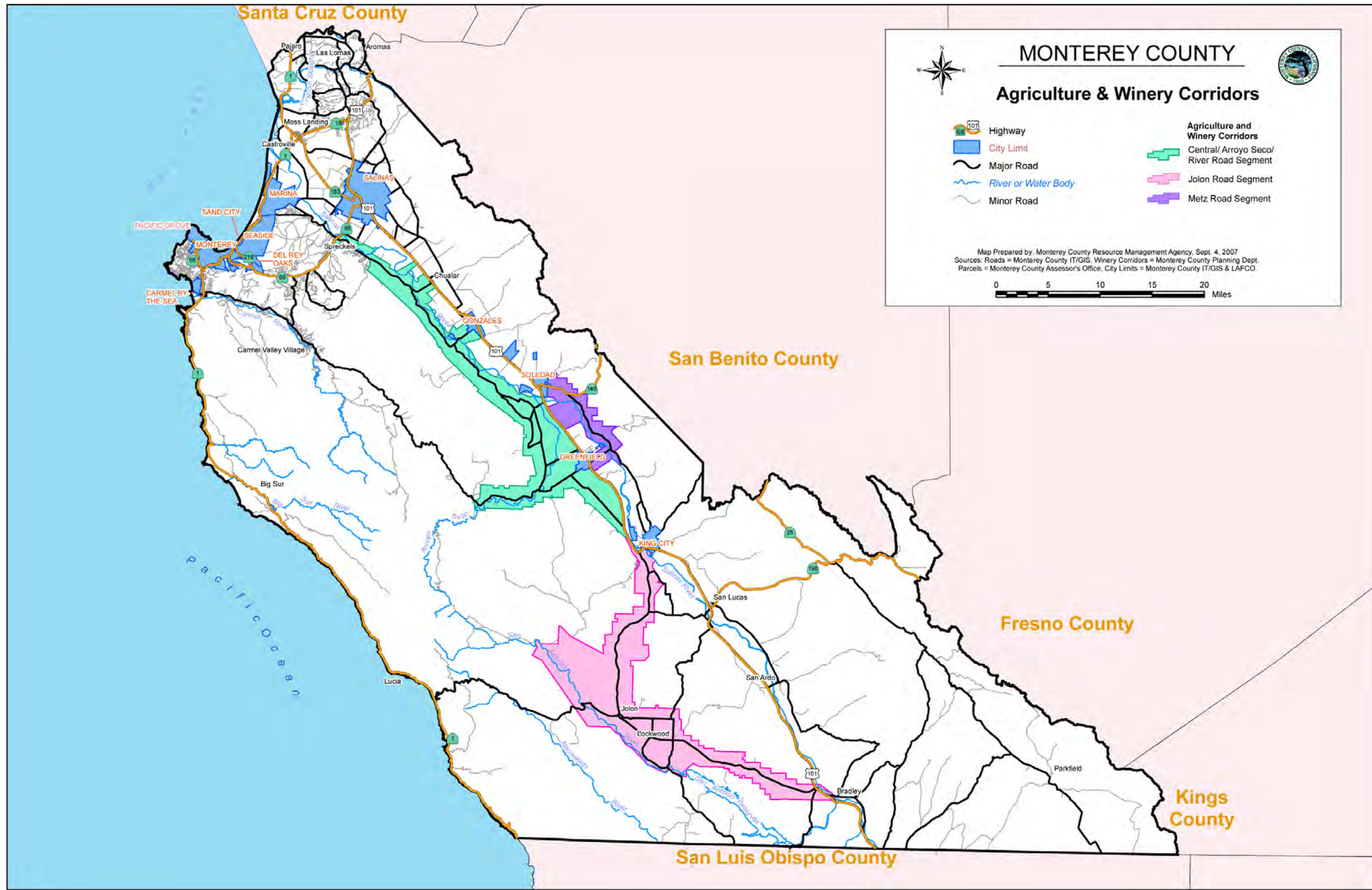
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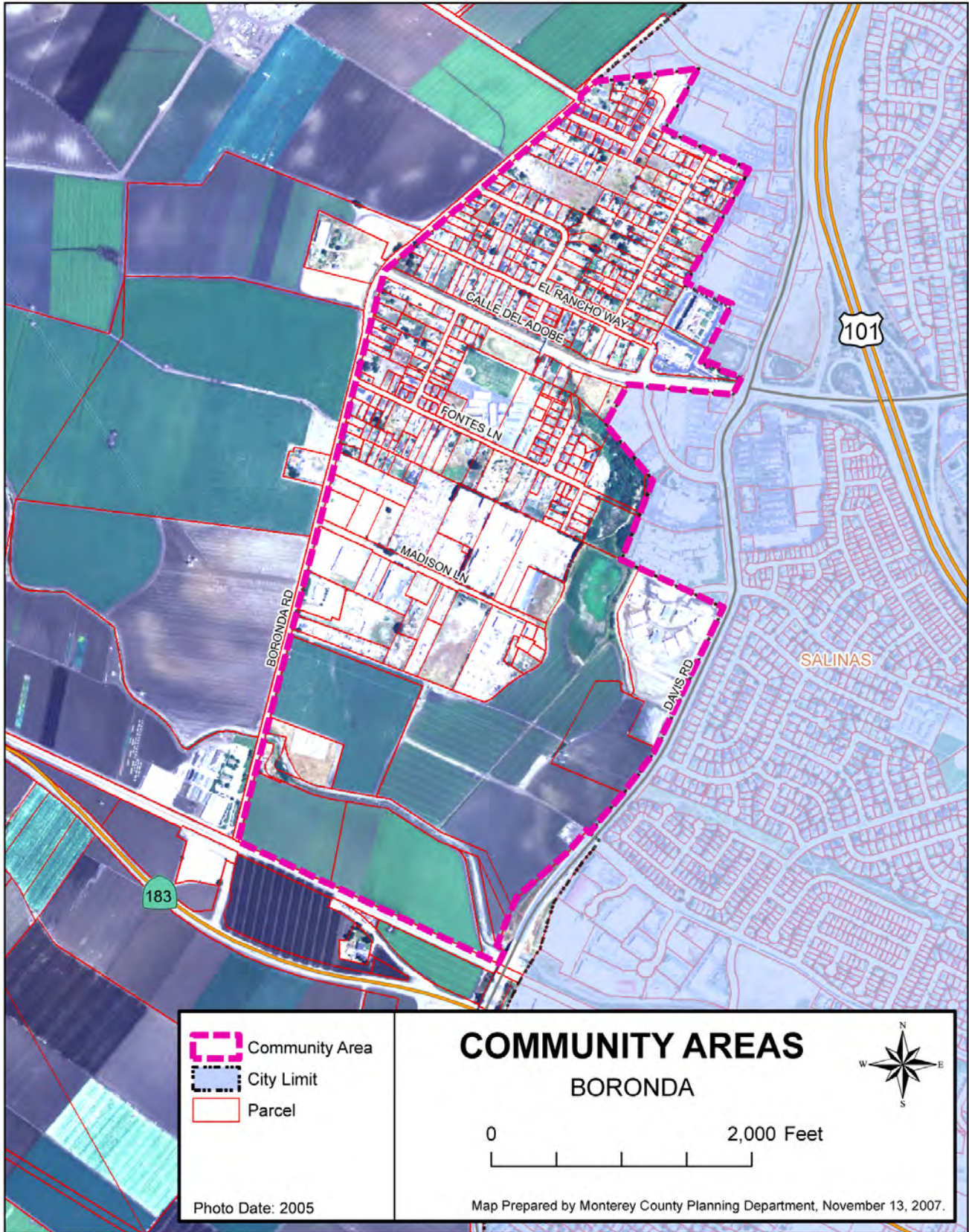
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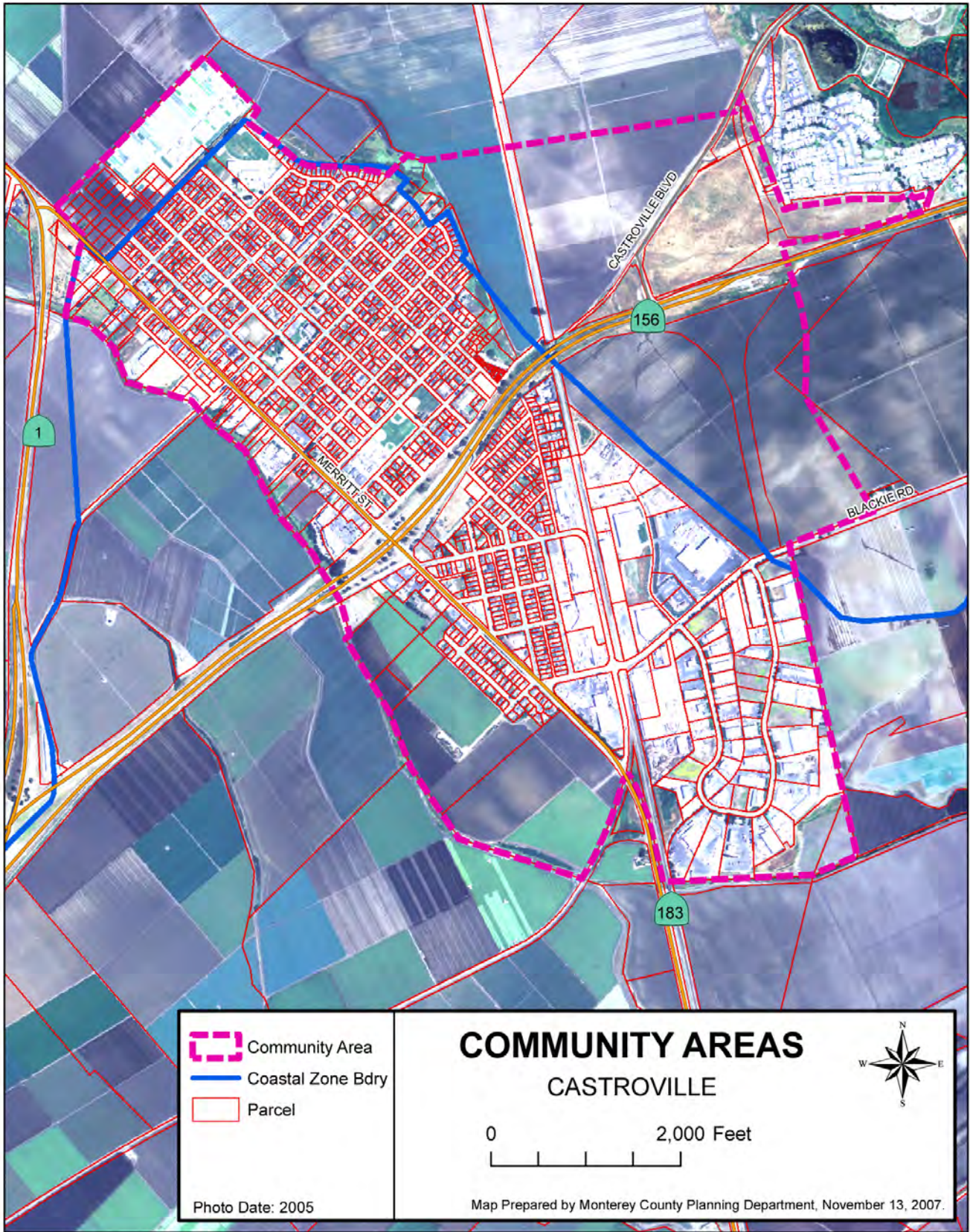


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The boundary for the Chualar Community Area will be established at a later date pursuant to LU-2.22.c

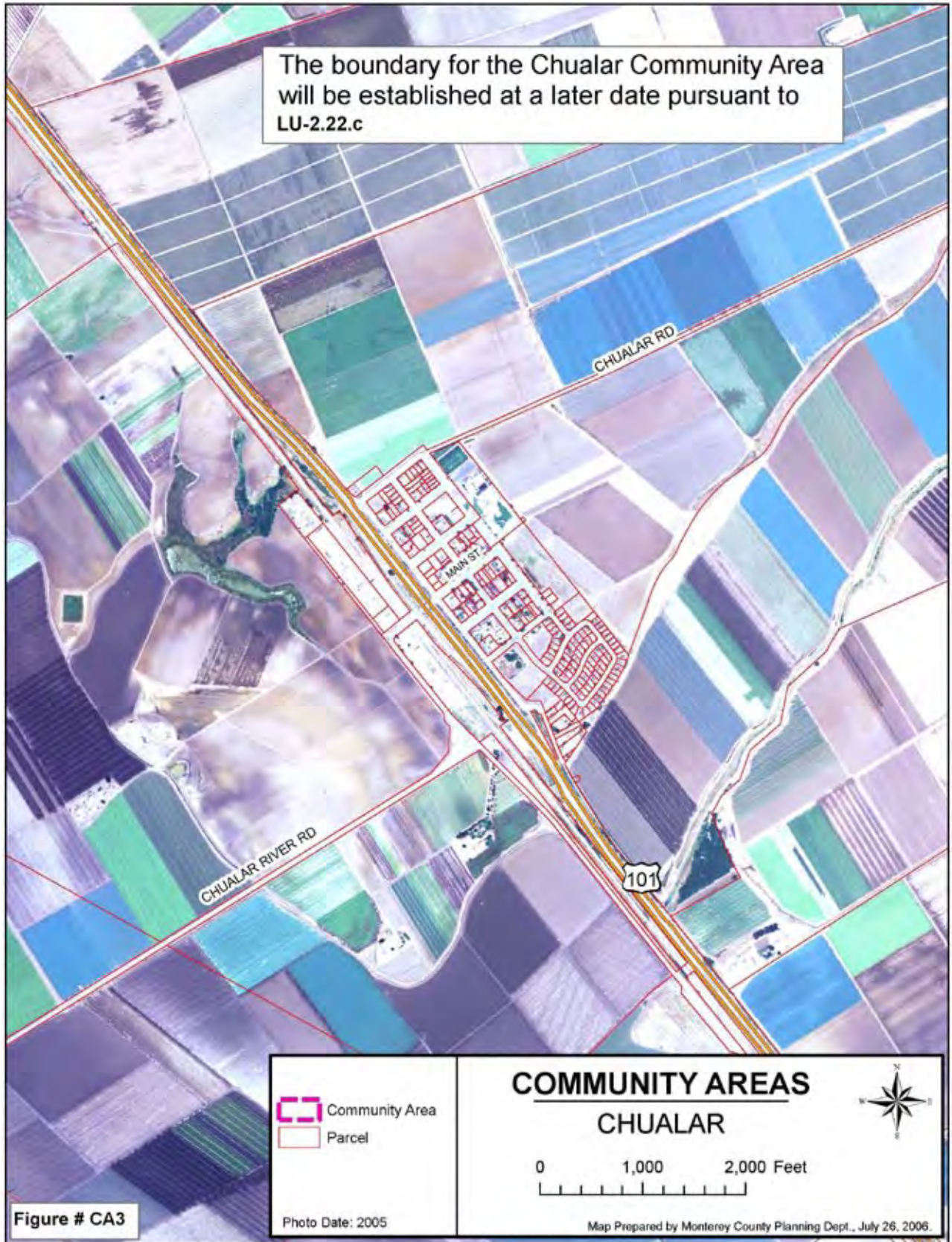
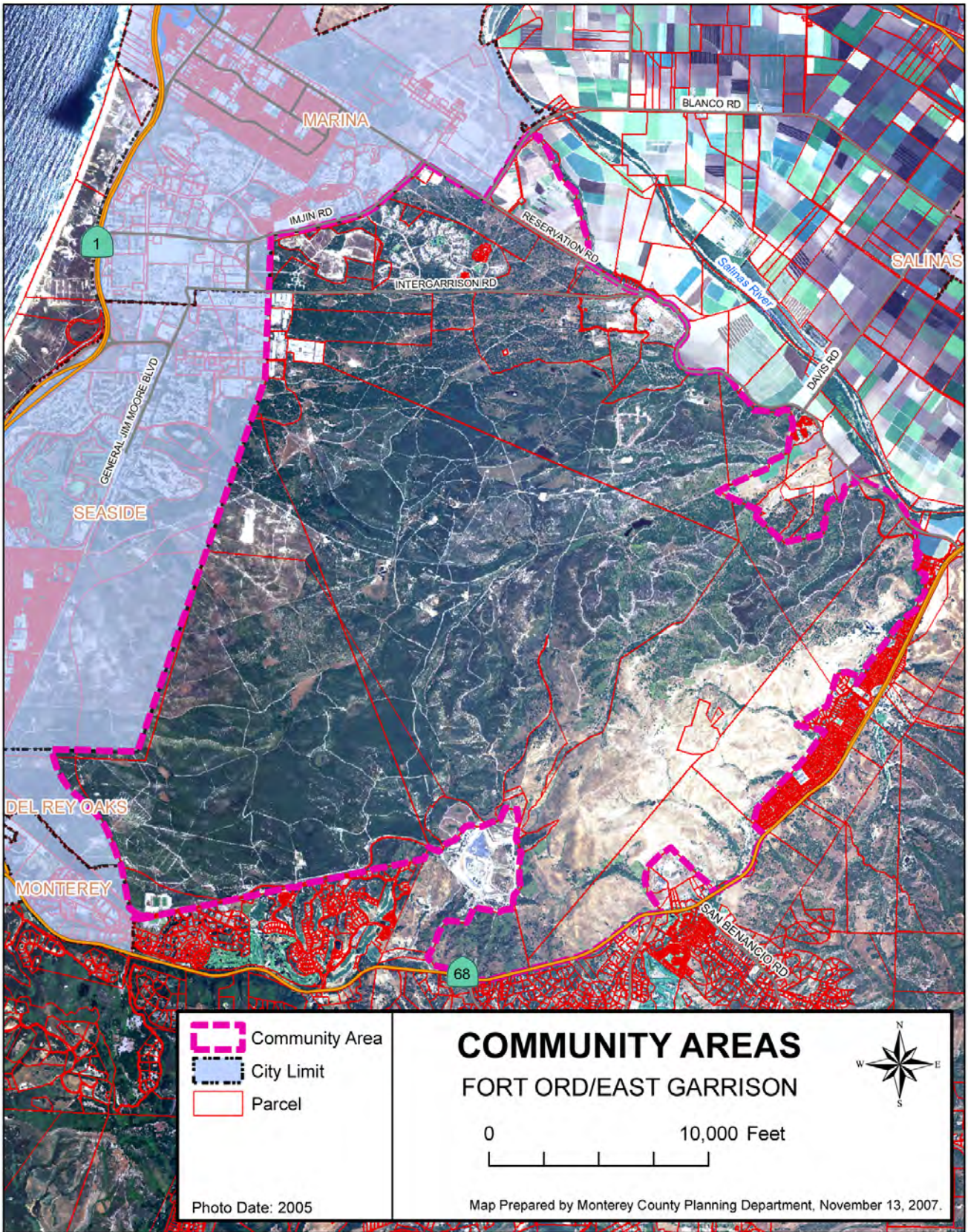


Figure # CA3

Photo Date: 2005

Map Prepared by Monterey County Planning Dept., July 26, 2006.

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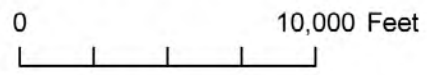


	Community Area
	City Limit
	Parcel

Photo Date: 2005

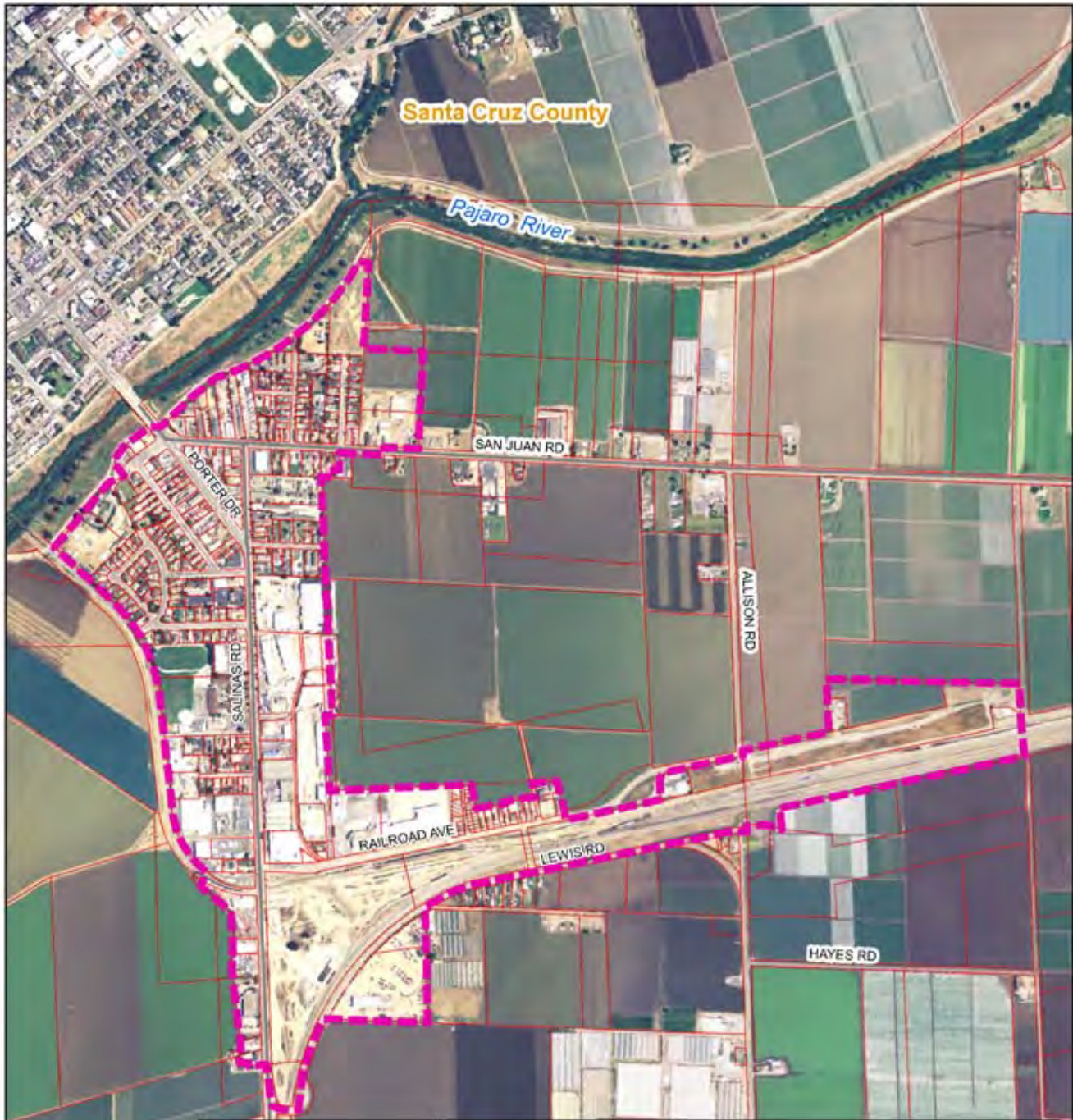
## COMMUNITY AREAS





### FORT ORD/EAST GARRISON



Map Prepared by Monterey County Planning Department, November 13, 2007.

00982.07 (06-08)



<p> Community Area</p> <p> Parcel</p>	<h2 style="text-align: center;">COMMUNITY CENTERS</h2> <h3 style="text-align: center;">PAJARO</h3> <div style="text-align: center;">  <p>0      1,000 Feet</p>  </div> <p style="text-align: center; font-size: small;">Map Prepared by Monterey County Planning Department, November 13, 2007.</p>
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**Figure # CA5**

Photo Date: 2005

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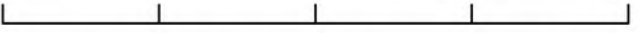


 Rural Center  
 Parcel


Photo Date: 2005

**RURAL CENTERS**  
BRADLEY

0



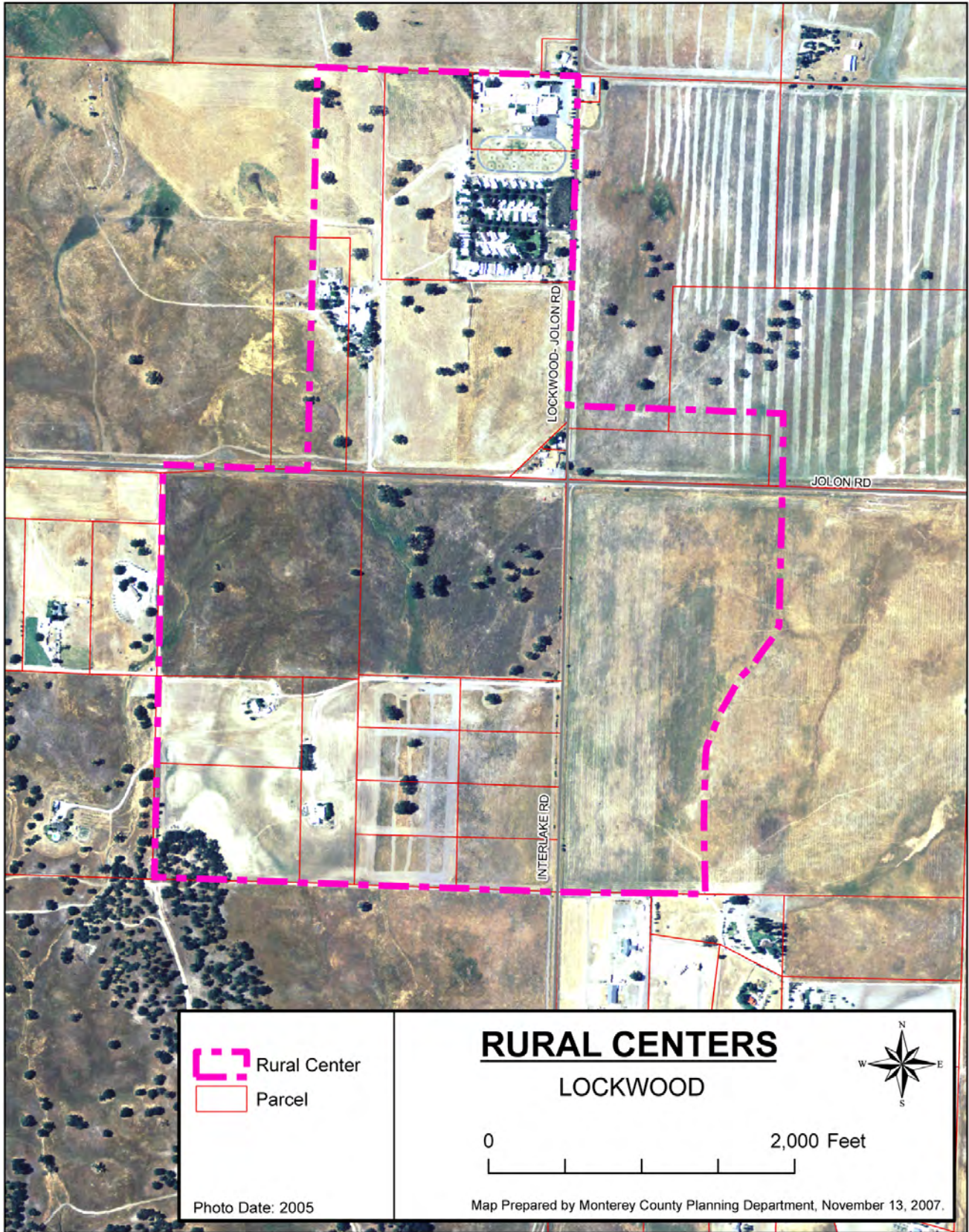
2,000 Feet



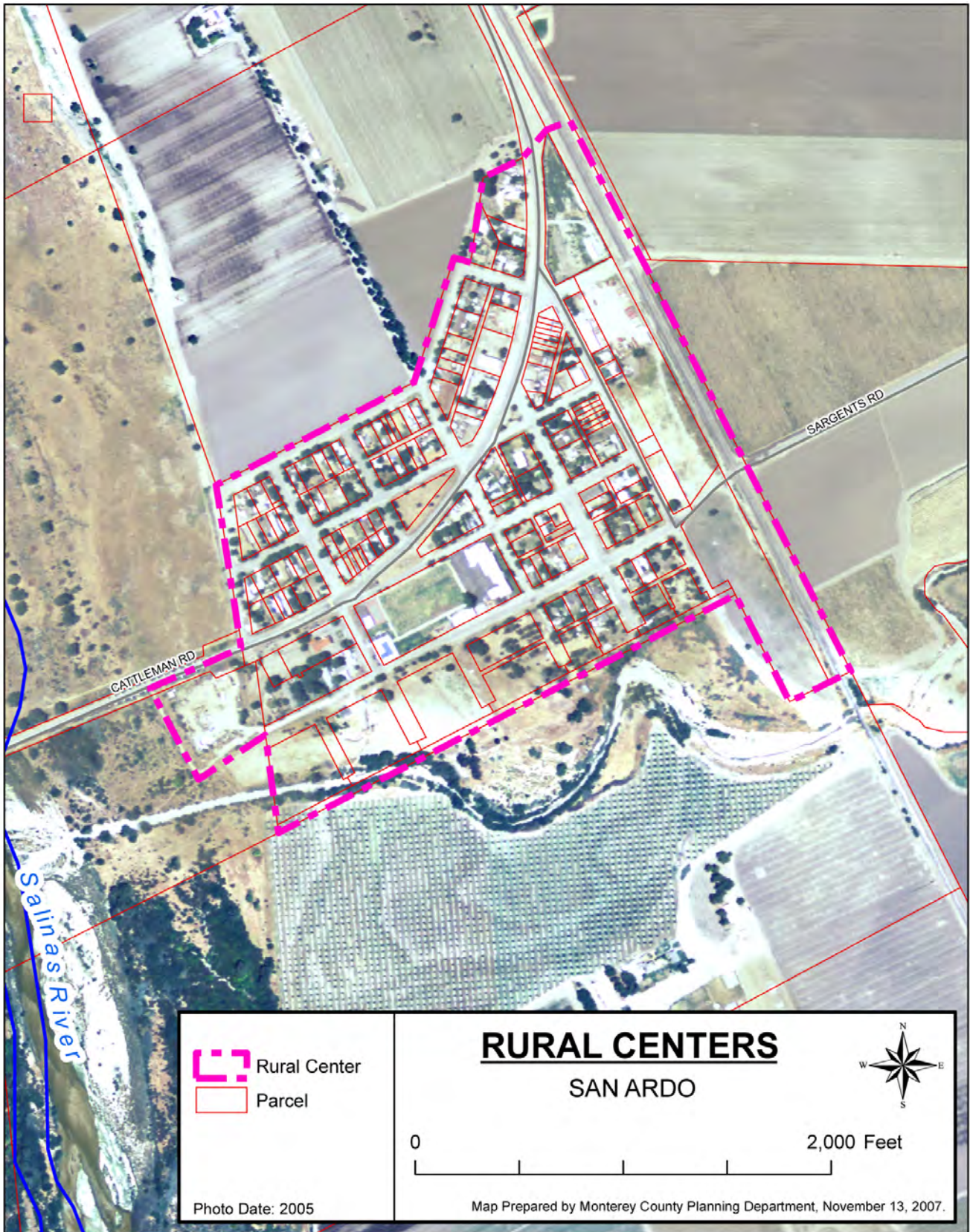
Map Prepared by Monterey County Planning Department, November 13, 2007.

00982.07 (06-08)



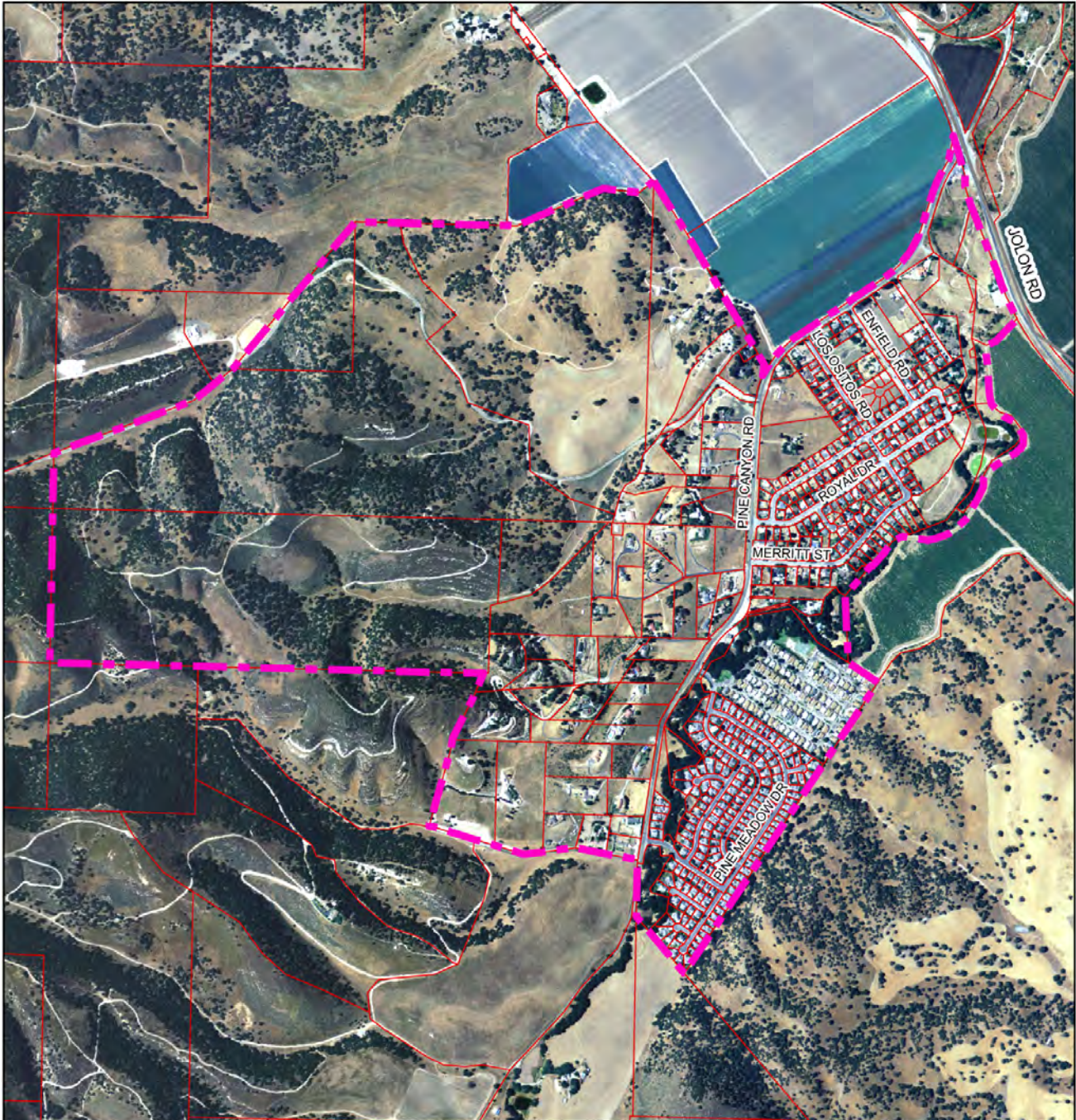




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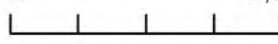
00982.07 (06-08)






 Rural Center  
 Parcel  
 Photo Date: 2005

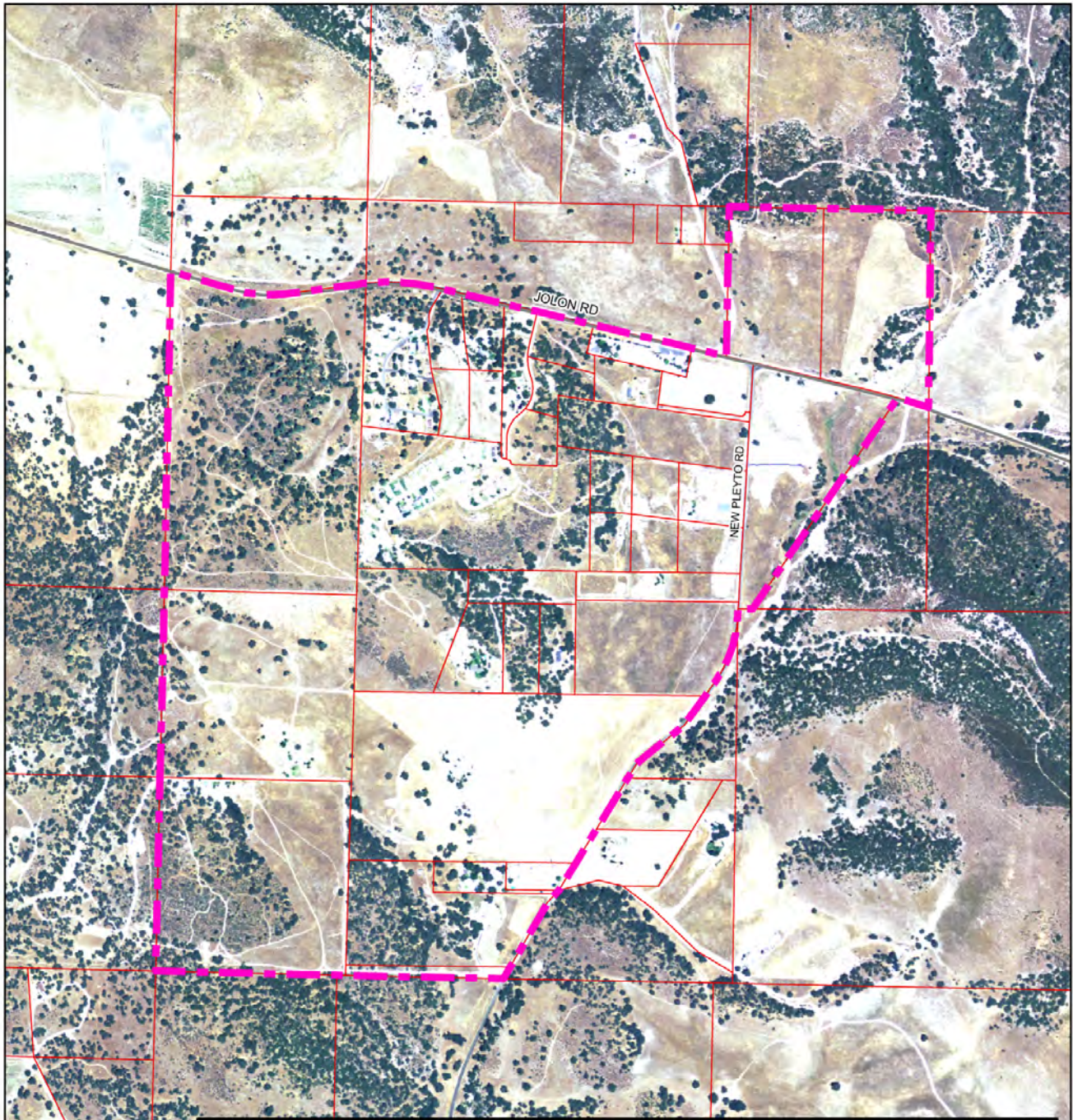
**RURAL CENTERS**  
 PINE CANYON



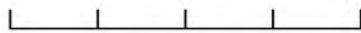
0                      2,000 Feet  




Map Prepared by Monterey County Planning Department, November 13, 2007.





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 Rural Center  Parcel	<h2><u>RURAL CENTERS</u></h2> <h3>PLEYTO</h3> <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <p>0 <span style="margin-left: 150px;">2,000 Feet</span></p>  </div> <div> </div> </div> <p>Photo Date: 2005</p> <p>Map Prepared by Monterey County Planning Department, November 13, 2007.</p>
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00982.07 (06-08)



<p> Rural Center</p> <p> Parcel</p> <p>Photo Date: 2005</p>	<h2 style="text-align: center;">RURAL CENTERS</h2> <h3 style="text-align: center;">SAN LUCAS</h3> <div style="text-align: center;">  <p>0                      1,000 Feet</p>  </div> <p style="text-align: center;">Map Prepared by Monterey County Planning Department, November 13, 2007.</p>
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005982.07 (06-08)



00982.07 (06-08)



00982.07 (06-08)



	Affordable Housing Overlay	
	Parcel	
<h3>AFFORDABLE HOUSING OVERLAY AREAS</h3>		
<h4>Highway 68 &amp; Reservation Road</h4>		
<p>0 <span style="margin-left: 150px;"> </span> <span style="margin-left: 50px;"> </span> <span style="margin-left: 50px;"> </span> <span style="margin-left: 50px;"> </span> <span style="margin-left: 50px;"> </span> 1,000 Feet</p>		
Photo Date: 2005	Map Prepared by Monterey County Resource Management Agency, November 16, 2007.	

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## Section 4

# Environmental Impacts

This chapter presents the analyses of the environmental setting, environmental impacts of the proposed project, and mitigation measures. Short- and long-term beneficial and adverse impacts on the physical (natural and built) environment are discussed. This chapter is divided into the sections listed below.

- Section 4.1, Land Use
- Section 4.2, Agricultural Resources
- Section 4.3, Water Resources
- Section 4.4, Geology, Soils, and Seismicity
- Section 4.5, Mineral Resources
- Section 4.6, Transportation
- Section 4.7, Air Quality
- Section 4.8, Noise
- Section 4.9, Biological Resources
- Section 4.10, Cultural Resources
- Section 4.11, Public Services and Utilities
- Section 4.12, Parks and Recreation
- Section 4.13, Hazardous Materials
- Section 4.14, Aesthetics, Light, and Glare
- Section 4.15, Population and Housing
- Section 4.16, Climate Change





## 4.1 Land Use

### 4.1.1 Abstract

Agriculture is the largest land use in Monterey County, and represents about 56% of the total land area in the county. The second largest land use, about 23.5% of the total land area, consists of public and quasi-public land uses such as parks, military facilities, recreational and community facilities. Approximately 4.8% of Monterey County (including the incorporated cities) is developed with residential, commercial, and industrial land uses. The remaining 16% is in resource conservation or other land uses. Most of the urban development is concentrated in the northern one-third of the county, near several incorporated cities including Salinas, Marina and Monterey. Likewise, most of the county's population is concentrated in the incorporated cities located in the northern one-third of the county. A quarter of the county residents live in unincorporated areas. The largest unincorporated communities are Prunedale, Castroville, Carmel Valley, Del Monte Forest, and Pajaro.

Most population growth has occurred within the cities. As described in Section 4.15, Population and Housing, cities currently account for approximately 75% of the total county population. In 1980, cities accommodated about 71% of the total population. Proposed county policies would encourage this trend and limit urbanization within the county to Community Areas and Rural Communities, with density enhancements available within defined Affordable Housing Overlay areas. Additional proposed policies would support continued agricultural use.

All potential land use impacts from development and land use activities proposed by the 2007 General Plan would be less than significant and would not require mitigation.

### 4.1.2 Environmental Setting

#### 4.1.2.1 Existing Land Use

Monterey County contains a broad array of land use types, as summarized in Section 3, Project Description, Table 3-4, "Countywide General Plan Land Uses." The largest land group in the County is agricultural land, followed by public and quasi-public lands (consisting mostly of federal and state lands). Urban development is primarily located along Monterey Bay and in the Salinas Valley. Rural and semi-rural development is scattered throughout the county.

## 4.1.2.2 1982 General Plan

Monterey County's most recent General Plan was adopted by the Board of Supervisors in September 1982. The existing 1982 General Plan has been amended numerous times over the past 26 years to include the seven Area Plans, the Carmel Valley and Fort Ord Master Plans, the Local Coastal Plans, several specific plans, and various property owner requests for land use re-designations. The acreage of each land use category in the existing 1982 General Plan, as amended, is summarized in Section 3, "Project Description," in Table 3-4, "Countywide General Plan Land Uses."

The Land Use Element of the 2007 General Plan establishes policies to designate the general distribution and intensity of residential, commercial, industrial, agricultural, public facilities, and open space uses of the land in the county. The main vision of the Land Use Element is to create a general framework that encourages growth within or near developed/developing areas in order to reduce impacts to agricultural production, natural resources, or public services. Areas where development would be encouraged include incorporated cities and designated community areas where existing services are available. These areas would be subject to additional levels of planning consisting of the general plans adopted by cities, and community plans or specific plans to be adopted by the Board of Supervisors for the community areas. In addition, the 2007 General Plan designates rural centers where development has already occurred and that would be allowed to develop in a semi-rural character (Monterey County 2007).

The 2007 General Plan consists of policies that apply countywide and policies unique to a specific region. Countywide policies are applicable to the entire unincorporated area and are included in the Land Use Element. More focused policies that address specific regional or local issues are found in Area Plans (Monterey County 2007).

The Conservation and Open Space Element of the 2007 General Plan guides the county in the long-term conservation and preservation of open space lands and natural resources while protecting private property rights. The County's intent is not to alter existing regional, State or Federal laws or regulations, but rather to enable greater cooperation among public agencies and the public to share management responsibilities in accomplishing a shared goal of conserving and protecting the resources of the region (Monterey County 2007). Among the more prominent features within Monterey County are the Santa Lucia and Gabilan Mountain Ranges, the Salinas and Carmel Valleys, and about 100 miles of coastline. Of special note are such features as the Elkhorn Slough (North County), sandy beaches of Monterey and Carmel Bays, and the rocky shores/cliffs of the Monterey Peninsula and the Big Sur coast.

## Area Plans and Master Plans

Following the adoption of the existing General Plan in 1982, the County prepared and adopted area plans for seven sub-areas: North County, Greater Salinas,

Central Salinas Valley, Greater Monterey Peninsula, Toro, Cachagua, and South County. Each Area Plan contains supplemental policies intended to more specifically guide future land use activities in accordance with the local characteristics of each area. The locations of the Area Plans are depicted in Section 3, Project Description, Exhibit 3-2, and are further detailed in Exhibits 3-3 through 3-10. The existing 1982 General Plan land use designations within each Area Plan are also summarized in Section 3.

In addition to the Area Plans, the County prepared and adopted two master plans within the *Greater Monterey Peninsula Area Plan* to further guide land use activities in two unique areas of the County. The *Carmel Valley Master Plan* was adopted in 1986, and the *Fort Ord Master Plan* was adopted in 2001. The *Carmel Valley Master Plan* establishes detailed land use policies designed to preserve the semi-rural character and natural features of Carmel Valley. Land use policies in the *Fort Ord Master Plan* are designed to facilitate redevelopment of the former U.S. Army installation to civilian uses.

## Local Coastal Program

The proposed 2007 General Plan is not proposing any changes to the County's Local Coastal Program. The following is presented as general background on state regulations within the coastal area. Any future proposals to amend any of the Local Coastal Programs would be separate from the proposed 2007 General Plan.

Pursuant to the California Coastal Act, Monterey County amended its General Plan in the 1980s to adopt a Local Coastal Program (LCP) made up of land use plans (policy) and coastal implementation plans (regulatory) that govern land use within the coastal zone. Monterey County's LCP consists of four planning areas: North County—Coastal, Del Monte Forest, Carmel Area, and Big Sur Coast. Policies for development within these areas are established in land use plans that have been certified by the California Coastal Commission (CCC). In addition, the *North County Land Use Plan* includes the *Moss Landing Community Plan* (a component of the *Coastal Land Use Plan*), which serves as a master plan for that community.

As stipulated in the Coastal Act, the CCC has authority to certify land use policy in the coastal zone. CCC retains land use authority in areas of original jurisdiction and for all work below the mean high tide level. In addition, CCC has limited appeal authority over the following coastal permit applications (Chapter 20.88 Capital Improvement Program [CIP]):

- Approved projects between the sea and the first through public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tide line of the sea where there is no beach, whichever is the greater distance.

- Approved projects in county jurisdiction located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, or stream or within 300 feet of the top of the seaward face of any coastal bluff.
- Any approved project involving development that is permitted in the underlying zone as a conditional use. Uses listed as principal uses are not appealable to the CCC unless they fall within the above categories by location.
- Any project involving development that constitutes a major public works project or a major energy facility.

Section 30241 of the California Coastal Act also serves as a regulatory framework for agricultural uses in the coastal zone. That section states:

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the area's agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

- (a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.
- (b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would compete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.
- (c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.
- (d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.
- (e) By assuring the public service and facility expansions and nonagricultural development do not impact agricultural viability, either through increased assessment costs degraded air and water quality.
- (f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands. (Amended by: Ch. 1066, Stats. 1981; Ch. 43, Stats. 1982.)

## 4.1.3 Regulatory Framework

### 4.1.3.1 Federal and State

#### Habitat Conservation Plans

The U.S. and California Endangered Species Acts prohibit unauthorized take of species listed as endangered or threatened. The meaning of "take" includes deliberate harm, such as trapping or shooting, but also unintentional harm that occurs incidental to an otherwise lawful activity, such as residential or commercial development. A Habitat Conservation Plan (HCP), under section 10(a)(2)(A) of the Endangered Species Act, is a planning document that is a mandatory component of an Incidental Take Permit application. Both the California Endangered Species Act (CESA) and the federal Endangered Species Act (ESA) contain requirements and restrictions for incidental take, but only the federal ESA specifically requires an HCP. An approved HCP allows the property owner to harm a listed species or its habitat in order to carry out an approved land use, providing that other habitat is protected to benefit the listed species. An HCP must ensure that the effects of the authorized incidental take will be adequately minimized and mitigated to the maximum extent practicable. An Incidental Take Permit allows a project to have a negative impact on endangered species as long as mitigation identified in the HCP is provided. An HCP contains the following components: an assessment of impacts likely to result from the proposed taking of one or more Federally listed or unlisted species; measures the applicant will undertake to monitor, mitigate and minimize the impact on wildlife; funding sources that will be available to implement the plan; procedures to deal with unforeseen circumstances; and alternative actions that the applicant analyzed and the reasons why the applicant did not adopt such alternatives. HCPs vary in size from several acres to several hundred-thousand acres. There are several HCPs in Monterey County, including the Post Ranch Inn HCP in Big Sur (approved 2006), the Sarment Property HCP in Carmel Highlands (approved 2007), and the Wildcat Line LP HCP in Carmel Highlands (approved 2001). A Habitat Management Plan has been adopted for Fort Ord, but that is not an HCP.

#### Natural Community Conservation Plans

In 1991, California's Natural Community Conservation Planning Act (NCCPA) was enacted to implement broad-based planning that balances appropriate development and growth with conservation of wildlife and habitat (California Fish and Game Code, Section 2800 *et seq.*). Pursuant to the NCCPA, local, state, and federal agencies are encouraged to prepare Natural Community Conservation Plans (NCCPs) to provide comprehensive management and conservation of multiple species and their habitats under a single plan, rather than through preparation of numerous individual plans on a project-by-project basis. The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale while accommodating compatible land use. An approved

NCCP provides for take of species whose conservation and management are provided for in the Plan (California Fish and Game Code Section 2835). To be approved by the California Department of Fish and Game (DFG), an NCCP must provide for the conservation of species and protect natural communities within the plan area in perpetuity. While HCPs are required for compliance with the federal ESA, participation in NCCPs is voluntary. There are no proposed or approved NCCPs in Monterey County.

### **4.1.3.2 California Housing Element Law**

Housing Element Law (Government Code Section 65580, et seq.) requires the County to adopt a housing element as part of its general plan. In brief, the housing element must identify the housing needs of all economic segments of the community and designate sufficient land with compatible zoning to meet that need. Because meeting the housing need depends upon the private sector, and the economics of housing tends to favor the production of market-rate housing, the most challenging portion of overall housing need to meet is affordable housing (i.e., housing for very low-income, low-income, and moderate income market segments). Housing Element Law establishes the process by which the County is assigned a portion of the regional housing need, as projected by the State Housing and Community Development Department (HCD) and AMBAG. The housing element is subject to review by HCD to determine its consistency with Housing Element Law.

### **4.1.3.3 Local**

#### **Local Agency Formation Commission of Monterey County**

A Local Agency Formation Commission (LAFCO) is a regulatory agency with county-wide jurisdiction established by state law to discourage urban sprawl and to encourage orderly and efficient provision of public services, such as water, sewer and fire protection. In California, LAFCO actions are governed by the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. LAFCOs are responsible for reviewing and approving proposed jurisdictional boundary changes, including the annexation and detachment of territory to or from cities and most special districts, formations of new special districts, and consolidations of existing districts. In addition, LAFCOs must determine and approve spheres of influence for each city and district within a county.

The broad mission of the Monterey County LAFCO is to provide for an orderly pattern of growth that reconciles the varied needs of the multiple jurisdictions within the County. One of the fundamental principles of the Monterey County LAFCO is to ensure the establishment of an appropriate and logical municipal government structure for the distribution of efficient and appropriate public services. Monterey County LAFCO land use objectives include the following:

- Discouraging urban sprawl;

- Preserving of the physical and economic integrity of agricultural lands;
- Preserving open space within urban development patterns;
- Promoting the orderly formation and development of agencies by shaping local agency boundaries;
- Minimizing the number of agencies providing services to a given area; and
- Utilizing Spheres of Influence to guide future development of agency boundaries.

#### **4.1.3.4 Growth Management Policy**

The 2007 General Plan has its basis in the following Growth Management Policy adopted by the Board of Supervisors in October 1979:

Managed growth must be incorporated into the General Plan of the County. In so doing, the General Plan must be written to include appropriate growth areas within the County. These areas must recognize the diversity among the lands of the County and provide for the planning of each area in a way that utilizes its unique characteristics. The policies for each planning areas to be defined within the General Plan must countenance differences between the planning areas in terms of natural resources, physical and environmental attributes, economic development, and sociocultural development. Furthermore, growth areas shall be designated only where there is provision for an adequate level of services and facilities such as water, sewer, fire protection, and drainage, and be coordinated with school authorities.

The Growth Management Policy establishes a land use policy within the county to preserve vast areas of agricultural lands and natural open space and to establish areas of suburban developments and a number of more urban unincorporated communities.

The Growth Management Policy states that growth must be managed in the County and identifies appropriate growth areas. Growth areas are to be designated where provision for an adequate coordination with school authorities can be achieved. The Growth Management Policy also states that urban development should be discouraged in areas lying outside the boundaries of urban service areas and limits premature and unnecessary conversion of open space outside the urban service areas. New areas of development concentration are to be encouraged if they can be shown to achieve other aspects of growth management, such as preservation of prime agricultural lands or the protection of other natural resources. New areas of development concentration are to provide urban services such as water, sewage treatment, roads, commercial facilities, schools, and fire protection. The Community Area designation in the 2007 Plan is the successor to this concept. The area of development concentration designation will not longer be included in the General Plan.

### **4.1.3.5 2007 General Plan Goals and Policies**

The 2007 General Plan Land Use Element establishes goals and corresponding policies to address land use impacts.

## **4.1.4 Project Impacts**

This section describes the CEQA impact analysis relating to land use and plan consistency for the proposed project. It describes the methods used to determine the proposed project's impacts and lists the thresholds used to conclude whether an impact would be significant. If applicable, measures to mitigate (avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

### **4.1.4.1 Methodology**

The analysis assesses potential conflicts that could arise from proposed land use policies and designations associated with the implementation of the 2007 Monterey County General Plan. The thresholds of significance listed below are used to determine whether the proposed project would result in significant environmental impacts.

### **4.1.4.2 Thresholds of Significance**

Criteria for determining the significance of impacts related to land use and planning are based on criteria set forth in Appendix G of the State CEQA Guidelines (14 Cal. Code Regs. §15000 et seq.). Implementation of the 2007 General Plan would cause a significant impact on land use if it would result in any of the conditions listed below.

- Physically divide an established community;
- Conflict with any applicable land use plans or policies adopted by agencies with jurisdiction over the Project area (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

### **4.1.4.3 Impact Analysis**

Implementation of the 2007 General Plan to the 2030 planning horizon and buildout in the year 2092 would designate growth and increased densities in



specific areas, such as in the Community Areas, Rural Centers, Affordable Housing Overlay Areas. However, growth areas would be designated only where an adequate level of services and facilities such as water, sewerage, fire and police protection, transportation, and school exists or be assured.

## **Division of an Established Community**

**Impact LU-1: Implementation of the 2007 General Plan would potentially result in the physical division of established communities. (Less-Than-Significant Impact.)**

### **2030 Planning Horizon**

#### **Impact of Development with Policies**

Implementation of the 2007 General Plan to the 2030 planning horizon would result in changes to land use designations in several areas of the County. The areas that could be affected include the Community Areas, Rural Centers, and AHOs because the anticipated intensification of land uses in these areas would potentially result in the division of established communities. Examples of such intensification include new urban development and new infrastructure that could create physical barriers between existing community elements, such as residential areas and parks.

However, the 2007 General Plan land use patterns and policies are designed to ensure that there would be no division of an established community. Some areas where population has started to establish under prior plans are identified as Community Areas or Rural Centers. The following policy discussion describes the applicable policies and how this impact would be avoided.

#### **2007 General Plan Policies**

The 2007 General Plan and Area Plan policies summarized below set forth comprehensive measures to avoid and minimize adverse impacts of the physical division of an established community.

#### **Land Use Element**

A number of the Land Use Element Policies between LU-1.1 and LU-1.20 (city-centered growth) discourage the division of established communities and the introduction of incompatible land uses. Policy LU-1.2 (scattered development) discourages premature and scattered development. Policy LU-1.4 (adequate services) designates growth areas only when an adequate level of services and public facilities exist. Policy LU-1.5 (land use compatibility) stipulates that land uses be designated to achieve compatibility with adjacent uses. Policy LU-1.7 (clustering) encourages clustering of residential development to those

portions of the property which are most suitable for development. Policy LU-1.9 (infill) promotes infill of vacant non-agricultural lands in existing developed areas, and requires infill development to be compatible with surrounding land use and development. Policy LU-1.19 (overlay districts) designates Community Areas, Rural Centers and Affordable Housing Overlay districts as the top priority for development in the incorporated areas of the county. Outside of those areas, a Development Evaluation System (DES) shall be established to provide systematic, consistent, predictable, and quantitative methods for decision-makers to evaluate developments. Policies LU-2.15 through LU-2.18 (city-centered growth policies) encourage new urbanization to occur within the incorporated cities, rather than in the surrounding county area. Policies LU-2.21 through LU-2.29 (community area policies) stipulate that urbanization within the county will be limited to the Community Areas (first priority) and Rural Centers (second priority). The AHO policies will encourage higher density development in selected areas near existing development. Policies LU-2.27 through LU-2.33 (rural center policies) stipulate maintaining a village character while allowing greater intensity development in some areas.

Implementation of the 2007 General Plan policies listed above would expressly avoid the division of an established community, and would promote managed growth in specific locations in coordination with sound planning principles.

#### Area Plan Policies

The 2007 General Plan includes seven existing Area Plans and two existing Master Plans that establish detailed policies for development in specific geographical areas within the county. The 2007 General Plan provides additional supplemental policies specific to these areas to ensure that new development is compatible with existing developments, neighborhoods, and land uses.

#### *North County Area Plan*

North County Area Plan Policy NC-2.1 identifies rerouting Hwy 101 around the community of Prunedale. Therefore, this same policy would also address the physical division of the community of Prunedale by Hwy 101. The development criteria outlined in the North County Area Plan would not promote the physical division of Prunedale, or any other existing community within the North County Area Plan. In fact, the North County Area Plan outlines policies to re-route Hwy 101 around the community of Prunedale, which would in turn remove a physical barrier (Highway 101) within the community.

### ***Greater Salinas Area Plan***

Greater Salinas Area Plan Policies GS-1.1 through GS-1.12 identify multiple Special Treatment Areas (STAs) and Study Areas (SAs), including Butterfly Village, Spence/Potter/Encinal Road and Highway 68/Foster Road among others. These STAs and SAs establish specific standards to guide development at those locations. For example, GS 1.4 stipulates that development in the town of Spreckels would be allowed only under specific conditions, including the requirement that development would only occur within the land use boundary shown in the Area Plan. The development criteria outlined in the Greater Salinas Area Plan establishes specific standards to guide orderly development, and would not promote the physical division of an existing community within Greater Salinas.

### ***Central Salinas Valley Area Plan***

Central Salinas Valley Plan Policies CSV-1.3 through CSV-1.6 identify several STAs and SAs, including Spence/Potter/Encinal Roads and Old Mission Union School. These STAs and SAs establish specific standards to guide development at these locations. For example, CSV 1.4 stipulates that the minimum parcel size in the Spence/Potter/Encinal Roads SA shall be 10 acres so that the area remains in agricultural operations. In addition, prior to new development within the Spence/Potter/Encinal Roads SA, a cumulative impact analysis of the industrial build-out of the study area would be required. The development criteria outlined in the Central Salinas Valley Area Plan Policies establishes specific standards to guide orderly development, and would not promote the physical division of an existing community within the Central Salinas Valley.

### ***Greater Monterey Peninsula Area Plan***

Greater Monterey Peninsula Area Plan Policies GMP-1.6 through GMP-1.9 identify several STAs, including Rancho San Carlos and the San Clemente Ranch. These STAs establish specific standards to guide orderly development at these locations. For example, residential development within portions of the Santa Lucia Preserve (formerly Rancho San Carlos) must follow specific densities and policies. The development criteria outlined in the Greater Monterey Peninsula Area Plan establishes specific standards to guide orderly development, and would not promote the physical division of an existing community within the Greater Monterey Peninsula.

### ***Carmel Valley Master Plan***

Carmel Valley Master Plan Policies CV-1.22 through CV-1.26 identify STAs and set forth specific standards to guide orderly

development at those locations. STAs in the Carmel Valley Master Plan include the Carmel Valley Ranch, the Condon/Chugach Property, portions of the Santa Lucia Preserve Rancho San Carlos (formerly Rancho San Carlos) and the Gardiner/Tennis Club area. In addition, Policy CV-1.3 states that open spaces shall be located between the development areas in order to clearly define them and maintain a distinction between the more rural and more suburban areas of the valley. Policy CV-1.8 promotes cluster development and the preservation of open space. The development criteria outlined in the Carmel Valley Master Plan establishes specific standards to guide orderly development, and would not promote the physical division of an existing community within Carmel Valley.

#### ***Toro Area Plan***

Toro Area Plan Policy C-1.4 identifies the Greco STA and sets forth specific standards to guide orderly development at this location. Toro Area Plan policy T-1.2 prohibits industrial land uses (other than utilities) in the Toro Area. Therefore, the development criteria outlined in the Toro Area Plan establishes specific standards to guide orderly development, and would not promote the physical division of an existing community within the Toro area.

#### ***Cachagua Area Plan***

Cachagua Area Plan Policy CACH-1.5 identifies Syndicate Camp as a STA and sets forth standards to guide future development on that site. Cachagua Area Plan policy CACH-1.1 requires that new service centers located in Cachagua have low visibility, have safe and unobtrusive access and conform to all Area Plan requirements. Cachagua Area Plan policy CACH-1.3 prohibits industrial land uses (other than those that are agriculturally related) in the Cachagua Area. The development criteria outlined in the Cachagua Area Plan establishes specific standards to guide orderly development, and would not promote the physical division of an existing community within the Cachagua area.

#### ***South County Area Plan***

South County Area Plan Policy SC-1.1 allows only low residential densities on lands adjacent to Fort Hunter Liggett in order to prevent residential encroachment. South County Area 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. The development criteria outlined in the South County Area Plan establishes specific standards to guide orderly development, and would not promote the physical division of an existing community within the South County area.

### ***Agricultural Winery Corridor Plan***

The 2007 General Plan includes an Agricultural Winery Corridor Plan (AWCP) that is designed to promote the orderly development of an integrated wine industry in Monterey County. The AWCP designates three winery (roadway) corridors in the Salinas Valley, including the River Road Segment, the Metz Road Segment and the Jolon Road Segment. The AWCP serves as a type of Area Plan that provides a greater level of detail about how to address viticulture related uses within portions of three existing Planning Areas (Toro, Central Salinas Valley, and South County). The AWCP specifically outlines the planned and orderly development of wineries in specific areas of the Salinas Valley. In so doing, the AWCP specifically discourages the division of an established community by winery development within the Salinas development. Although the AWCP includes portions of the *Toro*, *Central Salinas Valley*, and *South County Area Plans*, the AWCP would not facilitate the division of an established community within the defined corridor.

### **Community Area Policies**

#### ***Fort Ord Master Plan***

The purpose of the Fort Ord Master Plan is to designate land uses and incorporate objectives, programs and policies to be consistent with the Fort Ord Reuse Plan (Reuse Plan) adopted by the Fort Ord Reuse Authority (FORA) in 1997. The plan incorporates all applicable policies and programs contained in the adopted Reuse Plan as they pertain to the Fort Ord military base. In addition, the Fort Ord Master Plan contains additional Design Objectives and land use description clarification to further the Design Principles contained in the adopted Reuse Plan. The area subject to the Fort Ord Master Plan are generally located within the central portion of the former Fort Ord military base. The city limits of the City of Marina are located to the north, the city limits of the City of Seaside are located to the west, and the City limits of the Cities of Monterey and Del Rey Oaks are located to the south. The primary goal of the Land Use Element of the Fort Ord Master Plan is to promote the orderly, well-planned, and balanced development to ensure educational, housing and economic opportunities as well as environmental protection. Therefore, the development policies outlined in the Fort Ord Master Plan would not promote the physical division of the former Fort Ord military base, or any surrounding community.

### **Significance Determination**

Implementation of the 2007 General Plan would result in the development of new urban areas and new infrastructure in the Community Areas, Rural

Centers, and AHOs. Additional development would occur on individual lots, but on a more limited basis due to the Development Evaluation System (LU-1.17), proof of long-term water supply (PS-3.1 through PS-3.3), infrastructure concurrency (PS-1.6), and other policies of the 2007 General Plan. There are about 4,629 lots of record within the unincorporated county, of varying sizes and development potential. Implementation of the 2007 General Plan and Area Plan policies would ensure that potential division of established communities is avoided or minimized through land use guidelines that emphasize orderly development and compatibility with surrounding land uses.

There are no planned infrastructure projects included in the 2007 General Plan that would divide established communities. The Transportation Agency of Monterey County (TAMC) fee program projects and county capacity enhancement projects listed in Section 4.6, Transportation, would result in changes to specific existing roads and highways by widening or adding turn lanes to selected roads, replacing at-grade road crossings with interchanges, modifying existing interchanges, and installing traffic signals. In accordance with standard practice, pedestrian crossings would be provided at all intersections. Because these are limited to existing roads, they will not physically divide any communities to a substantially greater extent than they are already divided by the road.

Accordingly, implementation of the 2007 General Plan would not result in significant community division impacts and therefore associated impacts would be less than significant.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

### **Significance Conclusion**

Implementation of the 2007 General Plan would not result in significant community division impacts and therefore associated impacts would be less than significant.

## **Buildout**

### **Impact of Development**

Buildout of the 2007 General Plan in the year 2092 would result in new urban development in urban areas beyond 2030 levels. By 2092, all of the existing lots of record will presumably be developed with at least a single-family residence. Because individual development does not create physical barriers, it would not physically divide any community.

In addition, implementation of the 2007 General Plan to the year 2092 would result in changes to land use designations in several areas of the county. The land uses within the Community Areas and Rural Centers would be more

dense (i.e., higher residential density, more intensive commercial use in some cases) than existing conditions. Policies of the 2007 General Plan, including LU-1.5, would discourage placing incompatible uses next to one another. This would avoid physical division of established communities.

#### 2007 General Plan Policies

Implementation of the 2007 General Plan policies listed above under the 2030 Planning Horizon would expressly avoid the division of an established community, and would promote managed growth in specific locations in the County through buildout in 2092.

#### **Significance Determination**

Buildout by 2092 would potentially result in the physical division of an established community within Monterey County. . The 2007 General Plan employs land use concepts such as city-centered growth and preservation of natural areas that would discourage the physical division of an existing community. Despite the 2007 General Plan and associated Area Plan policies, additional infrastructure improvements could result in community division if they include major new roads or rail lines that do not provide connections such as pedestrian crossings. However, whether such infrastructure would be built, as well as the types, locations, and mitigating design features of such future infrastructure are not known at this time. As a result, concluding that this might occur would be speculative. Accordingly, implementation of the 2007 General Plan up to the year 2092 would not result in the physical division of established communities. Therefore associated land use impacts would be less than significant.

#### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

#### **Significance Conclusion**

Implementation of the 2007 General Plan up to buildout in the year 2092 would not result in significant community division impacts. Therefore any associated community division impacts would be less than significant, and no mitigation is necessary.

## Conflict with Adopted Land Use Plans

**Impact LU-2: Implementation of the 2007 General Plan would potentially conflict with an adopted land use plan, general plan, specific plan, local coastal program or zoning ordinance adopted for the purpose of avoiding or mitigating an environmental effect. (Less-Than-Significant Impact.)**

### 2030 Planning Horizon

#### Impact of Development with Policies

A General Plan is by definition a comprehensive long-range planning document that serves as the blueprint for future growth in a particular jurisdiction. General Plans establish land use patterns for urban and rural development, agriculture, resource preservation, and public uses. Monterey County's 2007 General Plan has been drafted to be consistent with adopted local land use plans, LCPs, and zoning ordinances within the County.

Each incorporated city within the County has an adopted land use plan for its specific jurisdictional area. These plans include each city's vision for growth that may include expansion of the city's boundaries. To address this, the 2007 General Plan has considered desired growth within each city's general plan relative to the County's policies.

The County has offered consultation with cities as part of the process to prepare the 2007 General Plan. This consultation process is designed to identify potential land use conflicts and to develop strategies to address these potential conflicts. Below is a discussion of the various policies contained in the 2007 General Plan that address adopted land use plans within the County.

The County has adopted four Local Coastal Programs that, under the Coastal Act, contain policies and other measures to protect the environmental integrity of the California coast. The Local Coastal Programs for Big Sur Coast, Carmel Area, Del Monte Forest/Greater Monterey, and North County have been certified by the California Coastal Commission.

HCPs and NCCPs are also plans intended to avoid environmental impacts. However, they differ from the other land use plans discussed above because they are adopted pursuant to Federal and State law, and are unaffected by County policies. HCPs are required for projects under federal jurisdiction, whether they are federal projects or projects requiring federal permits, that would otherwise result in the "take" of one or more federally listed species. NCCPs are prepared where affected jurisdictions and property owners wish to comprehensively plan for the avoidance of take that might otherwise occur as a result of future development. Neither of these programs is dependent on County policies for its implementation.



## 2007 General Plan Policies

The 2007 General Plan Land Use Element establishes numerous policies that are intended to ensure consistency with adopted local land use plans and reduce inconsistencies with such plans.

### *Land Use Element*

Land Use Element Policy LU-2.15 (City-centered growth) promotes cooperation with the AMBAG and other cities to direct the majority of urban growth, including higher density housing development, into cities and their spheres of influence. This policy would in turn promote consistency between the 2007 General Plan and each city's sphere of influence policy.

Land Use Element Policy 2.16 (Urban reserve) applies an Urban Reserve Overlay where an incorporated city may expand (annex) or provide new infrastructure to a proposed project. Growth limits identified in an incorporated city's adopted general plan, and determined to be consistent with the County's 2007 General Plan, may be included as part of the Urban Reserve area. Development in an Urban Reserve area shall be determined by the County's underlying land use designation. The County would consult with the pertinent city regarding projects located within their Urban Reserve. Hence, this policy would promote consistency between the 2007 General Plan and the Urban Reserve policies.

Land Use Element Policy LU-2.17 (housing near employment centers) states that the County will coordinate with cities to maintain sufficient land areas designated for new housing close to employment centers. In addition, land use conflicts, competition and consumptive land use patterns are to be minimized. This policy would promote consistency between the 2007 General Plan and employee housing policies.

Land Use Element Policy LU-2.18 (LAFCO) states that the County, in coordination with cities and LAFCO, will designate spheres of influence to represent the probable 20-year growth area around each city. This 20-year growth area shall also be designated as an Urban Reserve overlay within the 2007 General Plan. In addition, any annexation request or request for a change in a city's boundaries or sphere of influence may be supported if is found to be consistent with the 2007 General Plan policies, including the following requirements: 1) directing city growth away from the highest quality farmlands, 2) providing adequate buffers along developing agricultural-urban interfaces, and 3) mitigating impacts to county infrastructure. This policy would reduce land use conflicts between the 2007 General Plan and each city's sphere of influence policy.

Land Use Element Policy LU-2.19 (County review) states that the County shall critically review development proposals and general plan amendments within cities to assure that the impacts of growth to the County's infrastructure are adequately quantified and fully mitigated. This policy would in turn reduce conflicts between the 2007 General Plan and the infrastructure needs of local cities.

Land Use Element Policy LU-2.20 (City review) states that the County shall refer amendments to the 2007 General Plan and zoning changes that would result in the creation of new residential, industrial, or commercial areas to the nearest cities for review and comment. This policy would reduce land use conflicts created by any future amendments to the 2007 General Plan, and would give each city the ability to influence the 2007 General Plan amendment process.

Land Use Element Policy LU-9.1 (General plan consistency with zoning) states that within three months after adoption of the updated General Plan, the Director of Planning shall bring to the Board of Supervisors for their approval a work program to update the County's land use regulations to ensure consistency with the General Plan. The work program would identify the regulations to be updated, the timeframe for the update and identify the resources needed to implement the work program. This policy would specifically promote consistency between the 2007 General Plan and the County's zoning ordinance once the 2007 General Plan is adopted.

In summary, the 2007 General Plan policies discussed above promote land use concepts that emphasize city-centered growth and discourage conflicts with existing land use policies and plans. Collectively, these land use consistency policies promote close coordination between the cities, LAFCO, AMBAG and the County regarding land use policies and designations within each city's sphere of influence. These policies would specifically reduce conflicts between the 2007 General Plan and locally-adopted land use plans.

### ***Open Space Element***

Open Space Policies OS-5.1 and OS-5.3 promote the conservation of threatened and endangered plants and special status wildlife species. Policy OS-5.4 provides for consultation with the U.S. Fish and Wildlife Service (USFWS) over federally protected species and mitigation of impacts (an HCP is mitigation of "take"). Policy OS-5.17 would allow County participation in the development of an NCCP, when pertinent to mitigating loss of critical habitat.

### Area Plan Policies

The 2007 General Plan includes Area Plans that establish policies for development that address conditions that are unique to specific geographical locations within the County. Each of the Area Plans described in this EIR is a component of the 2007 General Plan and is therefore consistent with all of its applicable goals and policies. Several of the Area Plans provide supplemental policies to ensure consistency with locally-adopted land use plans, thereby reducing inevitable inconsistencies with such plans. As an intrinsic component of the 2007 General Plan, the Area Plans would not conflict with an adopted land use plan or policy.

#### ***Agricultural Winery Corridor Plan***

The AWCP is a component of the 2007 General Plan and is consistent with all of its applicable goals and policies. The AWCP serves as a type of Area Plan that provides a greater level of detail of how to address viticulture related uses within portions of three Planning Areas (Toro, Central Salinas Valley, and South County). The AWCP is consistent with the goals and policies for each of the three affected Planning Areas, in addition to the 2007 General Plan as a whole. The AWCP policies provide a greater level of detail than either the 2007 General Plan or the affected Area Plans regarding how these uses will be handled. Included in the AWCP are general regulations, allowed uses, permitted uses, development standards, and design criteria that are intended to guide the development of wine-related facilities.

#### ***Local Coastal Program***

Monterey County prepared an LCP pursuant to the California Coastal Act that has been certified as consistent with the Coastal Act by the CCC. The LCP is implemented through four local coastal land use plans. The four local coastal land use plans in unincorporated Monterey County (*North County Land Use Plan*, the *Del Monte Forest Land Use Plan*, the *Carmel Land Use Plan*, and the *Big Sur Coast Land Use Plan*) contain separate goals and policies to address coastal development.

The four adopted local coastal land use plans contained in the existing 1982 Monterey County General Plan will not be amended as part of the 2007 General Plan. The 2007 General Plan's goals and policies have been developed with the LCPs in mind and do not contain any provisions that would conflict with the four adopted local coastal plans. The current distribution of planning roles between the general plan (effective in the unincorporated areas) and the LCPs (effective in the unincorporated coastal areas) will not be

changed by the 2007 General Plan. Therefore, no conflicts with the LCP would occur from implementation of the 2007 General Plan.

### ***LAFCO Policies***

In some instances, development projects within the 2007 General Plan would be required to comply with applicable Monterey County LAFCO requirements. LAFCO requirements apply to land development activities that involve annexations, changes in district boundaries, and other governmental reorganizations. These may result in the conversion of agricultural lands to urban uses, extension of utilities and service systems into previously unserved areas, and activities that alter existing agency boundaries—all of which are subject to LAFCO policies and additional CEQA review. LAFCO would review projects subject to its approval and would have the ability to approve or deny applications based on whether its criteria were met. Accordingly, no conflicts with LAFCO policies would occur from implementation of the 2007 General Plan because future development considered within the 2007 General Plan would be required to comply with all applicable Monterey County LAFCO requirements.

### ***Growth Management Policy***

The Growth Management Policy adopted by the Board of Supervisors in 1979 forms the underlying foundation of the entire 2007 General Plan. The 2007 General Plan incorporates the stated goals of the Growth Management Policy in its land use map, elemental policies, and Area Plan supplemental policies. The Growth Management Policy states that managed growth must be incorporated into the General Plan. In so doing, the General Plan must be written to include appropriate growth areas within the County. These areas must recognize the diversity among the lands of the County and provide for the planning of each area in a way that utilizes its unique characteristics. Growth areas shall be designated only where there is provision for an adequate level of services and facilities. The 2007 General Plan designates Community Areas and Rural Centers as the primary areas for future growth. This is consistent with the growth management policy. Accordingly, implementation of the 2007 General Plan would not conflict with the Growth Management Policy because the 2007 General Plan incorporates the stated goals of the policy throughout the entire General Plan.

### **Significance Determination**

The 2007 General Plan is a comprehensive update to the existing 1982 General Plan. As a comprehensive planning document, it establishes land use concepts, and sets forth goals and policies to guide future development

and preserve natural and agricultural areas from urban encroachment. Inherently, the goals and policies of the 2007 General Plan must be internally consistent with each other as well as with the supplemental policies of each Area Plan.

As discussed above, the goals and policies of the 2007 General Plan Land Use Element and those of the Area Plans are internally consistent. Therefore, no internal conflicts would occur. The 2007 General Plan Land Use Element and Area Plans would form the basis for preparing the plans for the Community Areas and Rural Centers. As a result, one can reasonably assume that those future land use plans will be consistent with one another and with the General Plan. In addition, the 2007 General Plan is written to be consistent with local land use plans, the County LCP, LAFCO policies, and the County Growth Management Policy.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

### **Significance Conclusion**

Implementation of the 2007 General Plan policies would avoid impacts related to consistency with adopted land use plans, LCPs, LAFCO policies and the Growth Management Policy and no mitigation is necessary.

### **Buildout**

#### **Impact of Development with Policies**

Monterey County's 2007 General Plan is drafted to be consistent with adopted local land use plans, the LCPs, and zoning ordinances within the county through 2092. Buildout of the 2007 General Plan to 2092 would result in new development in many areas of the County beyond 2030 levels. In addition, implementation of the 2007 General Plan in the buildout year 2092 would result in changes to land use designations in several areas of the County.

The Community Areas and Rural Centers are expected to absorb most of the future development within the unincorporated county up to the 2030 planning horizon. After that time, the Community Areas and Rural Centers will be largely built out and development will shift to individual lots.

Each incorporated city within the County has an adopted land use plan for its area. These plans include each city's vision for growth that may include expansion of the city's boundaries to the 2092 buildout year. To address this, the 2007 General Plan has considered ultimate buildout within each city's general plan relative to the County's policies.

### 2007 General Plan Policies

Implementation of the 2007 General Plan policies listed above under the 2030 Planning Horizon would ensure consistency with adopted local land use plans and reduce inevitable inconsistencies with such plans through 2092.

### **Significance Determination**

The 2007 General Plan includes comprehensive measures to avoid conflicts with adopted land use plans, County LCP, LAFCO policies and zoning ordinances through buildout in the year 2092. As discussed above, the goals and policies of the 2007 General Plan Land Use Element and those of the Area Plans are internally consistent.

The County is relying upon the Community Areas and Rural Centers to provide a substantial portion of the future affordable housing that will be required in order to meet its housing needs allocation. In general, development on individual lots tends not to be affordable to very low-income, low-income, and moderate-income market segments. The Community Areas and Rural Centers will provide higher density that would lend itself to affordable housing production. As time passes and development fills the current Community Areas and Rural Centers, Housing Element Law will require the County to provide new places where affordable housing can be built. It is reasonable to assume that in order to meet future housing need allocations the County will amend the general plan to either expand the current Community Areas and Rural Centers or establish new Community Areas and Rural Centers. This would allow the County to remain consistent with its policy of city-centered development.

Impacts related to inconsistency of the 2007 General Plan Land Use Element with Area Plans would be less than significant. Any impacts related to inconsistency of the 2007 General Plan with the LCP, LAFCO policies or the Growth Management Policy would be less than significant.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

### **Significance Conclusion**

Implementation of the 2007 General Plan policies at buildout in the year 2092 would reduce impacts related to consistency with adopted land use plans to a less than significant level and no mitigation is necessary. In addition, any impacts related to inconsistency of the 2007 General Plan with the LCP, LAFCO policies or the Growth Management Policy would be less than significant.

## **Conflict with an Adopted Habitat Conservation Plan**

**Impact LU-3: General Plan implementation would potentially conflict with an existing adopted habitat conservation or a natural community conservation plan. (Less-than-Significant Impact.)**

### **2030 Planning Horizon**

#### **Impact of Development with Policies**

HCPs and NCCPs are increasingly being used by resource agencies in California as a tool to conserve species and natural communities. The USFWS indicates that there are several HCPs approved in Monterey County for individual projects (U.S. Fish and Wildlife Service 2008). These include the Post Ranch Inn HCP in Big Sur (approved 2006), the Sarment Property HCP in Carmel Highlands (approved 2007), and the Wildcat Line LP HCP in Carmel Highlands (approved 2001). All of these are located in the coastal zone and would not be affected by the 2007 General Plan. Further, the Fort Ord Habitat Management Plan (HMP) has been adopted to coordinate protections of special status species. The HMP is discussed below.

#### **Fort Ord Base Closure Plan HMP**

The former Fort Ord military installation spans nearly 28,000 acres near the cities of Seaside, Sand City, Monterey, Del Rey Oaks and Marina in Monterey County, California. Fort Ord was established in 1917 as a training for infantry troops. It was expanded for use as a maneuver and training ground for field artillery and cavalry troops stationed at the Presidio of Monterey.

In 1991, the federal Defense Base Realignment and Closure Commission recommended that Fort Ord be closed, and the base was closed in September 1994. Closure, disposal and reuse of Fort Ord required consultation between the U.S. Army and the USFWS under Section 7 of the ESA. The U.S. Army's actions potentially affected several species listed as threatened or endangered or proposed for listing under the ESA. Hence, the Army developed a HMP to minimize incidental take of listed species and their habitat, and to mitigate impacts to vegetation and wildlife resources within Fort Ord. The Army developed the HMP with input from Federal, State, and local agencies and organizations concerned with the natural resources and reuse of Fort Ord. The USFWS, the Bureau of Land Management (BLM), DFG, the California Department of Parks and Recreation (State Parks), the University of California (UC), the FORA and other members of the local Monterey Bay area community were active participants in the development of the HMP. The HMP describes a cooperative Federal, State, and local conservation program for plant and animal species and habitats of concern known to occur at Fort Ord. The HMP's conservation program establishes land use categories and habitat management requirements for

all lands on the former base. Developable lands and habitats reserve areas are defined along with habitat corridors and restricted development areas. Resources conservation and management requirements are described and responsible parties for each designated habitat area on the former base are identified. (69 Federal Register [FR] 58181.) This is not, however, a formal HCP.

An installation-wide Multispecies HCP is under development for the former Fort Ord. About 3,968 acres of the former base were originally developed for military facilities with approximately 23,718 acres left as relatively natural habitat used for military training and other purposes. The multispecies HCP is being developed to provide the framework for ensuring conservation, enhancement and recovery of 19 special status plant and wildlife species and the natural communities that support them on former Fort Ord.

There are no NCCPs in Monterey County.

### 2007 General Plan Policies

The 2007 General Plan Land Use Element and Open Space and Conservation Element establish numerous policies that are intended to ensure consistency with adopted or proposed HCP/NCCPs.

#### ***Land Use Element***

The 2007 General Plan Land Use Element does not address the detailed requirements of a specific HCP or NCCP. However, the County's intent is not to alter existing regional, State or Federal laws or regulations, but rather to enable greater cooperation among public agencies and the public to share management responsibilities in accomplishing a shared goal of conserving and protecting the resources of the region (Monterey County 2007). The 2007 General Plan would not interfere with establishment of new HCPs, nor with implementation of the existing adopted HCPs.

#### ***Open Space and Conservation Element***

The Conservation and Open Space Element of the 2007 General Plan guides the County in the long-term conservation and preservation of open space lands and natural resources while protecting private property rights.

Open Space and Conservation Element Policy OS-1.7 (transfer of development rights) establishes a voluntary, transfer of development rights (TDR) program to direct development away from areas with unique visual or natural features, critical habitat, or prime agricultural soils. This 2007 General Plan policy would not conflict with an existing or proposed HCP/NCCP within the County.



Open Space and Conservation Element Policy OS-1.8 (clustering) calls for programs to encourage clustering development in rural and agricultural areas to reduce impacts to critical habitat areas, and would assist with implementation of the requirements of an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-4.1 (species protection) states that Federal and State designated native marine and fresh water species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant shall be protected. Species designated in Area Plans shall also be protected. This policy would not conflict with an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-5.1 and 5.2 (species inventory) states that the extent and acreages of the designated critical habitat of Federal and State listed threatened or endangered plants or wildlife species shall be inventoried to the extent feasible and mapped in GIS. Conservation of these threatened and endangered plants shall be promoted. In addition, the extent and acreages of the potentially suitable habitat for special status plant and wildlife species shall be inventoried to the extent feasible and mapped in GIS. Conservation of special status species shall be promoted as provided in the Area Plans. This policy would in turn assist with implementation of the requirements of an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-5.3 (conservation/maintenance) states that development shall be carefully planned to provide for the conservation and maintenance of designated critical habitat of plant and animal species listed by federal agencies as threatened or endangered. This policy would assist with implementation of the requirements of an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-5.12 (DFG Consultation) states that the CDFG shall be consulted and appropriate measures shall be taken to protect Areas of Special Biological Significance (ASBS) for State and federally listed species. This policy would assist with implementation of the requirements of an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-5.13 (preservation) states that efforts to obtain and preserve natural areas of particular biologic, scientific, or educational interest and restrict incompatible uses from encroaching upon them shall be encouraged. This policy is compatible with implementation an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-5.16 (biological surveys) requires any development project that could potentially disturb a special status species or its critical habitat identified by the County requiring analysis, or identified for protection under an adopted Area Plan shall be required to conduct a biological survey of the site. Based on the findings of this report, additional focused surveys for certain species may be required. This biological survey report, and any mitigation measures recommended in the report, shall be used as a basis for CEQA documentation for the project except if the County, in the exercise of its independent judgment, requires additional analysis. If sensitive biological resources are found on the site, the project biologist shall recommend measures necessary to reduce impacts to a less than significant level. All feasible measures shall be incorporated as conditions of approval in any permit issued. An ordinance establishing minimum standards for a biological report shall be enacted. This policy would not conflict with implementation of the requirements of an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-5.17 (mitigation program) requires the county to prepare, adopt, and implement a program that allows projects to mitigate the loss of critical habitat. The program may include ratios, payment of fees, or some other mechanisms in consultation with responsible state and/or federal regulatory agencies. Until such time as the program has been established, projects shall mitigate the loss of critical habitat on an individual basis in consultation with responsible state and/or federal regulatory agencies. This policy would assist with implementation of the requirements of an existing or proposed HCP/NCCP within the County.

Open Space and Conservation Element Policy OS-5.18 (permitting requirements) requires that all applicable federal and state permitting requirements shall be met, including all mitigation measures for development of jurisdictional areas and associated riparian habitats, prior to disturbing any federal or state jurisdictional areas. Therefore, this policy would assist with implementation of the requirements of an existing or proposed HCP/NCCP within the County.

#### Area Plan Policies

##### *North County Area Plan*

North County Area Plan Policy NC-3.3 requires the conservation of North County's native vegetation. Conservation of North County's native vegetation shall be given high priority to retain the viability of threatened or limited vegetative communities and animal habitats. In addition, the area's natural scenic qualities shall be promoted, and

rare, endangered and endemic plants shall be preserved for scientific study. Property owners shall be encouraged to cooperate with the County in establishing conservation easements over areas of native vegetation. This policy would in turn assist with implementation of the requirements of an existing or proposed HCP/NCCP within the North County area.

North County Area Plan Policy NC-3.5 states that critical habitat areas should be preserved as open space. In turn, when an entire parcel cannot be developed due to this policy, a low intensity, clustered development may be approved. However, the development should be located on those portions of the land least biologically significant so that the development will not upset the natural function of the surrounding ecosystem. This policy would assist with implementation of the requirements of an existing or proposed HCP/NCCP within the North County area.

#### ***Greater Salinas Area Plan***

There are no additional policies within the Greater Salinas Area Plan that specifically pertain to HCPs or NCCPs. However, there are no adopted HCPs or NCCPs within the Greater Salinas area at this time.

#### ***Central Salinas Valley Area Plan***

There are no additional policies within the Central Salinas Valley Area Plan that specifically pertain to HCPs or NCCPs. However, there are no adopted HCPs or NCCPs within the Central Salinas Valley area at this time.

#### ***Greater Monterey Peninsula Area Plan***

Greater Monterey Peninsula Area Plan policy GMP-3.5 states that development in the Greater Monterey Peninsula area shall be designed to prevent, to the maximum extent feasible, the destruction of native oak, pine, and redwood forest habitat and wetlands in the Greater Monterey Peninsula Area Plan area.

Greater Monterey Peninsula Area Plan Policy GMP-3.8 and GMP-3.9 (open space) calls for open space areas to include a diversity of habitats with special protection given to ecologically important zones such as areas where one habitat grades into another, or areas used by wildlife for access routes to water or feeding grounds. In addition, critical habitat areas should be preserved as open space. Development should be located on those portions of the land least biologically significant so that the development will not upset the natural function of the surrounding ecosystem. These policies would in turn assist with implementation of the requirements

of an existing or proposed HCP/NCCP within the Greater Monterey Peninsula area.

### ***Carmel Valley Master Plan***

Carmel Valley Master Plan Policy CV-3.7 (open space preservation) calls for areas of biological significance to be identified and preserved as open space. These areas include, but are not limited to the redwood community of Robinson Canyon, the riparian community and redwood community of Garzas Creek, all wetlands, including marshes, seeps and springs. In addition, native bunchgrass stands and natural meadows shall be identified and preserved, as well as ridgelines and wildlife migration routes.

Carmel Valley Master Plan Policy CV-3.12 (habitat diversity) necessitates that open space areas include a diversity of habitats with special protection given to areas where one habitat grades into another and areas used by wildlife for access routes.

Carmel Valley Master Plan Policy CV-3.15 (development rights/easements) supports alliances between public and private agencies such as the Big Sur Land Trust, the Monterey Regional Park District and others to acquire development rights and/or accept easements and dedications for significant areas of biological, agricultural or other open space land. Combined, these policies would in turn assist with implementation of the requirements of an existing or proposed HCP/NCCP within the Carmel Valley area.

### ***Toro Area Plan***

There are no policies within the Toro Area Plan that specifically pertain to HCPs or NCCPs. In addition, there are no adopted HCPs or NCCPs within the Toro area at this time.

### ***South County Area Plan***

There are no policies within the South County Area Plan that specifically pertain to HCPs or NCCPs. In addition, there are no known adopted HCPs or NCCPs within the South County area at this time.

## **Community Area Policies**

### ***Fort Ord Master Plan***

The 1997 Fort Ord Installation-wide Multi-species Habitat Management Plan (Fort Ord HMP) outlines management requirements for lands on the former Fort Ord. The HMP identifies four general categories of parcel-specific land uses: habitat reserve,

habitat corridor, development with reserve areas and restrictions, and development with no restrictions. These four land uses are thoroughly incorporated into the Fort Ord Master Plan. For example, one of the Fort Ord Master Plan Design Objectives establishes site planning and design criteria that provide buffers and addresses compatibility with adjacent open space areas in conformance with the adopted Fort Ord HMP. Program B-2.5 stipulates that buffers are required as a condition of approval adjacent to Habitat Management areas, and that buffers shall be designed in a manner consistent with those guidelines set out in the Fort Ord HMP. Since the requirements of the Fort Ord HMP are thoroughly integrated into the Fort Ord Master Plan, it is not anticipated that implementation of the Fort Ord Master Plan would significantly conflict with the implementation of the Fort Ord HMP.

#### ***Agricultural Winery Corridor Plan***

No adopted HCP or NCCP exists within the AWCP boundaries. This condition precludes the possibility of the AWCP conflicting with an adopted conservation plan; therefore, no impact would occur.

#### **Significance Determination**

Implementation of the 2007 General Plan would not introduce any new policies that would conflict with an existing adopted HCP or NCCP within the County. None of the planned Community Areas, Rural Centers, or AHOs would overlap with HCPs. Development on lots of record would be required to comply with any applicable future HCPs in order to meet federal law. In addition, implementation of the 2007 General Plan would not conflict with existing land use designations or policies within the Fort Ord HMP boundaries. The prospective multi-species HCP will set out parameters for development and conservation. As a signatory to the HCP, the County would amend any portion of the Fort Ord Master Plan that might conflict with the HCP. Accordingly, implementation of the 2007 General Plan would not result in significant conflicts with an existing HCP or NCCP and associated impacts would be less than significant.

#### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

#### **Significance Conclusion**

Implementation of the 2007 General Plan policies would not conflict with an adopted HCP in the County. The impact 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 development in many areas of the County beyond 2030 levels. In addition, implementation of the 2007 General Plan in the year 2092 would inevitably result in changes to land use designations in several areas of the County, including Community Areas and Rural Centers in order to meet future housing needs pursuant to Housing Element Law, as discussed above.

### **2007 General Plan Policies**

Implementation of the 2007 General Plan policies listed above would ensure consistency with adopted HCPs and NCCPs and would reduce inconsistencies with such plans through the year 2092.

### **Significance Determination**

Implementation of the 2007 General Plan would be consistent with adopted HCPs and NCCPs in the County through the year 2092. Prospective HCPs and NCCPs developed and adopted after the adoption of the 2007 General Plan would take into account current and future development patterns in the County. Further, they would be adopted under federal and state law, outside of County land use regulations. Therefore, while nothing is known about prospective HCPs and NCCPs (other than Fort Ord), the potential for a significant effect on prospective HCPs or NCCPs at ultimate buildout is low for these reasons. Therefore, implementation of the 2007 General Plan would have a less than significant impact on existing and future HCPs or NCCPs through 2092, and no mitigation is required.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

### **Significance Conclusion**

Implementation of the 2007 General Plan would have a less than significant impact on future HCPs or NCCPs through buildout in the year 2092, and no mitigation is required.

## **4.1.5 Level of Significance after Mitigation**

All impacts related to land use would be less than significant with implementation of the measures in the 2007 General Plan, and no additional mitigation would be required.

## 4.2 Agriculture Resources

### 4.2.1 Abstract

Monterey County contains some of the most productive farmland in the United States. The county's agricultural economy (\$3.49 billion in 2006) is the third largest in California. As of 2006, there were more than 1.3 million acres of agricultural lands in the county, representing more than 60% of the total land area: 236,142 acres are identified as Important Farmland (See Exhibit 4.2.1) and 1,065,577 acres are identified as grazing land by the California Department of Conservation (Department of Conservation 2006). As of 2007, approximately 763,396 acres of Monterey County farmlands are protected under Williamson Act, Farmland Security Zone, or other enforceable restrictions. During the past two decades, the total acreage of land in agricultural use in Monterey County has remained relatively constant with only nominal change.

Development and land use activities contemplated by the 2007 General Plan would result in the following significant impacts on agriculture resources:

- **Loss of Important Farmland**—Implementation of the 2007 General Plan would result in the conversion of approximately 2,571 acres of Important Farmland to non-agricultural use. No mitigation is available to reduce this impact to a less-than-significant level. It should be noted that from 1984 to 2006, while there was conversion of important farmland to urban use, there was a net increase in important farmland due to the conversion of grazing land or natural land to important farmland; a similar phenomena is expected to occur in the future.
- **Conversion of Agricultural Land to Non-Agricultural Uses**—Because it provides for additional residential development as required under State Planning Law, implementation of the 2007 General Plan would create development pressures that would result in the conversion of agricultural lands to non-agricultural uses. Such pressures also primarily stem from future growth within the Salinas Valley's incorporated cities. No mitigation is available to reduce this impact to a less-than-significant level. As noted above, it is expected that new farmland will be created over the lifetime of the General Plan similar to past trends.

### 4.2.2 Introduction

This section identifies and evaluates issues related to agricultural 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.

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.

## **4.2.3 Environmental Setting**

### **4.2.3.1 Overview and History**

Monterey County contains some of the most productive farmland in the United States. The Salinas Valley accounts for nearly all of the agricultural production in Monterey County and is known as the “Salad Bowl of the World” because of its voluminous production of vegetable crops.

The Salinas Valley is 10 to 20 miles wide by (150 miles long). The Salinas River, the third longest in the state, winds through the valley, and its aquifer is the main source of water for agriculture. The Salinas Valley is framed by mountain ranges on the east and west and runs the length of the county. Salinas, the largest city in the County, is located in the Salinas Valley, as are the smaller cities of Gonzales, Greenfield, King City, and Soledad. The north end of the Salinas Valley opens to the Pacific Ocean, which is the source of the marine influence that cools the valley, creating ideal conditions for a wide range of crops. The unique geography of the Salinas Valley allows for the production of cool-season vegetable crops due to the marine influence that produces abundant summer fog. The marine influence diminishes with distance from the ocean, producing a gradient of climate that allows the production of a wide range of crops.

Monterey County agriculture is notable for its diversity of crops, many of which are grown year-round. Approximately 45 commodities in the county have a gross value of more than \$1 million each. The highest percentage of farmland acreage is devoted to cool-season vegetables, including lettuce, broccoli, spinach, cauliflower, artichokes, and celery. In the southern half of the county, farmers grow warm-season vegetables, including carrots, peppers, potatoes, and tomatoes. The cool-season crops listed above are also grown at certain times in the south part of the county. Monterey County is also home to a sizable wine grape industry and produces more than a quarter of the state’s annual strawberry yield.



### 4.2.3.2 Agricultural Economy

The *California Agricultural Resource Directory 2007* indicates that Monterey County’s agricultural economy of \$3.49 billion is the third largest in the state (California Department of Food and Agriculture 2007). Agriculture accounts for more than 25% of countywide employment during peak seasons. The agriculture sector and related food processing activities together constitute important export activities that bring money into Monterey County. Table 4.2-1 summarizes the overall contribution of the Monterey County agricultural economy between 1994 and 2007.

**Table 4.2-1.** Monterey County Agricultural Economy (1994–2007)

Year	Agricultural Economy (billions of dollars)	Rank in State
2006	\$3.49	3
2004	\$3.39	3
2003	\$3.29	3
2002	\$2.83	3
2001	\$2.75	3
2000	\$2.92	3
1999	\$2.37	3
1998	\$2.30	3
1997	\$2.27	3
1996	\$1.93	4
1995	\$2.01	3
1994	\$1.93	4

Sources: United States Department of Agriculture. *Summary of County Agricultural Commissioner’s Reports 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, and 2004.*

California Department of Food and Agriculture. *California Agricultural Resource Directory 2007.* Sacramento, CA. 2007.

Table 4.2-2 summarizes the top 10 agricultural commodities produced in Monterey County by dollar value in 2006. As the table illustrates, the growth of diversity in crops in Monterey County over the years has ensured that agriculture remains the leading economic activity for the region.

In terms of dollar value, Monterey County is the state’s leading producer of lettuce, broccoli, miscellaneous salad greens, spinach, cauliflower, mushrooms, cabbage, and artichokes. Table 4.2-3 summarizes Monterey County’s statewide ranking for the production of top agricultural commodities in 2006. In addition, Table 4.2-3 illustrates the importance of Monterey County’s agri-business to California, with 15 of its crops in the state’s top three in terms of production.

**Table 4.2-2.** Leading Monterey County Agricultural Commodities (2006)

Rank	Commodity	Dollar Value (millions of dollars)
1	Lettuce, leaf	\$630
2	Lettuce, head	\$444
3	Strawberries	\$440
4	Nursery	\$339
5	Broccoli	\$234
6	Grapes	\$218
7	Spring Mix	\$170
8	Salad Products	\$122
9	Miscellaneous Vegetables	\$116
10	Spinach	\$109

Source: Monterey County Agricultural Commissioner. *Monterey County Crop Report 2006*. Salinas, CA. 2007.

**Table 4.2-3.** Selected Monterey County Agricultural Crop Production (2006)

Crop	Monterey County Rank in State	Percent of State Production (%)
Artichokes	1	83.3
Spinach	1	59.6
Lettuce	1	65.6
Cauliflower	1	54.9
Cabbage	1	36.1
Broccoli	1	43.0
Mushrooms	1	44.1
Strawberries	1	32.8
Misc Salad Greens	1	92.2
Celery	2	33.6
Asparagus	2	20.4
Nursery products	2	8.7
Carrots	2	3.2

Source: California Department of Food and Agriculture. *California Agricultural Resource Directory 2007*. Sacramento, CA. 2007

Table 4.2-4 illustrates the changes in the county's most popular crops. Although some select agricultural crops have decreased in production numbers, overall agricultural production has increased substantially in the region over the past 20 years. Changes in production of a given crop generally reflect market forces, as farmers seek to maximize profits, but do not indicate whether particular land is

no longer being devoted to agriculture. Farmers change the type of crop grown on a particular piece of agricultural land from year to year and season to season, depending upon their anticipation of production costs, market demands, and prices. The 2006 data is assumed to represent existing conditions for purposes of this EIR.

**Table 4.2-4. Agricultural Commodity Trends**

Crop	Acreage			
	1985	1995	2005	2006
Artichokes	9,189	6,344	6,081	7,242
Broccoli	54,805	61,447	38,863	38,215
Cauliflower	22,415	23,569	16,380	15,195
Celery	5,410	7,445	10,138	8,491
Grapes	28,647	30,483	38,179	38,165
Lettuce	133,017	105,592	149,615	169,263
Nursery products	967	1,575	1,123	1,220
Spinach	3,046	8,700	16,937	7,638
Strawberries	3,500	7,022	8,820	9,295

Sources: Monterey County Agricultural Commissioner’s Office. *Monterey County 2005 Crop Report*. 2006.

Monterey County Agricultural Commissioner. *Monterey County Crop Report 2006*. 2007.

### 4.2.3.3 Agricultural Land Use

The conservation of quality agricultural lands has sustained the economic feasibility of agriculture in Monterey County. Table 4.2-5 summarizes the various types of farmland in Monterey County, as inventoried by the California Department of Conservation’s Farmland Mapping and Monitoring Program (refer to Section 4.2.2, Regulatory Framework, for further category definitions and discussion of this program). “Important Farmland” consists of “Prime Farmland,” “Farmland of Statewide Importance,” and “Unique Farmland.”

**Table 4.2-5. Agricultural Land Use Summary**

Land Use Category	Acres			Percent Change 1984–2006 (%)
	1984	1994	2006	
Prime Farmland	176,779	174,681	167,636	-5.2
Farmland of Statewide Importance	37,762	37,961	43,402	+14.9
Unique Farmland	10,875	13,074	25,104	+131.0
<b>Important Farmland subtotal</b>	<b>225,416</b>	<b>225,716</b>	<b>236,142</b>	<b>+4.6</b>
Grazing Land	1,081,510	1,080,452	1,065,577	-1.5
<b>Agricultural Land subtotal</b>	<b>1,306,926</b>	<b>1,306,168</b>	<b>1,301,719</b>	<b>-0.04</b>
Urban Land	42,374	47,112	55,951	+32.0
Other	765,284	761,302	757,210	-1.1
Water	6,544	6,545	6,246	-4.6
<b>Total Land</b>	<b>2,121,128</b>	<b>2,121,128</b>	<b>2,121,128</b>	

Sources: California Department of Conservation. Farmland Mapping and Monitoring Program. *Monterey County Historic Land Use Conversion. 1982 to Present*. Accessed: [http://redirect.conservation.ca.gov/DLRP/fmmp/pubs/1984-Present/mnt\\_1984-Present.xls](http://redirect.conservation.ca.gov/DLRP/fmmp/pubs/1984-Present/mnt_1984-Present.xls).

California Department of Conservation. Farmland Mapping and Monitoring Program. *Monterey County Important Farmland Data Availability. Land Use Conversion Table 2004–2006*. This table is available online through the Farmland Mapping and Monitoring Program: [http://redirect.conservation.ca.gov/DLRP/fmmp/county\\_info\\_results.asp](http://redirect.conservation.ca.gov/DLRP/fmmp/county_info_results.asp).

As a percentage of total land in Monterey County, agricultural uses have held constant at more than 61% for the past 20 years. While several thousand acres of agricultural land were converted to urban uses during that period, land continues to be brought into production, and, as of 2006, urban uses represent less than 3% of total land use in Monterey County. Table 4.2-6 summarizes land use as a percentage of the total area of Monterey County.

**Table 4.2-6. Land Use as a Percentage of Monterey County Area**

Land Use	1984	1994	2006
Important Farmland	10.6	10.6	11.1
Grazing Land	51.0	50.9	50.2
<b>Agricultural Land total</b>	<b>61.6</b>	<b>61.5</b>	<b>61.3</b>
Urban Land	2.0	2.2	2.6

Source: California Department of Conservation. Farmland Mapping and Monitoring Program. *Monterey County Important Farmland Data Availability. 1984-2006 Land Use Summary*. Accessed: [http://redirect.conservation.ca.gov/DLRP/fmmp/pubs/1984-Present/mnt\\_1984-Present.xls](http://redirect.conservation.ca.gov/DLRP/fmmp/pubs/1984-Present/mnt_1984-Present.xls).

## Loss of Important Farmland

An issue of concern in Monterey County is the conversion of agricultural land to urban uses. Table 4.2-7 summarizes the acreage of agricultural land that has been converted to urban uses between 1992 and 2006. However, as was noted earlier, the percent of land in Monterey County in agricultural use has remained constant, at approximately 61% over the past 20 years because other lands have been brought into agricultural use, even as others have been converted to urban uses.

**Table 4.2-7. Agricultural Land Converted to Urban Uses (1992–2006)**

Agricultural Land Use	Acres Converted to Urban Uses							Total
	1992– 1994	1994– 1996	1996– 1998	1998– 2000	2000– 2002	2002– 2004	2004– 2006	
Prime Farmland	255	948	1,176	737	335	123	211	3,785
Farmland of Statewide Importance	26	261	126	47	36	11	26	533
Unique Farmland	2	30	48	12	20	21	18	151
<b>Important Farmland subtotal</b>	<b>283</b>	<b>1,239</b>	<b>1,350</b>	<b>790</b>	<b>391</b>	<b>155</b>	<b>151</b>	<b>4,463</b>
Grazing Land	63	162	519	919	213	0	277	2,153
<b>Agricultural Land total</b>	<b>346</b>	<b>1,401</b>	<b>1,869</b>	<b>1,709</b>	<b>604</b>	<b>155</b>	<b>412</b>	<b>6,616</b>

Source: California Department of Conservation. Farmland Mapping and Monitoring Program. *Monterey County Important Farmland Data Availability. Land Use Conversion Tables: 1992–1994, 1994–1996, 1996–1998, 1998–2000, 2000–2002, and 2002–2004, 2004–2006.* These seven tables are available online through the Farmland Mapping and Monitoring Program: [http://redirect.conservation.ca.gov/DLRP/fmmp/county\\_info\\_results.asp](http://redirect.conservation.ca.gov/DLRP/fmmp/county_info_results.asp).

A net total of 6,616 acres of agricultural land was converted to urban uses between 1992 and 2006. Of this figure, 4,463 acres (67.5%) was classified as Important Farmland. This equates to an average loss of approximately 319 acres of Important Farmland per year. The percent of lands in agricultural use, as shown in Table 4.2-6, has remained constant at more than 61%.

## 4.2.4 Regulatory Framework

### 4.2.4.1 Federal and State

#### Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to track changes in agricultural land uses over time. It continues the farmland mapping efforts initiated in 1975 by the Soil Conservation Service

(since renamed Natural Resources Conservation Service [NRCS]) of the U.S. Department of Agriculture. The Important Farmland Maps produced under the FMMP identify five farmland categories: Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land. Each of these categories is summarized below, as excerpted from *A Guide to the Farmland Mapping and Monitoring Program* (1994), prepared by the California Department of Conservation.

- **Prime Farmland**—Land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields.
- **Unique Farmland**—Land of less quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards, as found in some climactic zones in California.
- **Farmland of Statewide Importance**—Land similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.
- **Farmland of Local Importance**—Land of importance in the local agricultural economy, as determined by each county’s Board of Supervisors and a local advisory committee. Monterey County does not have any land designated as Farmland of Local Importance.
- **Grazing Land**—Areas covered by vegetation, both natural and cultivated, that are suited to the grazing of livestock.

## Williamson Act

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965. This voluntary tax incentive program allows the owners of land within established agricultural preserves who agree to maintain their land in agricultural use to have their property assessed based on its agricultural production, rather than the current market value. The property owner is thus relieved of having to pay higher property taxes as long as the land remains in agricultural production. The purpose of the Williamson Act is to encourage participating property owners to continue to farm their land, and to prevent the premature conversion of farmland to urban uses.

The Williamson Act applies to both prime and non-prime agricultural lands. As a result, agricultural uses on contracted lands range from intensive agriculture to grazing. Lands under contract may also support uses that are “compatible with the agricultural, recreational, or open-space use of the land” subject to the contract (Government Code Section 51201[e]). Monterey has identified the following “compatible uses”:

- Drying, packing, or other processing of an agricultural commodity usually performed on the premises where it is produced.

- Structures necessary and incidental to the agricultural use of the land.
- Single-family dwellings incidental to the agricultural use of the land for the residence of the owner and family of the owner or lessee of the land.
- Dwellings for persons employed by the owner or lessee (and their families) incidental to the agricultural use of the land.
- An aircraft landing strip incidental to the agricultural use of the land.
- Erection, constriction, alteration, or maintenance of gas, electric, water or communication utility facilities.
- Erection, constriction, alteration, or maintenance of radio, television or microwave antennae, transmitters, and related facilities.
- Public or private hunting clubs and accessory structures.
- Public or private hunting of wildlife or fishing.
- Public or private shooting range, archery range, or other similar use.
- Public or private riding or hiking trails.
- Removal of natural materials.
- Disposal of specified oil field wastes, when in accordance with all required local and state permits.

When a land owner enters into a Williamson Act contract with the County, the land is restricted to agricultural and compatible uses for at least 10 years. Williamson Act contracts are automatically renewed annually for an additional one-year period, unless the property owner applies for non-renewal. The Williamson Act also contains limited provisions for cancellation of contracts by the Board of Supervisors and a substantial penalty for the cancellation is assessed. Non-renewal is the preferred method of ending a contract; cancellation is intended only for unusual situations (*Sierra Club v. City of Hayward* [1981] 28 Cal.3d 840). The specific findings to justify cancellation are extremely difficult to make, and contracts are rarely cancelled in Monterey County.

Alternatively, under the Williamson Act, a landowner may enter into a contract with the County placing their land within a Farmland Security Zone. The Farmland Security Zone offers a greater property tax reduction in exchange for agreeing to a longer minimum term on the contract (20 years, rather than the 10 years otherwise provided under the Williamson Act). If an existing Williamson Act contract is being converted to a Farmland Security Zone, the Board of Supervisors will rescind the existing contract upon approving the Zone. Non-renewal or cancellation procedures for Farmland Security Zone contracts are similar to those for the Williamson Act; however, cancellation is also subject to approval by the Director of the California Department of Conservation.

In 2007, 763,396 acres of land in Monterey County were under Williamson Act contract, with an additional 31,278 acres under the more restrictive Farmland Security Zone (Department of Conservation 2008c). The 763,396 acres under these enforceable restrictions represent an 11% increase over the 1991 total.

Table 4.2-8 summarizes the change in Williamson Act acreage between 1991 and 2007.

**Table 4.2-8.** Change in Williamson Act Contract Acreage (1991–2007)

Acres of Land under Williamson Act Contract		Change (acres) (Percent Change [%])
1991	2007	
686,466	763,396	+76,930 (+11%)

Department of Conservation. 2008c. Williamson Act Program Reports and Statistics. Enrollment Summaries and Trends. County information available online at: [http://www.conservation.ca.gov/dlrp/lca/stats\\_reports/Pages/index.aspx](http://www.conservation.ca.gov/dlrp/lca/stats_reports/Pages/index.aspx)

Exhibit 4.2.2 depicts the locations of parcels in Monterey County with active Williamson Act contracts, as of 2004, which is the latest year for which geographic information systems (GIS) data is available showing the location of Williamson Act contracts.

## 4.2.5 Project Impacts

This section describes the CEQA impact analysis relating to agricultural 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. Measures to mitigate (avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

### 4.2.5.1 Methodology

Using the criteria for determining significance described below, analysis of the agricultural effects of the project are based on the location and designation of the farmland in the county. Important Farmland as well as land zoned for farming and land under Williamson contract were specifically analyzed. Additionally, the location of other development in relation to farmland in the county was also used to analyze impacts. A qualitative analysis is provided to determine whether the development and land use activities contemplated by the 2007 General Plan would create substantial impact on farmland in the county.



## 4.2.5.2 Thresholds of Significance

### Thresholds of Significance under CEQA

The State CEQA Guidelines were used to determine whether the proposed action would have a significant environmental effect. The proposed action may have a significant effect on visual resources under CEQA if it would:

- convert Prime, Unique, or Farmland of Statewide Importance (collectively Important Farmland) to non-agricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- involve other changes in the existing environment, which, due to their location or nature, would result in conversion of farmland to non-agricultural use.

## 4.2.5.3 Impact Analysis

Implementation of the 2007 General Plan to the 2030 and 2092 planning horizons could result in impacts to Important Farmland, land zoned for farming, land under Williamson Act/Farmland Security Zone contract and other existing farmland.

### Loss of Important Farmland

**Impact AG-1: Implementation of the 2007 General Plan would result in the conversion of Important Farmland to non-agricultural use. (Significant Unavoidable Impact.)**

#### 2030 Planning Horizon

##### Impact of Development with Policies

Implementation of the 2007 General Plan would result in a net loss of Important Farmland within the county. As of 2006, there were approximately 236,142 acres of Important Farmland in Monterey County, as mapped by the California Department of Conservation. Of this acreage, 233,571 acres are in an agricultural (e.g., Farmland) or agricultural supporting (Agricultural Industrial) land use designation of the 2007 General Plan. The remaining 2,571 acres are contemplated to be converted to urban uses by the 2007 General Plan. Note that this figure includes approximately 476 acres of Important Farmland that are within the Sphere of Influence of the cities. Table 4.2-9 summarizes the net loss of Important Farmland that would occur from implementation of the General Plan. It is expected that most of the conversion of Important Farmland in the unincorporated county

would occur in the Boronda, Castroville, Chualar, and Pajaro Community Areas.

The exact amount of conversion that would occur by 2030 was not estimated. Table 4.2-9 shows the total amount of conversion that would occur through buildout. Conversion by 2030 would be somewhat less than this total.

**Table 4.2-9.** Change in Net Important Farmland Acreage

Existing Important Farmland (2006)	Important Farmland within a Proposed Agricultural Land Use Designation	Important Farmland Removed from Agricultural Land Use Designation
236,142 acres	233,571 acres	2,571 acres

Sources: California Department of Conservation. Farmland Mapping and Monitoring Program. Monterey County Important Farmland Data Availability. *Land Use Conversion Table 2004–2006*. This table is available online through the Farmland Mapping and Monitoring Program: [http://redirect.conservation.ca.gov/DLRP/fmmp/county\\_info\\_results.asp](http://redirect.conservation.ca.gov/DLRP/fmmp/county_info_results.asp).  
County of Monterey. *2007 General Plan*. 2007.

While the loss of 2,571 acres of Important Farmland would represent only about one percent of the total Important Farmland acreage in Monterey County, this is considered significant because the land would be permanently removed from agricultural production.

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 conversion of Important Farmland to non-agricultural uses to the maximum extent practicable.

***Land Use Element***

Land Use Element Policies LU-1.1 through LU-1.5 and LU-1.7 through LU-1.9 promote general land use concepts that emphasize city-centered growth and discourage conversion of prime agricultural lands to urban uses. 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-1.7 (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), and LU-1.9 (prioritizes infill of vacant non-agricultural lands in existing developed areas and new development within designated urban service areas) 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 much of the agricultural land in the county occurs in unincorporated areas, these policies serve to limit development in agricultural areas and conserve prime agricultural lands thereby reducing the potential for impacts of their conversion to non-agricultural uses.

### *Agricultural Element*

Agricultural Element Policies AG-1.1 through AG-1.12 establish land use guidelines designed to preserve existing agricultural operations, particularly those located on Important Farmland. 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 of agricultural areas from conversion to non-agricultural uses.

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.

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.

#### Area Plan Policies

Supplemental policies in the North County (Inland) Area Plan, Greater Salinas Area Plan, Central Salinas Valley Area Plan, Carmel Valley Master Plan, Toro Area Plan, Cachagua Area Plan, and South County

Area Plan are designed to preserve existing agricultural land uses and to allow new, expanded permitted agricultural uses in these areas.

### ***North County Area Plan***

North County Area Plan Policy NC-1.2 (allows commercial mushroom growing operations to increase production, subject to a use permit) and Policy NC-1.3 (promotes the preservation and enhancement of large acreages in higher elevations and on steeper slopes for grazing) reduces the potential for conversion of farmland by supporting expansion of agricultural uses. Policy NC-6.1 (land designated for farmland and grazing uses be assessed and taxed accordingly) would allow more secure tax benefits for farmland and grazing, which would encourage the conservation of those uses by the owners.

### ***Greater Salinas Area Plan***

Greater Salinas Area Plan Policy GS-1.1 (specific agricultural buffers in the Butterfly Village Special Treatment Area) would reduce potential conversion impacts by establishing buffers in the Butterfly Village Special Treatment Area. Policies GS-1.3 (restrictions for visiting farms on the agricultural property in the Highway 68/Foster Road Special Treatment Area) and GS-1.5 (encourage commercial uses which support farm activities near Highway 68 and the Salinas River) reduce potential conversion impacts by taking measures to protect and support agricultural uses in the Special Treatment Area. Policies GS-1.7 (Spence/Potter/Encinal Road Study Area new development requirements), GS-1.8 (town of Spreckels may be developed as agriculturally related commercial uses), GS-1.9 (town of Spreckels industrial development requirements), GS-1.10 (Special Treatment Area designation at Natividad/Rogge Road to permit soil dependent agricultural operations), and GS-1.11 (establish Espinosa Road Study Area to potentially encourage more intensive agricultural uses and businesses) identify specific parcels and/or locations, and either require or encourage future development on these sites to preserve existing agricultural uses (if present) or ensure compatibility with adjacent agricultural uses (if present). With their support of potential future agricultural development, these policies would reduce the potential conversion of agricultural lands to non-agricultural uses. Policy GS-6.1 (promotes the donation of development rights on agricultural land to a duly established Farmland Trust or other qualified organization that meets the criteria of Section 501(c)(3) of the Internal Revenue Code), Policy GS-6.2 (allows accessory uses on agricultural land that maintain the viability of continued agricultural production) and Policy GS-6.3 (sets forth standards for support facilities on agricultural land that would ensure compatibility with agricultural production) establish standards that promote

continuation of agricultural uses, which reduces the potential for agricultural land conversion to non-agricultural uses.

### ***Central Salinas Valley Area Plan***

Implementation of Central Salinas Valley Area Plan Policies CSV-1.3 (specific development requirements for the Spence/Potter/Encinal Road area that would allow for alternative land uses to support the agricultural industry) and CSV-1.4 (details of requirements for various studies to ensure that surrounding agricultural uses in the Spence/Potter/Encinal Road area would not be adversely affected) would provide protection for agricultural land to reduce potential conversion impacts in the plan area.

### ***Carmel Valley Master Plan***

Carmel Valley Master Plan Policy CV-6 (future development adjacent to agricultural lands must be planned to minimize adverse effects on the productivity of the agricultural soils) and policy CV-6.3 (croplands and orchards be retained for agricultural use and promotes the use of low-density, clustered development to preserve agricultural lands) establish protections that reduce the potential for conversion of agricultural land.

### ***Toro Area Plan***

Toro Area Plan Policy T-3.6 (preservation and enhancement of large acreages in higher elevations and on steeper slopes for grazing) protects agricultural land and would subsequently reduce impacts from conversion of agricultural land.

### ***Cachagua Area Plan***

Cachagua Area Plan Policy CACH-2.3 ( private airstrips and agricultural landing fields must have a use permit and be controlled to ensure that they do not permanently preclude cultivation of Farmlands of Local Importance) protects potential uses of land for agricultural production.

### ***South County Area Plan***

South County Area Plan Policy SC-1.2 (encourages clustered development in all areas where development is permitted) and policy SC-6.1 (promotes the conservation of irrigated and non-irrigated farmlands) promote preservation of agricultural land. Policy SC-1.3 (supports policies and programs such as large lot zoning and agricultural land trusts) would reduce pressure to convert farmland to non-agricultural uses by enhancing the competitive capabilities of farms and ranches.

### *Agricultural Winery Corridor Plan*

The AWCP included in the 2007 General Plan is designed to promote development of an integrated wine industry in Monterey County. Monterey County has nine approved American Viticulture Area appellations, and the proposed AWCP includes much of the Monterey appellation plus the areas of Santa Lucia Highlands, Arroyo Seco, Chalone, San Lucas, San Bernabe, Hames Valley, and San Antonio Valley (Monterey County Vinters and Growers Association 2008). The only approved appellation not included in the AWCP is Carmel Valley. The AWCP designates a winery corridor within portions of three planning areas: Toro, Central Salinas Valley, and South County. The 2007 General Plan sets general land use policies to guide the establishment of a defined number of wineries and tasting rooms within each segment of the corridor.

Agricultural Element Goal AG-4 and its corresponding policies (AG-4.1 through AG-4.4) establish the framework for the Agricultural Winery Corridor Plan (AWCP), and support the marketing and promotion of the area as a wine industry. The policies establish guidelines to balance the needs of tourism, marketing, and wine processing capacity.

The AWCP would authorize up to 40 artisan wineries, 10 full-scale wineries, and 10 tasting rooms within the corridors, as well as supporting activities and bed and breakfast inns as discussed below. The 2007 General Plan and its AWCP policies include standards that regulate the size and location of wineries; they are designed to allow for development of an AWCP that is consistent with the existing agricultural land uses. Development standards under Section 3.5 of the AWCP limit minimum parcel size within the corridor to 5 acres, and then only under specified circumstances. It limits building site coverage to 30% of the total site; building height to 35 feet and, for processing facilities, 45 feet; requires wineries to be set back at least 100 feet from property lines and 200 feet from a private residence, with greater setbacks when tasting rooms, retail sales, tours, or special events are included in the winery; and establishes minimum parking requirements.

Moreover, policies AG-4.1 (support of development of a fully integrated wine industry), AG-4.2 (establishment of a winery corridor), AG-4.3 (development and maintenance of an AWCP), and AG-4.4 (wineries are allowed outside the winery corridor subject to conformance with zoning) ensure that winery land uses remain consistent and compatible with surrounding land uses in agricultural production. A total of three restaurants, five delicatessens, and eight inns would also be allowed under the AWCP. Each segment of the winery corridor would have a maximum number of each type of

development. In addition, one consolidated area may be identified for a wine-related business cluster. No specific locations have been identified for any of these future uses.

Most of the area within the AWCP boundaries contains cultivated fields or grazing land. Nearly all of the cultivated fields are identified as Important Farmland by the California Department of Conservation. A significant percentage of the lands along the River Road/Arroyo Seco Road/Central Avenue and Metz Road corridors are encumbered by Williamson Act contracts, with a smaller percentage of the lands along Jolon Road under these contracts. Note that portions of the corridor in and around the cities of Soledad and Greenfield are encumbered by Farmland Security Zone contracts, which confer a greater degree of protection than standard Williamson Act contracts. Agricultural and winery uses are generally consistent with the Williamson Act; however, uses such as restaurants and bed and breakfast facilities are not. (See discussion under Impact AG-2.)

Implementation of the AWCP would promote the continued cultivation of Important Farmland in Monterey County by facilitating planned development of wineries that would produce wine products from locally grown grapes. Development of wineries would enhance the economic viability of agriculture by providing an additional income stream and reduce economic pressures to convert agricultural land to urban uses, which would ultimately preserve Important Farmland.

### **Significance Determination**

Development and land use activities contemplated by the 2007 General Plan would result in the significant and unavoidable conversion of Important Farmland to non-agricultural uses. A total of 2,571 acres of Important Farmland are anticipated to be permanently and irreversibly converted to urban uses. Implementation of the 2007 General Plan and Area Plan policies would ensure that conversion of Important Farmland to non-agricultural uses is minimized to the maximum extent possible through (1) land use concepts such as city-centered growth and clustered development to provide for housing opportunities as required under California Planning Law, and (2) programs that promote the conservation of viable agricultural land, including the AWCP.

Policies AG-1.1 through AG-1.4, described above, partially mitigate this impact by helping protect and preserve agricultural lands. The requirements of the prospective mitigation program to be developed under Policy 1.12 to protect remaining Important Farmland permanently would partially reduce the significance of this impact. However, because the requirements are yet to be determined, the effectiveness of that program cannot be known at this time. In addition or moreover, the loss of Important Farmland cannot be



mitigated to a level of insignificance once land is permanently converted to non-agricultural land use; therefore, such loss is a significant unavoidable impact associated with implementation of the 2007 General Plan.

The AWCP encompasses large acreages of Important Farmland. Implementation of the AWCP would facilitate development of up to 40 artisan wineries, 10 full-scale wineries, and 10 stand-alone tasting rooms, as well as restaurants, inns, bed and breakfast inns, and a business cluster. The County Zoning Ordinance allows bed and breakfast inns within the “F” Farmland Zoning District upon approval of a conditional use permit (Chapter 21.30, Title 21, Monterey County Code). The other uses are not allowed and would require a zoning change. The potential impacts of any future restaurants, inns, or the business cluster cannot be determined at this time because their sizes, intensities, and locations are unknown. However, the provisions of the AWCP would require setbacks from adjoining agricultural lands, as well as limit the size of any new parcels created for AWCP activities to at least 5 acres.

When approved, development of these uses would be consistent with the agricultural land use designations of the parcels on which they would be located. As discussed in Section 4.9, Biological Resources, new vineyards are likely to be established on lands currently devoted to grazing, thereby expanding the amount of Important Farmland. Moreover, these uses would inherently support agriculture and enhance the long-term economic viability of agriculture in Monterey County. Therefore, Important Farmland land would not be lost, but would be enhanced by implementation of the AWCP.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is feasible.

### **Significance Conclusion**

Implementation of the 2007 General Plan would result in the loss of Important Farmland. Although implementation of the 2007 General Plan policies discussed above would reduce this impact, they would not reduce it to a less-than-significant level, and no additional mitigation is feasible.

## **Buildout**

### **Impact of Development with Policies**

Buildout to the 2092 General Plan could result in the conversion of Important Farmland to non-agricultural uses. It is somewhat speculative to evaluate the specific potential impacts of conversion related to ultimate buildout of all residential lots in the county because the buildout year (2092) occurs over 100 years in the future. However, given projected population increases, the trend of agricultural conversion to urban uses is expected to continue, as the population in the county grows. Urban uses will displace agricultural use, particularly in the cities, Community Areas, and Rural Communities of

Monterey County. Unless a substantial new source of water is tapped for the Monterey Peninsula, most new urban development will occur inland where agricultural land is most prevalent.

The availability of water will be a decisive factor in future agricultural use. The Salinas Valley Water Project Zone 2C area of benefit encompasses approximately 240,180 acres of farmland and 45,500 acres of grazing land. The EIR prepared for the Salinas Valley Water Project projects that by 2030 there will be a net loss of agricultural land due to urbanization. The availability of water to what is now grazing lands offers some opportunity for conversion of grazing land to irrigated agricultural land in the longer term future, despite the projections of the Salinas Valley Water Project EIR. The extent to which that might occur cannot be known at this time.

Among the factors that might affect this trend either by reducing or expanding the extent of conversion are future changes to State law regarding the conversion of agricultural land; future regulation of development to reduce greenhouse gas production that would otherwise result from scattered land use patterns; competition for water supplies (particularly since future water supplies will probably be similar to those today); the viability of foreign and domestic markets for agricultural products that are capable of being grown in Monterey County (e.g., county growers' future success in competitive markets); future mobility (e.g., whether movement of goods and people will be easier or more difficult than today); and future environmental regulations that may affect commercial agricultural practices by raising the cost of production or making certain crops impractical to grow. The effects of these factors, if any, on the conversion of agricultural land are not known and cannot be known at this time.

#### 2007 General Plan Policies

The 2007 General Plan contains goals and policies that address agricultural resources impacts from buildout of the 2007 General Plan; see discussion above under "2030 Planning Horizon".

#### Significance Determination

Buildout by 2092 would potentially result in adverse impacts to Important Farmland assuming that current trends continue. However, the 2007 General Plan and Area Plan policies set forth comprehensive measures to avoid and minimize adverse impacts on farmland to the maximum extent practicable. The 2007 General Plan employs land use concepts such as city-centered growth and clustered development to provide for housing opportunities as required under California Planning Law and programs that promote the conservation of viable agricultural land, including the AWCP to minimize conversion of Important Farmland to non-agricultural uses to the maximum extent possible. Given that the buildout of the 2007 General Plan would not occur until 2092 and that there are many factors, as described above, that could change by then which would dictate the significance of Important

Farmland conversion, it is not possible to precisely determine the impacts from conversion in 2092 nor is it feasible to devise mitigation measures to be implemented at that time. However, given current trends, the significance of impacts are expected to be significant and unavoidable.

#### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is feasible because the future economic and physical environment cannot be known at this time.

#### **Significance Conclusion**

Buildout by 2092 would result in adverse impacts to Important Farmland. The possible impacts would be significant and unavoidable.

### **Agricultural Use Zoning and Williamson Act Contracts**

#### **Impact AG-2: Implementation of the 2007 General Plan would result in conflicts with existing zoning for agricultural use or Williamson Act contracts. (Less Than Significant Impact.)**

This impact is not the same as the conversion of agricultural land. Conflict with existing zoning or a Williamson Act contract would occur if the 2007 General Plan would allow incompatible uses on agriculturally zoned or contracted lands. Allowing compatible uses on Williamson Act lands would not result in a conflict, nor would the termination of Williamson Act contracts in accordance with the procedures for termination set out in the Williamson Act.

#### **2030 Planning Horizon**

##### **Impact of Development with Policies**

Implementation of the 2007 General Plan to the 2030 planning horizon would not result in conflicts with Williamson Act contracts within the county. Williamson Act contract acreage (including lands within Farmland Security Zones) increased by 76,930 acres (11%) from 1991 to 2007, totaling approximately 763,396 acres of agricultural land under Williamson Act contracts in unincorporated Monterey County.

The latest year of GIS data available for Williamson Act contracts is 2004. Using the 2004 data, the 2007 GP would ultimately result in conversion of 6,874 acres under Williamson Act contract to urban uses. Note that this figure includes 299 acres of Williamson Act land that is within the Sphere of Influence of the cities. A city's Sphere of Influence describes the area that would eventually be annexed to the city. Agricultural lands within a Sphere of Influence can be expected to eventually convert to urban use and the Williamson Act contract would either be non-renewed or cancelled prior to that time.

The county does not allow non-compatible uses within lands under Williamson Act contract. Contract cancellations are rarely approved by Monterey County, and then only in strict adherence to Williamson Act findings requirements and recognizing the role of the Department of Conservation in overseeing cancellations of Farmland Security Zones. The eventual termination of contracts as cities begin to annex the land within their Spheres of Influence will also occur in accordance with statute.

### 2007 General Plan Policies

The 2007 General Plan contains goals and policies that minimize conflicts with Williamson Act contracts. The applicable goals are included in the summary of the Land Use Element and Agricultural Element policies under Impact AG-1. Note that Williamson Act contracts (including Farmland Security Zones) are the premiere tax incentive for the preservation of agricultural lands, and are thus the primary target for Agricultural Element Policy AG-1.5 (encourages the use of tax and economic incentives to enhance the competitive capabilities of farms and ranches in order to promote long-term conservation, enhancement, and expansion of viable agricultural lands). This policy would encourage owners to continue agricultural uses and Williamson Act contracts on their property.

### Area Plan Policies

The Area Plan supplemental policies listed under Impact AG-1 establish specific measures to promote the conservation of agricultural lands. Conservation of these lands would reduce pressures to convert farmland to non-agricultural uses. Additional applicable policies are listed below.

#### ***North County Area Plan***

North County Area Plan Policy NC-6.1 (summarized above in Impact AG-1) would allow more secure tax benefits for farmland and grazing, which would encourage the conservation of those uses by the owners.

Policy AG-1.4 (provides that viable agricultural land uses will be conserved, enhanced, and expanded through land use designations and encouragement of large lot agricultural zoning, and establishes agriculture as the top land use priority for guiding further economic development on agricultural lands) helps protect the economic viability of Williamson Act contracted lands, which would result in less threat of conversion of such lands.

#### ***Agricultural Winery Corridor Plan***

Parcels within the boundaries of the AWCP are under Williamson Act contracts. The Williamson Act authorizes the Board of

Supervisors to adopt rules governing its administration, subject to certification by the State Department of Conservation. One limitation of a Williamson Act contract is a requirement to retain an economically viable agricultural operation. A second limitation is a minimum parcel size of 10 acres.

AWCP development proposals on Williamson Act properties would not include uses that are inconsistent with the Williamson Act. Certain types of facilities allowed under the AWCP, such as wineries, tasting rooms, and restaurants and bed-and-breakfasts, would require prior approval of a conditional use permit before they may be allowed within an agricultural area. Because they are not considered “compatible uses” under the County’s Williamson Act program these uses would not be allowed on Williamson Act-contracted land. Put another way, Williamson Act contracted land would not be available for these uses. Based on the County’s past strict interpretation of contract cancellation requirements and Department of Conservation oversight, contract cancellations to allow these uses are unlikely to be proposed on contracted lands and, if proposed, would not be approved. The AWCP allows creation of 5-acre parcels. However, because the Williamson Act limits the size of contracted parcels to 10 acres, no contracted land would be subdivided into such small parcels.

### **Significance Determination**

Implementation of the 2007 General Plan, including Area Plans, would result in the eventual conversion of Williamson Act-contracted farmland to non-agricultural uses. This is expected primarily to occur where future planned development would be in close proximity to agricultural lands, including areas in or around the city Spheres of Influence, the Castroville, Chualar, and Pajaro Community Areas and the San Lucas Rural Center. Because incompatible uses would be precluded within the AWCP and would therefore be located on non-contracted land, impacts on Williamson Act properties associated with AWCP development would be less than significant. Implementation of the 2007 General Plan and Area Plan policies described above would ensure that conversion of Williamson Act farmland to non-agricultural uses is minimized to the greatest extent possible through the use of land use concepts such as city-centered growth, clustered development, and programs that promote the conservation of Williamson Act farmland. Any termination of Williamson Act contracts would be undertaken consistently with the provisions of the Act. Overall, the amount of agricultural land in the county is expected to remain steady, or decline slightly, to the 2030 planning horizon. This would be a less than significant impact associated with implementation of the 2007 General Plan.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

### **Significance Conclusion**

Implementation of the 2007 General Plan goals and policies would result in a less-than-significant impact.

## **Buildout**

### **Impact of Development with Policies**

Buildout to the 2092 General Plan would not result in conflicts with Williamson Act contracted land. As stated above in the “Buildout” analysis under Impact AG-1, it is somewhat speculative to evaluate the specific potential impacts to agriculture related to ultimate buildout of all residential lots in the county. The trend of agricultural conversion to urban uses is expected to continue, as the population in the county grows and urban uses will displace agricultural use, particularly in the cities, Community Areas, and Rural Centers of Monterey County. As a result, by buildout, agricultural land (and by proxy Williamson Act land) will decline in area. There is no reason to expect, however, that the County’s approach to administering the Williamson Act would substantially change.

#### 2007 General Plan Policies

The 2007 General Plan contains goals and policies that address agricultural resources impacts from buildout of the 2007 General Plan; see discussion above under “2030 Planning Horizon”.

### **Significance Determination**

Buildout by 2092 would not result in conflicts with Williamson Act contracted land. Implementation of the 2007 General Plan and Area Plan policies described above would ensure that conversion of Williamson Act farmland to non-agricultural uses is minimized to the greatest extent possible through the use of land use concepts such as city-centered growth, clustered development, and programs that promote the conservation of Williamson Act farmland. Given that the buildout of the 2007 General Plan would not occur until 2092 and that there are many factors that could change by then which would lead to conflicts with Williamson Act contracted land, it is not possible to precisely determine the significance of impact in 2092 nor is it possible to know whether mitigation measures would be needed at that time. However, given past County practice in the implementation of the Williamson Act, the impact is expected to be less than significant.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is necessary.

### **Significance Conclusion**

Buildout by 2092 would result in less than significant impacts to Williamson Act contracted land.

## **Conversion of Farmland to Non-Agricultural Use**

**Impact AG-3: 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. (Significant Unavoidable Impact.)**

### **2030 Planning Horizon**

#### **Impact of Development with Policies**

Implementation of the 2007 General Plan to the 2030 planning horizon would result in increased population growth and economic development that would create economic pressures to convert agricultural land to non-agricultural uses. Examples include land use conflicts between urban land uses and agricultural activities, competition for water supplies, and reduced air quality (as a result of urban development and traffic) that reduces crop yields.

#### **2007 General Plan Policies**

The 2007 General Plan contains goals and policies to promote the long-term preservation of agriculture in Monterey County. The applicable policies are included in the summary of the Land Use Element and Agricultural Element policies under Impact AG-1. Additional applicable policies are described below.

#### ***Land Use Element***

Land Use Element Policy LU-1.5 (requires that land uses be designated to achieve compatibility with adjacent uses) and Policy 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) would result in standards that separate agricultural from urban uses and thereby minimize the potential for conflicts.

### ***Agricultural Element***

Agricultural Element Policy AG-1.2 (encourages the use of land use concepts such as buffers) would reduce land use compatibility impacts between urban and agricultural land with the use of buffers.

### **Area Plan Policies**

The Area Plan supplemental policies listed under Impact AG-1 establish specific measures to promote the conservation of agricultural lands. The conservation of these lands would reduce pressures to convert farmland to non-agricultural uses, and therefore would reduce the potential for conflicts between urban and agricultural land uses.

### ***Agricultural Winery Corridor Plan***

The AWCP is consistent with all of the 2007 General Plan goals and policies summarized under Impact AG-1. In addition, the AWCP is consistent with 2007 General Plan Policy LU-2.8 (designate and establish regulations for an Agricultural Buffer/conservation easement (AB) designation to protect existing agricultural operation), which reduce land use compatibility impacts between urban and agricultural land by encouraging the use of land use concepts such as buffers. The AWCP is also consistent with 2007 General Plan Policies associated with Goal AG 4 (summarized in Impact AG-1).

Moreover, the AWCP is consistent with the 2007 General Plan policies listed under Impact AG-1 that establish specific measures to promote the conservation of agricultural lands. The AWCP would provide nearby processing for county grapes, thereby reducing the cost of transport, as well as new economic returns from wine sales and tourism. This increases the value of vineyards and lessens economic pressures to convert that farmland to non-agricultural uses.

### **Significance Determination**

New development permitted by the 2007 General Plan would create increased pressures to convert agricultural land uses to non-agricultural uses. However, as discussed under Impact AG-1, the 2007 General Plan and Area Plan policies emphasize the long-term preservation of agriculture in Monterey County and would ensure that such pressures are avoided to the maximum extent feasible. The 2007 General Plan policies emphasize compatibility between land uses and discourage the introduction of incompatible uses adjacent to existing land uses. The proposed policies allow for the implementation of land use planning tools such as buffers to soften the impacts between urban and agricultural land uses where these edges do occur. This is expected to minimize the adverse spillover effects of urban



development on agricultural land (e.g., light and glare, urban runoff, litter, and trespassing) to the maximum extent practicable.

Nonetheless, because it provides for additional residential development as required under State Planning Law, implementation of the 2007 General Plan would create development pressures that would result in the conversion of agricultural lands to non-agricultural uses within the cities, some Community Areas, and a Rural Center. Because no feasible mitigation is available to reduce the significance of this impact to a less-than-significant level, this would be a significant and unavoidable impact associated with implementation of the 2007 General Plan.

### **Mitigation Measures**

No mitigation beyond the 2007 General Plan policies is feasible.

### **Significance Conclusion**

Implementation of the 2007 General Plan would result in pressure to convert agricultural land to non-agricultural uses as a result of other changes to the environment. The County has no authority to regulate land uses within the cities and so cannot stop conversions from that source. The County cannot stop new residents from moving into Monterey County. As population increases, air quality and traffic impacts will also increase, having some effect on crop yields. Although the proposed 2007 General Plan policies include provisions for reducing demand on from new residential development groundwater (Goal PS-2 and Policies PS-2.8 and PS-2.9), demand will increase over the planning period due to both new development in the cities and development of individual lots in the county. Implementation of the 2007 General Plan goals and policies would reduce impacts, but not to a less-than-significant level.

## **Buildout**

### **Impact of Development with Policies**

Buildout to the 2092 General Plan would result in potential conversion of agricultural land to non-agricultural uses as a result of other changes to the environment. As stated above in the “Buildout” analysis under Impact AG-1, it is somewhat speculative to evaluate the specific potential impacts to agriculture related to ultimate buildout of all residential lots in the county. The trend of agricultural conversion to urban uses is expected to continue, as the population in the county grows and urban uses will displace agricultural use, particularly in the cities, Community Areas, and Rural Communities of Monterey County. Many factors that might affect the trend could change and the effects of these factors, if any, on the conversion of agricultural land are not known and cannot be known at this time.

### 2007 General Plan Policies

The 2007 General Plan contains goals and policies that address agricultural resources impacts from buildout of the 2007 General Plan; see discussion above under “2030 Planning Horizon.”

### Significance Determination

Buildout by 2092 could potentially result in conversion of agricultural land to non-agricultural land due to other environmental changes. However, the 2007 General Plan and Area Plan policies emphasize the long-term preservation of agriculture in Monterey County and would ensure that such pressures are avoided to the maximum extent feasible. The 2007 General Plan policies emphasize compatibility between land uses and discourage the introduction of incompatible uses adjacent to existing land uses. The proposed policies allow for the implementation of land use planning tools such as buffers to soften the impacts between urban and agricultural land uses where these edges do occur. This is expected to minimize the adverse spillover effects of urban development on agricultural land (e.g., light and glare, urban runoff, litter, and trespassing) to the maximum extent practicable. Given that the buildout of the 2007 General Plan would not occur until 2092 and that there are many factors that could change by then which would dictate the existence and conversion of agricultural land, it is not possible to determine the precise significance of impact in 2092 nor is it feasible to devise mitigation measures to be implemented at that time. However, given past trends and expected population growth, the impact is likely to be significant and unavoidable.

### **Mitigation Measures**

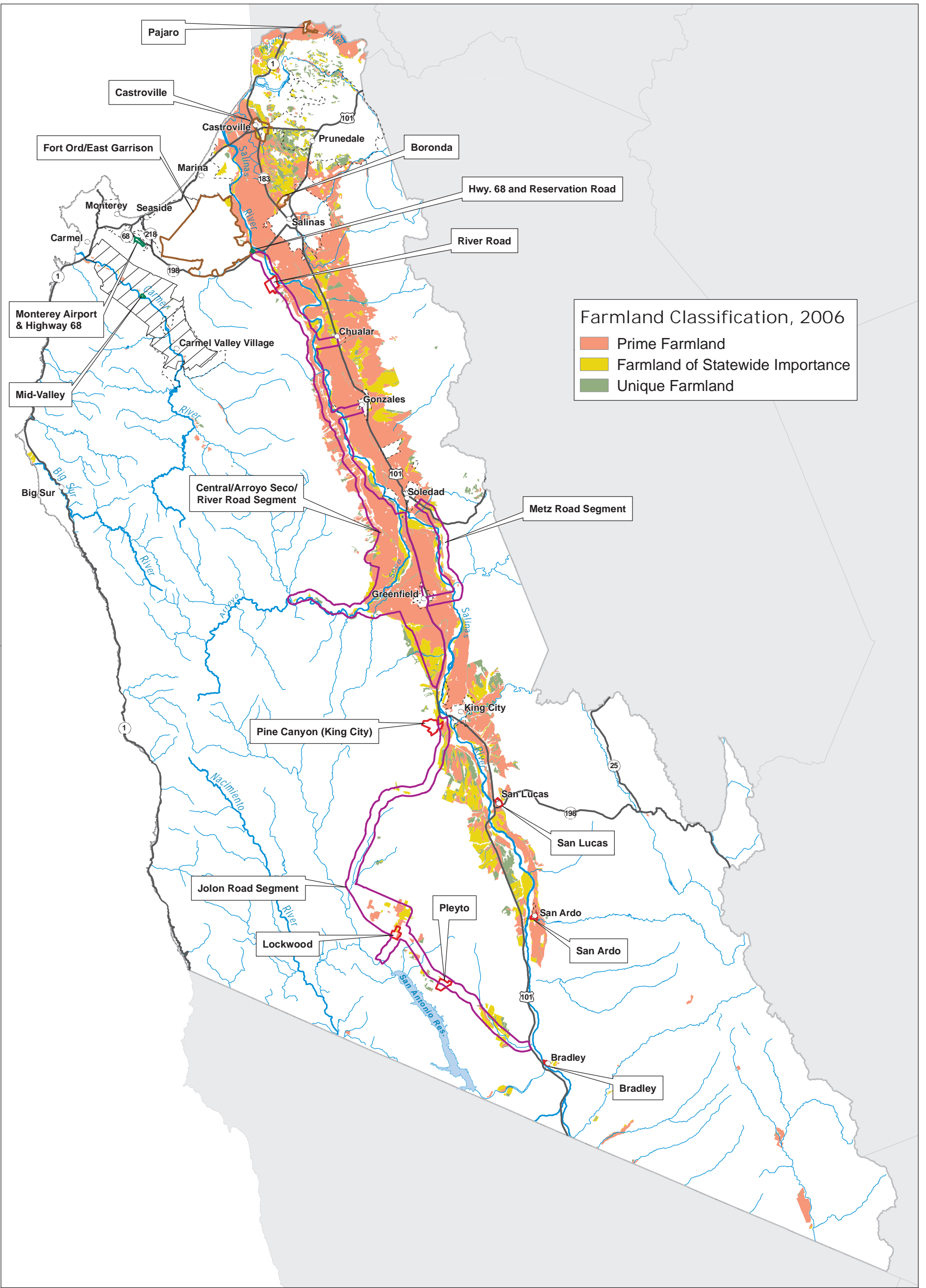
No mitigation beyond the 2007 General Plan policies is feasible.

### Significance Conclusion

Buildout by 2092 could potentially result in conversion of agricultural land to non-agricultural land due to other environmental changes. The impact will be significant and unavoidable.

## **4.2.6 Level of Significance after Mitigation**

Conversion of Important Farmland to non-agricultural use and conversion of agricultural land to non-agricultural uses would lead to significant unavoidable impacts associated with implementation of the 2007 General Plan. The 2007 General Plan establishes policies and regulations to reduce such impacts, but not to a less-than-significant level. Conversions of Williamson Act contract land would be less than significant.

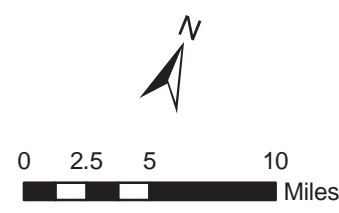


**Farmland Classification, 2006**

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland

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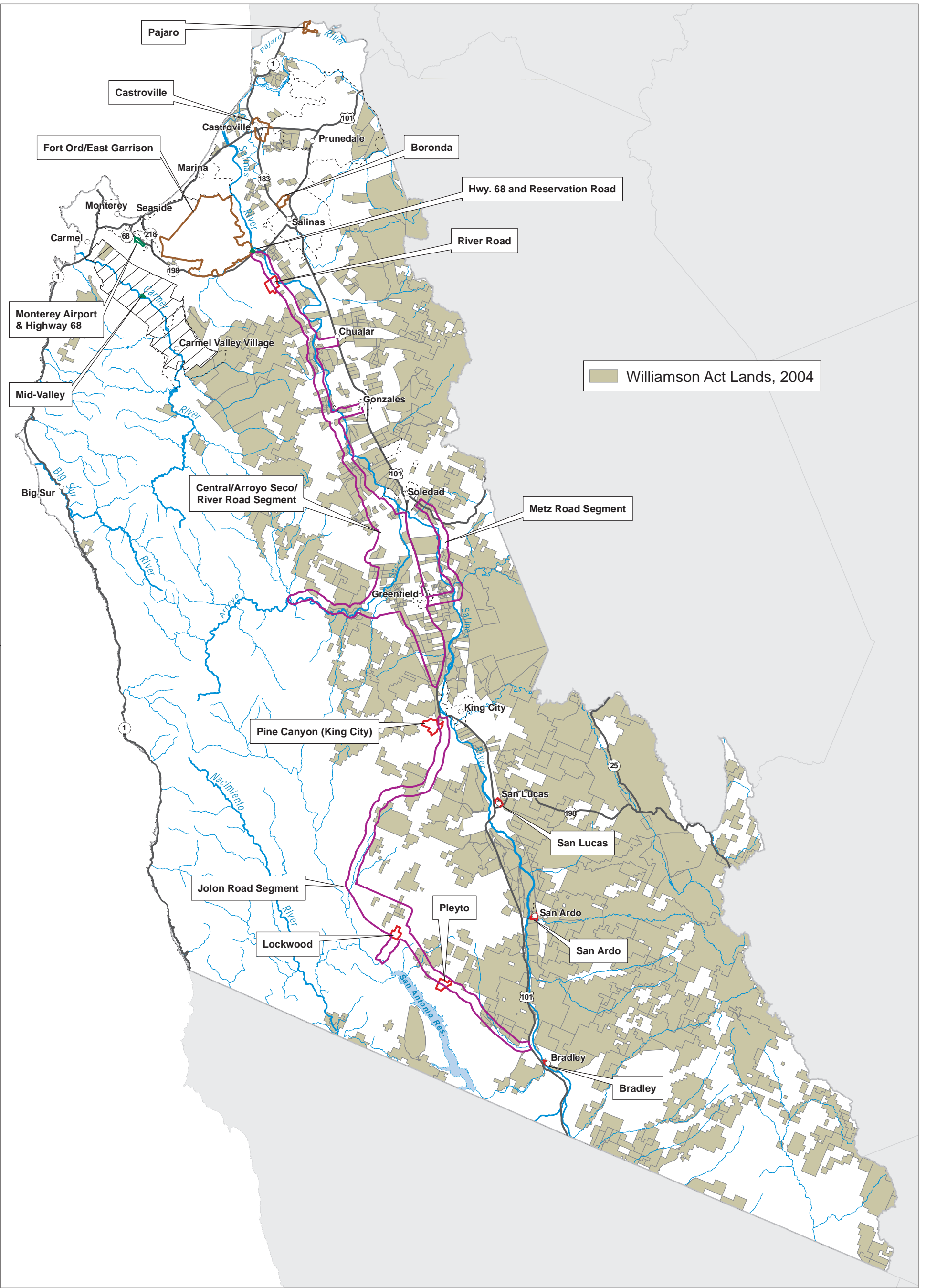
**Exhibit 4.2.1  
Important  
Farmland**



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



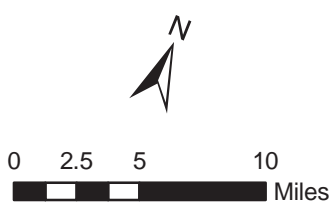
Sources: California Department of Conservation, Farmland Mapping and Monitoring Program 2006, California Spatial Information Library.



S:\GIS\PROJECTS\COUNTY\_OF\_MONTEREY\00982\_071\MAPDOC\FIG4\_2\_2\_WILLIAMSONACT.MXD PG (07-30-08)

Williamson Act Lands, 2004

**Exhibit 4.2.2  
Williamson Act  
Land**



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



Sources: California Department of Conservation, Farmland Mapping and Monitoring Program 2006. California Spatial Information Library.

## 4.3 Water Resources

This section of the EIR discusses water and its importance as a fundamental component of the environment, beginning with an overview of the current physical characteristics of Monterey County's surface- and groundwater systems. Water supply and demand for human consumption and associated infrastructure is also discussed. Related topics such as tsunamis, seiches, and mudflows are discussed separately in Section 4.4, Geology, Soils, and Seismicity.

### 4.3.1 Abstract

Monterey County depends on supplies from its own watersheds and does not receive imported water from other regions of California. The three major watersheds in Monterey County—the Salinas, Carmel, and Pajaro Rivers—all have significant constraints. Erosion associated with agriculture has deteriorated surface water quality in the Salinas and Pajaro Valleys. High nitrate levels have been recorded in the Salinas Valley and in the area known as “North County,” which lies between the Salinas and Pajaro Valleys. Groundwater overdraft is a significant problem in North County. Seawater intrusion into groundwater sources is a substantial issue near Pajaro and Castroville. Flood hazards are present along the major drainages in the county. Tsunami inundation areas are located in the coastal portions of the county.

Development and land use activities contemplated in the 2007 *Monterey County General Plan* (2007 General Plan) would result in the following significant impacts on water resources.

- **Water Supply**—Implementation of the 2007 General Plan would increase demand for water up to the 2030 planning horizon. Supply in the Salinas Valley provided by the Salinas Valley Water Projects is adequate to provide new water for new development up to 2030. Increased demand on the Monterey Peninsula and in the Pajaro Valley would require new or expanded water facilities and new or expanded water entitlements. Supply on the Monterey Peninsula will be adequate to meet current demand, assuming that the CalAm seawater desalination plant is permitted and operational by 2015 as currently expected, but will not be sufficient to meet additional demand up to the 2030 planning horizon without adversely affecting groundwater; thus additional water supply infrastructure will be needed. Supply in the Pajaro Valley would not meet demand up to the 2030 planning horizon without overdraft of the aquifer even with implementation of local recycled water projects, diversions, and conservation due to the difficulties with importation of water. Current water supply planning does not anticipate meeting demands to the 2092 planning horizon; while water resources are available from county rivers and in some groundwater basins, these resources have not yet been fully proven and thus are uncertain at this time. Mitigation

measures are proposed to provide additional water supply, but uncertainty over their success leaves this a significant, unavoidable impact in all basins for buildout.

- **Water Supply Infrastructure** – Implementation of the 2007 General Plan would result in demand for new water infrastructure including: the under-construction Salinas Valley Water Project (SVWP) and new distribution facilities in the Salinas Valley for 2030 and new diversions, reservoir expansion, and distribution facilities for buildout; desalination, aquifer storage, recycled water, and distribution facilities for 2030 and further desalination, recycling, aquifer storage, diversions, and distribution facilities for buildout related to the Monterey Peninsula; and recycled water, desalination, distribution facilities and possible future import pipeline facilities for the Pajaro Valley. This new infrastructure would have construction and/or operational impacts on biological resources, hydrology and water quality, farmland, recreation, geology and soils, cultural resources, traffic, noise, air quality, utility disruption, and growth inducement. While many of these impacts can be mitigated to a less-than-significant level (as shown in completed CEQA evaluations of the MCWRA SVWP, the MPWMD aquifer storage and recovery project, and the PVWMA's Basin Management Plan), it is not considered feasible that all significant impacts will be mitigated to a less than significant level and thus this is identified as a significant and unavoidable impact.
- **Groundwater level decline and overdraft and saltwater intrusion:** Current water supply planning, with mitigation, is adequate to address overdraft and saltwater intrusion in the Salinas Valley up to the 2030 planning horizon. Development and land use activities anticipated in the 2007 General Plan would exacerbate existing groundwater overdraft conditions and saltwater intrusion within the Seaside Aquifer and the Pajaro Valley. Mitigation is proposed, but this would be a significant and unavoidable impact under the 2030 planning horizon for the Seaside Aquifer and Pajaro Valley due to the uncertainty regarding the feasibility and timing of new supplies. Current water supply planning does not anticipate meeting demands to the 2092 planning horizon; while water resources are available, they have not yet been fully proven and thus their feasibility for, and timing to, avoid further groundwater overdraft and saltwater intrusion is uncertain. Mitigation is proposed but this would be a significant and unavoidable impact for buildout for all areas in 2092 due to the uncertainty.

All other water resources impacts would be less than significant during the 2030 planning horizon and would not require mitigation.

## 4.3.2 Existing Conditions

### 4.3.2.1 Regional Setting

#### Climate

The climate of Monterey County is characterized by warm dry summers and cool moist winters. The average temperature is approximately 56°F. Average rainfall across the county is approximately 15 inches per year, though rainfall in excess of 30 inches has been recorded in some years. Approximately 90% of this rainfall occurs between November and April. Measurable precipitation averages 51 days per year, and the average length of the growing season is 235 days (Monterey County Water Resources Agency 2003).

Average annual precipitation in King City, in the inland portion of the Salinas River watershed, is 11 inches. In contrast, average annual precipitation for the Big Sur watershed is estimated at 43 inches (Monterey County Water Resources Agency 2003).

#### Topography and Drainage

Topography within Monterey County is extremely varied. Elevations range from sea level to 5,844 feet at Junipero Serra Peak, which is located 12 miles inland in the Santa Lucia range. The county includes the famous Salinas Valley, which is bounded by the Gabilan Mountains to the east and the Santa Lucia Mountains to the west. The valley is 10 to 20 miles wide and 130 miles long and has approximately 1,000 square miles of broad bottom land (Monterey County Water Resources Agency 2003).

The Gabilan and Santa Lucia Mountains are the sources of the principal watercourses in the area. The largest of these, the Salinas River, is 155 miles long. This river roughly bisects the county, running from Santa Margarita Reservoir in San Luis Obispo County northwest to its termination point at Monterey Bay. Meandering creeks generally have their headwaters in the surrounding mountains and then drain across the flat, alluvial portions of the Salinas Valley.

Drainage patterns in Monterey County have been altered by urbanization, resulting in increased runoff that poses a greater flood threat than in previous years. To accommodate the increasing runoff, many cities in the county have developed extensive storm drainage systems. The overall drainage pattern in the county is from south to north, the direction of flow of the Salinas River.

### 4.3.2.2 Monterey County Watersheds

Water resources are commonly described and characterized in terms of “watersheds,” referring to the topographic area that is tributary to a particular river system. Watershed and drainage basin often are used interchangeably. Both terms refer to surface water, the component of the natural water system that originates in precipitation, gathers to form runoff, and either infiltrates into the soil or flows into creeks and rivers. Groundwater basins, though not corresponding to watershed boundaries, convey underground flows and have a direct relationship via the soil to surface water flows.

Monterey County has two major watersheds (Exhibit 4.3.1), the Salinas River watershed (by far the largest) and the Carmel River watershed. There are also many smaller watersheds, including those of the Big Sur Coast, El Toro, Laguna Seca, and Canyon del Rey. The Pajaro River watershed in the North County and the Estrella watershed in the southeast county are only partially within Monterey County. Each of these watersheds has tributary drainages with seasonal creeks and streams. The following section describes water resources of major watersheds—their surface water, their groundwater, and the influences on their hydrology. A subsequent section discusses water quality and supply issues in each of the basins.

Three major water resource agencies have somewhat overlapping daily responsibilities in overseeing and managing surface- and groundwater within the county.

- The Monterey County Water Resources Agency (MCWRA) has countywide jurisdiction over flood control and water resources management.
- The Monterey Peninsula Water Management District (MPWMD) manages water resources on the peninsula, primarily the Carmel River, its tributaries, and impoundments, as well as the groundwater beneath its management area.
- The Pajaro Valley Water Management Agency (PVWMA) manages surface- and groundwater along the Pajaro River, both in the North County area of Monterey County and in Santa Cruz County.

Because of their overlapping areas of responsibility and the need to coordinate water resources management on a larger scale, these agencies have Memoranda of Understanding (MOUs) with each other that outline how they will coordinate planning and engineering, policy development, and program development and implementation. Section 4.3.3, Regulatory Framework, provides more detailed information on these and other state and federal agencies that have some jurisdiction over Monterey County’s water resources.

### Salinas River Watershed

The Salinas River basin hydrology, as it exists today, is far from natural. In addition to altering the basin’s hydrology by extracting water for consumption,



human activities have significantly altered the natural hydrology through various diversions of the basin's surface water. Major alterations include the Nacimiento and San Antonio Reservoirs, which alter the timing and magnitude of flows in the river throughout its entire length in the county. In its natural state, most of the land west of the city of Salinas was swamp. In 1917, the Reclamation Ditch was constructed, partly along the historical course of Gabilan Creek as it wound its way through low-lying sloughs and swamps to Tembladero Slough, the Old Salinas River Channel, Elkhorn Slough, and Monterey Bay. Land reclamation to accommodate agriculture and urban development has eliminated most natural lakes and ponds (including eight lakes that historically drained into Tembladero Slough). Grading and irrigation for agricultural fields has redirected, channelized, or removed many creeks and tributaries throughout the basin floor. Urban development has eliminated or greatly modified the natural course and flow of creeks. Further modifications to accommodate human activities currently are planned as part of the Salinas Valley Water Project (SVWP).

The Salinas River drains an area of approximately 3,950 square miles and is the largest water system in Monterey County (Exhibit 4.3.2). In Monterey County, the river meanders through the Salinas Valley floor, an area of about 1,000 square miles (Monterey County Water Resources Agency 2003). Several tributaries enter the river along this length, including Pancho Rico Creek, Santa Rita Creek, Estrella Creek, Reliz Creek, Chalone Creek, San Lorenzo Creek, the Arroyo Seco River, El Toro Creek, Prunedale Creek, the Nacimiento River, and the San Antonio River. The Nacimiento and San Antonio Rivers are by far the largest tributaries, encompassing tributary watersheds of about 330 square miles. Dams owned and operated by the MCWRA control flow volumes in both of these rivers.

Average annual flows to the ocean from the Salinas River are around 282,000 acre feet per year (AFY), most of which occurs from November through March (an acre-foot of water is defined as the volume of 1 acre of surface area to a depth of 1 foot and is equal to 325,851.4 gallons). This period corresponds to the months of peak seasonal rainfall and coincides with a seasonal drop in irrigation in the valley. During spring and summer, the two reservoirs on the Nacimiento and San Antonio Rivers regulate flow to minimize outflow to the ocean and maximize groundwater recharge through the Salinas River bed. Under current reservoir operations, water is released into the river during summer to recharge groundwater in the basin. Because a natural clay layer underlies the river north of Chualar inhibiting groundwater recharge from the channel, outflows from the dams are regulated to maintain river flow only as far north as the State Route (SR) 68 bridge.

As previously mentioned, water resources in the Salinas River watershed are managed by the MCWRA. Most water users in the Salinas Valley unincorporated county area are agricultural, using the majority of the more than 700 wells throughout the basin. All the water used in the basin—for irrigation, domestic, municipal, and industrial purposes—is supplied from groundwater (with the exception of an area near Greenfield, which has a diversion from the Arroyo Seco River). One of the main environmental water uses in the region is

for the 366-acre Salinas River National Wildlife Refuge, where the Salinas River empties into Monterey Bay (California Department of Water Resources 2005).

### **Nacimiento Reservoir**

Nacimiento Dam is a large earth fill dam, constructed in 1957, owned and operated by the MCWRA. Although it is located approximately 15 miles northwest of Paso Robles in San Luis Obispo County, Nacimiento Reservoir is an important component of the region's existing water supply. It impounds 377,900 acre-feet of water, which then is released for groundwater recharge. When full, the lake is 18 miles long and has 165 miles of shoreline (Monterey County Water Resources Agency 2003).

Currently, the storage capacity in Nacimiento Reservoir is constrained because of rule curve restrictions mandated by the State of California Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC). Rule curves ensure that sufficient flood storage is available in the reservoir to safely pass the inflow design flood (Monterey County Water Resources Agency 2003).

The reservoir has a minimum pool volume of 22,300 acre-feet and a conservation pool of 237,700 acre-feet. Water from the conservation pool is released during the summer, in conjunction with releases from San Antonio Reservoir, to enhance groundwater recharge in the Salinas Valley. During the winter, flood protection is provided by keeping an empty space, called the flood pool, in the reservoir to temporarily store flood water. The flood pool is between elevation 777.3 feet and the top of the spillway, elevation 800 feet. Nacimiento Reservoir's flood pool storage is 117,900 acre-feet (Monterey County Water Resources Agency 2003).

### **San Antonio Reservoir**

San Antonio Dam and its reservoir are located approximately 7 miles southwest of Bradley on the San Antonio River in Monterey County. The earth fill dam, constructed in 1965, is owned and operated by the MCWRA. It has a 330-square-mile watershed. When full, it is 16 miles long and has approximately 100 miles of shoreline (Monterey County Water Resources Agency 2003).

The reservoir has minimum pool storage of 23,000 acre-feet. On July 24, 2000, the MCWRA Board of Directors adopted a new rule curve, reducing the maximum flood pool to 30,000 acre-feet and increasing the conservation pool to 282,000 acre-feet. When the reservoir is full (spillway elevation 780 feet), it has a maximum storage capacity of 335,000 acre-feet (Monterey County Water Resources Agency 2003).

Both Nacimiento Reservoir and San Antonio Reservoir are multiuse facilities, meaning the dams are operated for flood control, water conservation, recreation uses, and water supply. The most important priority of the water conservation operation is to maximize the amount of percolation into the Salinas Valley aquifer. This is accomplished by storing water that flows into San Antonio Reservoir so that water is available for later release during the dry summer

months when water demand is greatest (Monterey County Water Resources Agency 2003).

### **Groundwater**

Groundwater recharge in the Salinas Valley basin is principally from infiltration from the Salinas River, from Arroyo Seco, and, to a much lesser extent, from deep percolation of rainfall. Minor amounts are derived from infiltration from small streams and inflow from bedrock areas adjoining the basin. Percolation of applied irrigation water is the second largest component of the groundwater budget, but because it represents recirculation of existing groundwater rather than an inflow of “new” water, it is not considered a source of recharge.

According to the California Department of Water Resources (DWR), the Salinas Valley groundwater basin consists of one large hydrologic unit composed of four subareas (Exhibit 4.3.3). These subareas have different hydrogeologic and recharge characteristics, but barriers to horizontal flow do not separate them, and water can move between them (California Department of Water Resources 2004a–d).

- **Upper Valley Aquifer Subarea** includes approximately 98,200 acres near the south end of the Salinas Valley, from approximately Greenfield to San Ardo. The primary aquifer of the subbasin is unconfined and is represented by unconsolidated to semiconsolidated and interbedded gravel, sand, and silt of the Paso Robles Formation, alluvial fan, and river deposits. Groundwater recharge to the Upper Valley Aquifer Subarea occurs primarily from percolation in the channel of the Salinas River. (California Department of Water Resources 2004a)
- **180-Foot/400-Foot Area Subarea** includes approximately 84,400 acres of the lower reaches and mouth of the Salinas River, between Gonzales and Monterey Bay. It is composed mostly of confined and semiconfined aquifers separated by clay layers (aquitards) that limit the amount of vertical recharge. Three primary water-bearing strata have been identified in this subarea: the 180-foot aquifer (average 100 feet thick), the 400-foot aquifer (average 200 feet thick), and the Deep Zone (up to 900 feet thick). These aquifers are separated by aquitards, although areas of thin or absent aquitards allow some interconnection between the 180- and 400-foot aquifers. Heavy pumping of the 180- and 400-foot aquifers has caused significant seawater intrusion into both. Because of the impermeable nature of the clay aquitard above the 180-foot aquifer, surface recharge (including that from precipitation, agricultural return flows, and river flow) does not occur. Instead, recharge is from underflow originating from the Upper Valley and Forebay Subareas and, more recently, from seawater intrusion (California Department of Water Resources 2004b). Seawater intrusion has rendered many coastal wells in the 180-foot aquifer unusable. Much of the runoff from the Salinas River either evaporates or discharges into Monterey Bay during the wet season.
- **Forebay Aquifer Subarea** extends from Gonzales to Greenfield and consists of approximately 94,000 acres of unconsolidated alluvium (including the Arroyo Seco Cone, a large and relatively permeable alluvial fan on the west side of the Salinas Valley). The primary water-bearing units of this subbasin

are the same units that produce water in the 180- and 400-foot aquifers. Principal sources of recharge to the Forebay Subarea are percolation from the Salinas River and the Arroyo Seco River and groundwater outflow from the Upper Valley Aquifer Subarea. (California Department of Water Resources 2004c)

- **East Side Aquifer Subarea** consists of 57,500 acres from just south of Prunedale to Gonzales, along the eastern side of the lower Salinas Valley. The primary water-bearing units of this subbasin are the same units that produce water in the 180- and 400-foot aquifers. It includes unconfined and semiconfined aquifers in the northern portion of the basin that historically received most of its recharge from percolation from stream channels on the west slope of the Gabilan Range. Because of extractions in excess of recharge, the declines in groundwater level in the East Side Aquifer Subarea have induced subsurface recharge from the 180-Foot/400-Foot and Forebay Aquifer Subareas. This inflow is now a larger source of recharge than the stream channels coming from the Gabilan Range. (California Department of Water Resources 2004d.)

Table 4.3-1 provides a summary of groundwater extraction in the four subareas of the Salinas Valley groundwater basin. In all four subareas, primary groundwater quality issues are twofold: high levels of total dissolved solids (TDS) and chloride, due to seawater intrusion; and extensive nonpoint source nitrate, due to long-term agricultural production in the Salinas Valley (California Department of Water Resources 2004a–d; Monterey County Water Resources Agency 2001).

**Table 4.3-1.** Total Extraction Data in the Salinas Valley Groundwater Basin (2005)

Subarea	Agricultural Pumping (acre-feet)	Urban Pumping (acre-feet)	Total Pumping (acre-feet)
Upper Valley Aquifer	126,488	4,536	131,024
Forebay Aquifer	139,951	8,571	148,522
180-Foot/400 Foot Aquifer	97,028	21,344	118,372
East Side Aquifer	80,100	16,028	96,128
<b>Total</b>	<b>443,567</b>	<b>50,479</b>	<b>494,046</b>

Source: Monterey County Water Resources Agency 2007.

The MCWRA and its co-operators, including the Monterey Regional Water Pollution Control Agency (MRWPCA), have several major capital projects to better manage groundwater quality and reverse the long-term trend of seawater intrusion and groundwater declines in the Salinas Valley groundwater basin. Some of these projects have been completed, and others are underway.

- The MCWRA completed the Castroville Seawater Intrusion Project (CSIP) in 1998. This project injects recycled water into the aquifer to establish a hydraulic barrier to further seawater intrusion.

- The SVWP includes improvements and operational changes to management of flows in the Salinas River. It will recharge the Salinas Valley groundwater basin, halting seawater intrusion, as well as avert a maximum flood event at Nacimiento Reservoir Dam. The SVWP is currently underway; construction on the Nacimiento Dam Spillway Modification Component began in April 2008. This component will enlarge the spillway and install a rubber spillway gate to allow the reservoir to store more water, and release more water during the late spring and summer months. It is expected to be completed in the fall of 2009. The second component of the SVWP is construction of a rubber dam on the Salinas River near Marina to allow diversion of river water from late spring to early fall for treatment and piping to nearby farms for irrigation. An average of 9,700 AFY of water is expected to be made available by pumping pooled water behind the dam into the existing CSIP distribution pipeline for delivery to agricultural users. This will substantially reduce groundwater pumping during those periods and thereby allow the aquifers to retain the pressure needed to keep out seawater intrusion. The second component will begin construction after completion of the Nacimiento Dam work.

### **El Toro Creek Subwatershed**

Surface water in the El Toro Creek portion of the Salinas Valley watershed drains approximately 41 square miles to El Toro Creek, which flows northeastward into the Salinas River. The longest distance for water to run off to the Salinas River is 16.8 miles via Calera Canyon and El Toro Creek. The 100-year flood velocities on El Toro Creek range from 3.9 to 8.8 feet per second (Monterey County Water Resources Agency 2003). High infiltration rates and low precipitation levels result in little surface runoff. Most streams in the El Toro Creek subwatershed are intermittent, flowing less than 25% of the year. Much of the upper portion of the subwatershed is composed of steep slopes and narrow alluvium-filled valleys. The lowest portion of the subwatershed is the most highly urbanized. Large amounts of sediment and debris were deposited in the stream channel during the 1995 and 1998 floods, resulting in increased flooding on lower El Toro Creek (Monterey County Water Resources Agency 2003).

Water supply for the El Toro Creek subwatershed is derived entirely from groundwater, which is composed of the Corral de Tierra Area subbasin. The Corral de Tierra Area subbasin is a 22,300-acre area within the Salinas Valley groundwater basin, located in the eastern portion of the former Fort Ord and other unincorporated areas. Multiple water-bearing units include poorly consolidated marine sandstone and alluvial material along creeks (California Department of Water Resources 2004e).

The MCWRA has divided the El Toro Creek subwatershed into five planning areas: Corral de Tierra, El Toro Creek, San Benancio Gulch, Watson Creek, and Calera Creek. Groundwater levels in some portions of the El Toro Creek subwatershed have declined severely in recent years. Several groundwater studies have been conducted in El Toro Creek to determine the extent of groundwater depletion. A 2007 groundwater study concluded that additional

groundwater production may be feasible in the Upper Corral de Tierra Valley where the Basal Sand unit is a relatively productive aquifer (Geosyntec Consultants 2007). The remaining four subareas have poor groundwater potential. As such, the study recommends expansion of the County's restrictive B-8 zoning into these areas.

In addition to water quantity concerns, only a few areas in the region are connected to sewer systems; consequently, most parcels use septic systems for wastewater disposal. This has exacerbated the poor groundwater quality in the El Toro Creek watershed by contributing to nitrate contamination. Additionally, groundwater pumped from the El Toro Creek watershed generally contains arsenic at concentrations exceeding primary drinking water standards.

### **Seaside Area Groundwater Subbasin**

The Seaside Area groundwater basin contains 25,900 acres within the coastal communities of Seaside and Marina, as well as the western portion of the former Fort Ord. The overall Seaside groundwater basin supplies the Laguna Seca Water Company, the Bishop Water Company, the Carmel Valley Mutual Water Company, and the Laguna Seca Golf Course (all currently operated by the California-American Water Company [Cal-Am]); the Society for the Prevention of Cruelty to Animals, the County park, and various unincorporated and incorporated areas.

No major surface water features are located within the basin. Ultimately draining to the Salinas River to the north, the Seaside Area groundwater basin is composed of a number of smaller subbasins. Multiple water-bearing units in the Seaside basin include poorly consolidated marine sandstone and dune sand deposits. Groundwater recharge is from deep percolation of local precipitation, subsurface inflow from the Corral de Tierra Area subbasin to the east, and seepage of minor amounts from creeks (California Department of Water Resources 2004f).

The Laguna Seca planning area is a 4,320-acre portion of the Seaside Area groundwater basin that parallels SR 68. Almost all groundwater production is from the Santa Margarita aquifer in the eastern half of the planning area. Water levels in that aquifer have been chronically declining (Monterey Peninsula Water Management District 2005b). The Seaside Area and El Toro Creek groundwater subbasins are hydrogeologically contiguous in the area along SR 68, which has suffered the greatest declines in groundwater levels.

Cal-Am presently operates eight wells in the Seaside Area groundwater basin, and ten wells currently are operated by non-Cal-Am entities. Groundwater conditions in the Seaside Area basin have deteriorated in the past decade. Groundwater extraction near the coast increased markedly beginning in 1995, resulting in declining water levels and depletion of groundwater storage. Storage depletion of an aquifer occurs when groundwater extraction exceeds groundwater recharge, which leads to the decline in the groundwater volume held in storage.

During 2006, a total of 13,400 acre-feet was reported produced in wells from the Seaside aquifer, including 3,710 acre-feet by Cal-Am and 1,296 acre-feet by other parties (MPWMD 2006).

In recent years, California State Water Resources Control Board (SWRCB) regulation has limited available surface water supplies from the Carmel River, such that new water supply sources must be developed before additional regional growth can be supported (California Department of Water Resources 2005). The State Water Board has limited diversion from the Carmel River in order to protect fish habitat. As a result, Cal-Am has increased pumping from the Seaside Area groundwater subbasin, exceeding the sustainable yield (refer to the groundwater adjudication discussion under Section 4.3.2.5 below). The following projects are underway to relieve pressure on the Seaside groundwater basin.

- Cal-Am and MPWMD's Seaside Basin Aquifer Storage Recovery (ASR) project is described in detail in Section 4.3.2.5 ("Carmel River Watershed").
- Cal-Am's Coastal Water project proposed a desalination plant at the Moss Landing Power Plant (MLPP) that will supply about 11,730 AFY to allow Cal-Am to meet the SWRCB's order to reduce its reliance on the Carmel River. It is under consideration by the California Public Utilities Commission.
- The Marina Coast Water District (MCWD) has built a new water desalination plant that has a peak capacity of 300,000 gallons per day when in operation (Marina Coast Water District 2008).
- The MPWMD currently is evaluating the feasibility of a desalination plant in Sand City, which would take 15 million gallons per day (mgd) of saline groundwater from the coastal beachfront and produce 7.5 mgd of potable water (Monterey Peninsula Water Management District 2004).

## **Carmel River Watershed**

Unlike the Salinas River, the Carmel River flows in a well-defined channel for much of its 36-mile length. Most of the river's watershed (approximately 65%) is upstream of the confluence with its major tributary, Tularcitos Creek (Exhibit 4.3.4). Downstream of the Tularcitos Creek confluence (at about 15 river miles, measured from the river's mouth), the channel widens from 20 to 150 feet. Alluvial deposits that comprise a groundwater basin underlie this downstream reach of the channel.

The Carmel River drains a 255-square-mile watershed. Average annual runoff (from 1962 to 2006) is 78,190 acre-feet (Monterey Peninsula Water Management District 2007). Its larger tributaries include Garzas Creek, San Clemente Creek, Tularcitos Creek (with its tributaries, Choppiness and Rana Creeks), Pine Creek, Danish Creek, Cachagua Creek, and the Miller Fork. The Carmel River originates in the Santa Lucia Mountains, with headwaters at 4,500- to 5,000-foot elevations. The upper reaches flow northwesterly, generally following the trend

of the fault block structure of the Coast Ranges, to a confluence with Tularcitos Creek. From this point, the lower reach flows in a more westerly direction through the Carmel Valley and into the Pacific Ocean at Carmel Bay, just south of the City of Carmel-by-the-Sea (Monterey County Water Resources Agency 2003).

The average gradient of the upper reach from the source to the confluence with Tularcitos Creek is about 320 feet per mile, and the stream is actively eroding its bed. Valley trenching is particularly evident in the Tularcitos Creek and Cachagua Creek subwatersheds. The average gradient of the lower reach through the Carmel Valley is only about 40 feet per mile. In portions of the downstream reach, the valley is braided with discordant channels, and evidence exists that the river has meandered considerably over the floodplain in the recent geological past (Monterey County Water Resources Agency 2003).

Before European settlement, the Carmel River was in a state of dynamic equilibrium. Periodically, extremely large floods deposited large quantities of sediment in the river's lower reaches. In succeeding years, the river would gradually cut down into the sediments, forming an incised, meandering channel until a large flood again altered the channel. This natural cycle of disturbance on the Carmel River has been altered by human activities.

River flows in 1995 were among the highest recorded on the Carmel River in the past 60 years. In March 1995, a 30- to 50-year flood event occurred in the Carmel River watershed, and many low-lying areas were flooded. Commercial properties and hundreds of homes were inundated at the mouth of the Carmel Valley and in residential neighborhoods in Mission Fields, Hacienda Carmel, Valley Greens, Robles del Rio, and Camp Steffani. Floodplain areas along Cachagua Creek also were submerged by several feet of water. The March 1995 flood caused the SR 1 bridge and several private bridges to collapse, and also resulted in damage to wells (Monterey County Water Resources Agency 2003).

Following the high flows in 1995, many private property owners and several public agencies completed repair projects related to flood control and streambank stabilization. At the mouth of the Carmel Valley, a multiagency habitat enhancement and flood control project was initiated. To reduce flood hazards in Mission Fields and implement components of both the lagoon enhancement plan and the Lower Carmel Valley Flood Control Project proposed by the MCWRA, short segments of the protective levee were removed along the south side of the river. Farther upstream, the United States Army Corps of Engineers (USACE) issued a regional emergency permit to the MCWRA for several streambank repair projects along 15 miles of the lower Carmel River. In conjunction with the MCWRA, the MPWMD issued river work permits to rebuild banks to pre-flood conditions, including the addition of native willows and structural protection from riprap, gabion baskets, concrete cubes, and rubble. The Natural Resources Conservation Service (NRCS) funded streambank repair projects.

In February 1998, streamflows in the Carmel River were again very high. The river flooded low-lying areas and caused substantial bank erosion. Although



some areas repaired after the 1995 floods maintained their integrity, others were severely eroded again. Bank repair and property restoration began again in 1998 under a regional general permit issued by the USACE.

Only a small amount (40 acre-feet) of surface water diversion by a non-Cal-Am party from the Carmel River was reported by MPWMD (Monterey Peninsula Water Management District 2006).

An additional water supply issue in Carmel Valley is the potential unquantified impacts of increased use and demand by riparian users along the Carmel River. No action by the SWRCB or the courts has evaluated the cumulative impacts on the public trust resources by individual well owners since the time of the MPWMD Water Allocation Program EIR (Monterey Peninsula Water Management District 1990). As the allocated water has been exhausted, an increase in claims of riparian rights has been observed. It is unclear whether these claims represent an increased demand on the water resource system and whether environmental impacts are associated with the potential increased demand.

### **San Clemente Reservoir**

The San Clemente Dam, constructed in 1921, is a concrete arch dam with a 300-foot crest, 106 feet above the bedrock and 65 feet above the streambed. The dam was constructed and is operated by Cal-Am to supply water for the growing needs of the Monterey Peninsula. The storage capacity has decreased dramatically from the original 2,260 acre-feet to 150 acre-feet. As a result of an order from the Division of Dam Safety to draw down water levels in order to avoid potential dam failure, the reservoir no longer provides water to the system. (Monterey County Water Resources Agency 2007).

### **Los Padres Reservoir**

The Los Padres Dam was built in 1949 by Cal-Am, 6 miles upstream from the San Clemente Dam, to augment the water supply. This dam is a rock- and earth-filled dam with an overall crest measurement of 680 feet. There is a concrete spillway to allow excess water to exit the reservoir. The normal outflow is controlled by a system of pipes and valves during the rainy season. The lake extends 2 miles into wooded backcountry with an original storage capacity of 3,000 acre-feet that has dwindled to 1,500 acre-feet due to sedimentation (Monterey County Water Resources Agency 2003).

### **Groundwater**

The Carmel River groundwater basin lies along the downstream portion of the Carmel River (Exhibit 4.3.5). Covering approximately 5,160 acres, the groundwater basin consists of younger alluvium and river deposits and older alluvium and terrace deposits. The primary water-bearing formation is the younger alluvium, with a typical thickness of 50 to 100 feet (California Department of Water Resources 2004g).

The Carmel River is the primary source of recharge, constituting 85% of the net recharge. With the presence of surface water, groundwater levels recover

rapidly. After water level recovery, levels range from 5 to 30 feet below the land surface. During normal years, water level fluctuations range from 5 to 15 feet while experiencing declines of up to 50 feet below land surface during droughts (California Department of Water Resources 2004g). The level of groundwater in the aquifer is influenced by pumping from wells operated by Cal-Am, as well as by evapotranspiration of riparian vegetation, seasonal infiltration, and subsurface inflows and outflows. Cal-Am is the primary urban water supplier to about 100,000 residents on the Monterey Peninsula area. In 2006, Calm obtained about 75% of its water from wells in the Carmel Valley basin. The remaining 25% is supplied from wells in Seaside Area basin aquifer (22%) and the Laguna Seca subarea (Monterey Peninsula Water Management District 2006).

During the dry season, pumping of wells has caused significant declines in the groundwater levels of the Carmel River groundwater basin. Because streamflow and groundwater supplies are directly linked, lowered groundwater levels diminish surface flows in the river. During normal water years, surface flow in the lower Carmel Valley becomes discontinuous or nonexistent in summer and fall. This condition has been cited as causing adverse impacts on native fish populations (most notably the central coast steelhead) and riparian habitat in the lower reaches of the river's course.

During 2006, a total of 13,400 acre-feet was reported produced in wells from the Carmel Valley aquifer, including 10,954 acre-feet by Cal-Am and 2,435 acre-feet by other parties (Monterey Peninsula Water Management District 2006).

As described above, SWRCB regulation has limited diversion from the Carmel River and thereby affected the rate of pumping from the Seaside Area groundwater basin (refer to the groundwater adjudication discussion under Section 4.3.2.5 below). As a result of the need to meet the water demand of the Monterey Peninsula without overusing either the Carmel River or the groundwater basin, the following projects are underway or proposed.

- Cal-Am's Coast Water Project, including a pilot desalination facility at the MLPP.
- Cal-Am and MPWMD's Seaside Basin ASR Project, which involves diverting excess winter flows from the Carmel River for injection into the Seaside aquifer.
- MPWMD currently is evaluating the feasibility of a desalination plant in Sand City, which would take 15 mgd of saline groundwater from the coastal beachfront and produce 7.5 mgd of potable water (Monterey Peninsula Water Management District 2004).

## **North County Watersheds**

The North County watersheds lie between the Salinas River and Pajaro River watersheds, straddling a watershed divide that is not topographically well

defined, and includes the Elkhorn Slough watershed (Exhibit 4.3.6). Elkhorn Slough receives drainage from most of the area.

The Elkhorn Slough drainage and its major tributary, Carneros Creek, extend beyond the county's eastern boundary into San Benito County. The central portion of the watershed includes the Elkhorn Highlands, a hilly upland area transected by several smaller valleys—all of which drain into the slough. North of Elkhorn Slough, and tributary to Elkhorn Slough, is McClosky Slough. To the south, Moro Cojo Slough, which is larger than McClosky Slough, drains a large subarea. Its brackish waters drain northward into the Elkhorn Slough near its entry to Monterey Bay. This complex system of estuaries and uplands combines to create a regionally significant constellation of diverse habitats (see Section 4.9, Biological Resources).

The major water feature north of the Elkhorn Slough watershed is the Pajaro River. Although the Pajaro River enters Monterey Bay at the tip of northern Monterey County where it forms the boundary with Santa Cruz County, most of its large watershed extends into Santa Cruz, Santa Clara, and San Benito Counties. The Pajaro River drains an area of about 1,187 square miles, with headwaters in the Gabilan and Diablo Mountains. Near its mouth at Monterey Bay, the river flows through Watsonville, Harkins, Struve, and McClosky Sloughs in Santa Cruz County. Annual streamflow as recorded at the Chittenden gauging station averaged 124,640 AFY (Pajaro Valley Water Management Agency 2001).

The Special Flood Hazard Area (SFHA) of the Pajaro River affects several hundred acres on both sides of the river channel. Much of this area is farmland, and the community of Pajaro is located entirely within the SFHA. In recent years, flood events have caused tens of millions of dollars in property damage, displaced thousands of persons, and damaged significant riparian and aquatic habitat. In 2002, a Phase 1 report for the Pajaro River Watershed Study was completed to model the hydrologic and sediment regimes in the Pajaro River watershed in order to identify flood control measures (Pajaro River Watershed Flood Prevention Agency 2002). Existing land uses within the flood zone remain at risk until flood control improvements are made. Future growth in the Pajaro community would increase the exposure of persons and property to flood hazards.

Significant constraints affect water quality and quantity in North County. Only a few areas in the region are connected to sewer systems; consequently, most parcels use onsite septic systems for wastewater disposal. This has exacerbated the poor water quality in North County by contributing to nitrate contamination. Subdivisions and second units are prohibited in a portion of Prunedale (B-8 zoning overlay over portions of the Granite Ridge and Highlands South areas) due to nitrate contamination and limited water availability.

### **Groundwater**

Groundwater in the North County can be divided into five planning areas with varying hydrogeologic and water use characteristics: the Pajaro, Springfield

Terrace, and Highlands North planning areas are managed by PVWMA; and the Highlands South and Granite Ridge planning areas are managed by MCWRA (Exhibit 4.3.7). The Highlands North and South areas reflect the jurisdictional boundary between the PVWMA and the MCWRA. This jurisdictional boundary is based on hydrogeology because relatively impermeable mud fills a deep valley underlying Elkhorn Slough and acts as a barrier to groundwater movement between the Salinas and Pajaro Valleys. Local recharge in the area may flow into either the Pajaro Valley groundwater basin or the Salinas Valley groundwater basin.

The Granite Ridge community has experienced problems with water quality and supply. The Granite Ridge area is characterized by fractured granite in lieu of the alluvial soils that make up the Salinas groundwater basin. The County of Monterey and the County Water Resources Agency are assessing potential solutions including new delivery infrastructure and financing options. Other agencies are also assessing the situation, including the Pajaro Sunny Mesa Community Services District and the Pajaro Valley Water Management Agency.

A small portion of the 76,800-acre Pajaro Valley groundwater basin, composed of unconsolidated terrace deposits, is located within Monterey County. The primary sources of recharge to the Pajaro Valley groundwater basin are infiltration of rainfall, seepage of streamflow from the Pajaro River and its tributaries, and percolation of irrigation water. Groundwater supply in North County is limited, however, by a combination of natural conditions, including relatively small aquifers, limited recharge potential, and impermeable layers between subareas.

As documented in numerous groundwater studies conducted over the past 55 years, the Pajaro Valley groundwater basin is in an overdraft condition (Pajaro Valley Water Management Agency 2002). In historic time, artesian conditions existed at the coast (meaning that groundwater levels were high enough in past years that groundwater surfaced in some of the coastal areas). By the 1940s, however, following the major development of groundwater resources to support the agricultural industry, some wells were still artesian but only during winter months. By the 1970s, water levels west of Watsonville were consistently below sea level from approximately May to December, lending the conditions necessary for the occurrence of seawater intrusion (Pajaro Valley Water Management Agency 2002).

The area is used primarily for growing strawberries, a crop that typically requires high levels of irrigation and nitrogen-based fertilizers but that also compromises the aquifer with high nitrate concentrations and saltwater intrusion—especially in the Pajaro and Springfield Terrace planning areas. Nitrate contamination is a major concern in drinking water sources in the Pajaro Valley groundwater basin (Pajaro Valley Water Management Agency 2002).

## Other Watersheds

### Estrella Watershed

The Estrella River is a main tributary of the Upper Salinas River, located in northeast San Luis Obispo County and the southeast corner of Monterey County. The watershed is bounded by mountain ranges and low hills, including the Cholame Hills, Diablo Range, Temblor Range, and La Panza Range. Soils ranging from silty clays to coarse sandy loams are derived from weathered sandstone and shale and alluvium. The landscape is influenced by movement along the San Andreas Fault, which runs through the Cholame Valley and the town of Parkfield.

Land in the watershed is used predominantly for agricultural production, including dryland range, production of dryland grain and hay, and irrigated vineyards and orchards. Land is predominantly privately owned, numbering approximately 600 farms and ranches in the watershed.

The Cholame Valley groundwater basin is a 39,800-acre watershed located partially within Monterey County. The basin is comprised of Quaternary alluvium and drains toward the Salinas Valley.

### Big Sur Coast Watershed

The Big Sur Coast watershed includes the 61-square-mile drainage area of the Big Sur River, on the coastal side of the Santa Lucia Mountains. Water from the upper basin is funneled through the Big Sur Gorge in the eastern portion of Pfeiffer Big Sur State Park and enters the 12.5-square-mile Lower Big Sur River basin. The lower basin includes approximately 8,000 acres on the west slope of the Santa Lucia Mountains. The river flows in a northerly direction through the Big Sur Valley, 7.6 miles to the mouth in Andrew Molera State Park. Pfeiffer Ridge separates the Big Sur Valley from Sycamore Canyon and the ocean to the west. Major tributaries include Pfeiffer-Redwood, Juan Higuera, and Pheneger Creeks. The Post Creek drainage defines the southern limit of the basin, which is bounded on the east by Pine Ridge. At the north end of the valley, the Lower Big Sur River again has an extensive floodplain and forms a lagoon as it nears its mouth.

The average annual runoff of the Big Sur River is 64,900 AFY based on United States Geological Survey (USGS) stream gauge records, with peak flows in January (Monterey County Water Resources Agency 2003). The *Big Sur River Protected Waterway Management Plan* (Monterey County et al. 1983) states that there are no significant water storage facilities within the basin, and water is supplied by shallow wells or stream diversions from the major tributaries. Septic tanks near the river (including the state park) are a concern for water quality.

In October 2006, the Monterey Bay National Marine Sanctuary (MBNMS) released a comprehensive watershed management and ecosystem plan, the *Big Sur Coastal Ecosystem Action Plan*, as part of the MBNMS draft management plan (Monterey Bay National Marine Sanctuary 2006). The Joint Management Plan Review is a multiagency task force convened to prepare a series of

management plans. The task force includes MBNMS; the Bureau of Land Management (BLM); the California Coastal Commission; California State Parks; the California Department of Transportation (Caltrans); the County; and the U.S. Forest Service, Los Padres National Forest.

### 4.3.2.3 Water Quality

Land use and water resources are unequivocally linked. A variety of natural and human factors can affect the quality and use of streams, lakes, and rivers. The type and intensity of land use developed within a region will have a strong influence on receiving water resources.

Pollution sources that affect surface water may be separated into two categories: point and nonpoint sources. Point sources include sewage treatment plants, industrial discharges, or any other type of discharge from a specific location (commonly a pipe) into a stream or water body. By contrast, nonpoint sources—which include runoff from lawns, roads, or fields—are diffuse sources of contaminants that are not as easily identified or measured as point sources. Typically, the contaminant concentration from nonpoint sources will increase as flow increases during storm runoff; conversely, concentrations from point sources generally decrease through dilution during storm runoff. The type and severity of these pollution sources often are directly related to human activity, which can be quantified in terms of the intensity and type of land use and the associated densities of humans and livestock in source-water areas.

Poor water quality can adversely affect natural resources, including aquatic, coastal, terrestrial, and marine ecosystems. Point and nonpoint source pollution can cause destruction or physical alteration of vegetation and degraded water quality (levels, clarity, and temperature), resulting in reduced diversity and abundance of aquatic and riparian organisms (California Coastal Conservancy 2006). Section 4.3.3, Regulatory Framework has a discussion of water quality regulations and a list of impaired water bodies within the county.

#### Urban Runoff

Urban areas can contain up to 90% hard surfaces, such as rooftops and pavement, where water collects and quickly runs off. As water passes over hard, impermeable surfaces in the watershed, it can pick up a variety of potential pollutants—such as fertilizers and pesticides (used for landscaping), sediments, construction chemicals (oils and grease, paint, and solvents), nutrients, toxic chemicals (for industrial uses), and pathogens—which can be transported to the region's rivers, wetlands, and harbors. Urban runoff, often called “stormwater pollution,” is difficult to prevent because this nonpoint source pollution is spread throughout the watershed. Any deposits of natural (sediment) and human-made pollutants (e.g., oils, pesticides, and heavy metals) in these areas are flushed by rainwater, landscape irrigation, and other means down storm drains and directly into streams, rivers, or Monterey Bay. This problem becomes worse with

population growth and urbanization because such activities alter natural hydrologic processes.

### **Salinas River Watershed**

Urban runoff has the potential to directly affect Salinas River waters. Urban runoff transported by the river also affects water quality in Monterey Bay. Water quality in urban runoff is not currently monitored except in the city of Salinas as part of National Pollutant Discharge Elimination System (NPDES) Phase I requirements. See the discussion of the NPDES program under “Clean Water Act” below.

### **Carmel River Watershed**

Relatively little urbanization has occurred in the Carmel River basin. However, because most of the urban uses are close to the river, they present the potential for direct impacts on surface water quality.

### **North County Watersheds**

There is relatively little urban land use in the North County. Urban runoff sources are limited to the areas of commercial development and small communities at Moss Landing, Castroville, Pajaro, and Prunedale. However, because of their proximity to water bodies throughout the North County area, such as the Pajaro River, Elkhorn Slough, and creeks and sloughs tributary to Elkhorn Slough drainage system, these limited urban uses have the potential to generate significant adverse water quality impacts.

## **Groundwater Quality**

Groundwater is an important water resource in Monterey County. Groundwater recharge is commonly concentrated along undeveloped river channels or beneath lakes/reservoirs where water is able to seep through relatively permeable sediments on the bed. Groundwater basins are horizontally divided into aquifers, which are composed of the most permeable strata. This may be porous sandstone, coarse sandy or gravel alluvial deposits, or fractured rock. Such layers often form aquicludes, or barriers to flow that divide aquifers. In Monterey County, it is not uncommon for wells to penetrate several different aquifers at discrete intervals. Typically, the uppermost aquifer is unconfined by a layer above, while deeper aquifers are more likely to be confined and under pressure. Groundwater flow is strongly tied to the underlying geologic structure, including the pattern of folding and faulting.

Groundwater is tied to the hydrologic cycle, since recharge comes from seepage of surface water through lakes, rivers, and overland flow. However, groundwater basins typically have a much larger volume than surface water reservoirs. They are capable of storing large quantities of water developed through infiltration and seepage of water over a very long time, where storage volume is not lost to the transient effects of runoff and evaporation. Depletion is mainly through diversion of surface water and pumping.

Overall groundwater quality throughout Monterey County is generally considered excellent to good. However, localized water quality problems exist from seawater intrusion and nitrate contamination, most prevalent in agricultural areas. Nitrate contamination levels have been increasing over time. This problem has had a significant local impact on domestic water supplies in the Salinas Valley and North County areas. Each year, the California Department of Food and Agriculture conducts a sampling of agricultural wells throughout the county, and to date it has not reported any problems with synthetic organic pesticide contamination of wells, such as those affecting other agricultural areas of California.

Other problems similar to those found in many communities throughout the state include urban runoff and leaking of underground tanks. These problems have resulted in very limited impacts on supplies of drinking water. Leaks from Underground Storage Tanks (USTs) or Leaking Underground Fuel Tanks (LUFTs) often are cleaned up on an individual site basis per the County's Environmental Health Division or other local regulatory jurisdiction, with oversight by and in compliance with guidelines of the Central Coast Regional Water Quality Control Board (RWQCB). There are also some larger comprehensive cleanup efforts, such as the groundwater contamination cleanup operations at the former Fort Ord Army Base.

The five most prominent water quality problems affecting water basins in Monterey County are: erosion and sedimentation, pollutants in urban runoff, nitrate contamination, salinity/chloride ions resulting from seawater intrusion, and inorganic and secondary constituents.

### **Erosion and Sedimentation**

Erosion problems are widespread in Monterey County, partly because of the erosive nature of local soils. Erosion results from natural conditions and land use practices. The four common causes of excessive erosion and sedimentation in the county are listed below.

- Farming on steep slopes and erosive soils can lead to soil erosion problems. Growing strawberries on the sandy, erosive, hilly soils of the North County and Elkhorn Slough areas has resulted in erosion problems that are currently being addressed.
- Dirt roads that have been graded on slopes without proper design or facilities to accommodate storm runoff are a common source of erosion. Heavy rain can erode slopes undercut for roads or erode the road surface, sending sediment downstream into creeks. Erosion often occurs where dirt roads cross intermittent creeks. Many of these dirt roads are located on private property in the county. Unmaintained or abandoned dirt roads are an especially severe source of erosion.
- Excess erosion occurs when the hydrology (and hydraulic characteristics) of a river or stream is altered (by water management practices and/or land uses upstream) to change the suspended sediment load in water as it flows through the channel. Water with diminished sediment load will erode banks and



channels, altering the channel bottom and destabilizing the stream or riverbank.

- Areas that have been denuded of vegetation by fire, overgrazing, or clearing are also subject to erosion. Grading prior to development without proper erosion control measures can cause erosion and downstream sedimentation, especially during the rainy season.

### **Salinas River Watershed**

Erosion and sedimentation problems in the Salinas Valley often are related to farming activities because of the dominance of intensive agriculture and its reliance on irrigation. Agricultural management practices are uneven throughout the Salinas Valley. Outreach and advisory programs conducted locally by the Resource Conservation District (RCD) and NRCS, to assist growers in controlling erosion, applying fertilizers and crop nutrients according to crop demand, and irrigating more efficiently and cost-effectively, have succeeded in greatly improved practices in many areas. Expansion of these programs would help reduce erosion and sedimentation impacts to an even greater degree.

In much of the Salinas Valley, particularly on the valley floor and alluvial fans where irrigated agriculture is dominant, the local hydrology has been converted to a conveyance system of straight, unlined ditches. The braided streams that drained the eastern slopes of the valley, for example, have been straightened and deepened into channels to allow cultivation of fields. These ditches convey water at a faster rate, resulting in unnaturally high rates of erosion upstream and higher rates of deposition downstream. Consequently, the ditches must be maintained repeatedly after every rainy season. In addition to the adverse environmental impacts, this self-perpetuating system of erosion/sedimentation and repeated maintenance incurs significant costs to farmers as well as to the County, which is burdened annually with clearing downstream roads and culverts of sediments.

### **Carmel River Watershed**

As in the Salinas Valley, the presence of agriculture in the Carmel River basin creates the potential for erosion and sedimentation from farming activities. Agriculture is much less extensive in the Carmel Valley than in the much larger Salinas Valley. The primary source of erosion is bank failure associated with flooding events and destabilization of riverbanks associated with land use activities along the river.

### **North County Watersheds**

North County has areas with significant erosion problems. In the interior hills of North County, soils and topography are conducive to erosion, especially where intensively cultivated strawberries are grown on sandy erosive soils on sloping lands and without proper attention to erosion control. In recent years, increased strawberry farming has resulted in intensive

cultivation on sloping terrain. Strawberries have a high demand for water, relative to most other crops grown in the county. Cultivation practices have led to high erosion/sedimentation rates, primarily in the Elkhorn Highlands and to a lesser extent in the Carneros Creek watershed. This problem not only incurs a significant loss of valuable topsoil, but also potentially affects freshwater wetlands and ponds in the upper reaches of Elkhorn Slough (which contain state and federally listed endangered amphibian species) and riparian habitats in lower Carneros Creek. The RCD is assisting farmers in addressing this problem.

### **Nitrate Contamination**

Nitrate contamination was not a widespread problem until the use of synthetic fertilizers became common shortly after World War II. Organic fertilizer (manure) used in the Salinas Valley before the 1950s provided its own source of organic carbon, which allowed ammonia sulfate and phosphorous in manures to convert to a harmless gas, organic nitrogen. Synthetic fertilizers, however, do not breakdown in this manner. Instead, the nitrogen in chemical fertilizers oxidizes into nitrate as it percolates down into the root zone. The resulting nitrate is an inert form, not subject to further chemical conversion. It remains in the soil or enters the groundwater with subsequent irrigation or is flushed into irrigation drainage ditches to join other nitrate-laden waters flowing toward creeks, rivers and estuaries, and eventually into Monterey Bay.

Nitrate is commonly measured in terms of concentration of nitrate ( $\text{NO}_3$ ) and concentration as nitrogen (N). The state and federal Maximum Contaminant Level (MCL) for  $\text{NO}_3$  in drinking water is 45 milligrams per liter (Mg/l). This is also represented as 10 Mg/l for total N.

Nitrate contamination occurs commonly in unconfined and semiconfined aquifers that underlie areas of intense agricultural activity, where excess applied fertilizer can migrate to the groundwater body by leaching from the soil or by deep percolation from surface water bodies fed by agricultural runoff. The widespread use of nitrogen-based fertilizers in the intensive, high-productivity irrigation agriculture of vegetable and truck crops practiced in the Salinas Valley has greatly accelerated in the past 20 to 50 years. However, a cooperative effort between the MCWRA and the USGS has found that nitrates are present in the Salinas Valley basin in concentrations generally below the MCL threshold (U.S. Geological Survey 2005).

Elevated nitrate levels also exist near septic systems and wastewater treatment plants, which contain high nitrogen concentrations in their effluent. The most common cause of septic system failure is inadequate maintenance or degradation of an aging system. Systems also can fail to function if they are sited in conditions that are adverse to infiltration and dispersal of effluents, such as areas of thin soil, steep slopes, or high groundwater, or where too many systems are sited too close together. In addition, septic systems are a contaminant source even when they function properly. Residences that obtain their water supplies from shallow domestic wells often also use septic systems with associated leach fields, thereby increasing their risk factor for nitrate contamination of their

drinking water supply. Another source of nitrate contamination is sewage treatment ponds located in flood zones, such as those in the Salinas River basin. During periods of exceptionally high floods (such as the flows of 1995 and 1998), sewage from these ponds is conveyed in floodwaters and carried downstream. Under normal conditions, nitrate from these ponds also can percolate into the groundwater. Finally, waste from livestock is a common source of nitrate, especially in areas where they are kept in relatively high concentration such as dairy farms, feedlots, and horse stables.

There are two available technologies for removal of nitrate in groundwater: ion exchange and reverse osmosis. Both of these methods are very expensive, particularly if applied to groundwater basins the size of those in Monterey County. Filtration systems are available for individual users to treat water at the “point of use,” which is at the individual residence. But disposal of the effluent is a problem. The Central Coast RWQCB has placed restrictions on onsite disposal by individual users, and state and federal law prohibits the use of treatment systems by individual users served by regulated water systems (i.e., four connections or more). Treatment to remove nitrates and other contaminants remains very cost-prohibitive. For this reason, the common solution in most areas of the county is to drill a new and deeper well with a deep seal to prevent contaminated water from entering the perforations. All of the Salinas Valley water utilities, as well as many small water systems throughout the county, have implemented this solution. It is unknown how long this approach will be successful; in some areas, it may have the undesirable effect of drawing the nitrates deeper into the aquifer system.

Sufficient information is available, and initial steps have been taken, toward developing best management practices (BMPs) that would reduce the rate of nitrate contamination in the Salinas Valley basin (and other areas of the county). Nitrate contamination can be partially reduced by improved soil management and water conservation practices adopted by farmers. Achieving this level of mitigation almost certainly necessitates a basin-wide program to assist development of more cost-effective management practices, based on the already successful programs in North County and along Chualar Creek, in which local farmers and landowners partner with the RCD and NRCS. Even so, nitrate contamination will continue at significant rates as long as chemical fertilizers are used in irrigated agriculture.

### **Salinas River Watershed**

Nitrate contamination is present throughout the Salinas Valley basin in varying concentrations. The MCWRA has documented increasing trends of nitrate levels, and levels are anticipated to increase with time. All of the Salinas Valley cities have had to replace domestic water wells due to high nitrate levels that exceed the drinking water standard of 45 Mg/l established by state and federal standards. New wells typically are drilled to a depth of 1,000 feet or more and sealed to at least 450 feet.

The MCWRA reports that nitrate concentrations in the Salinas Valley are highest in the 180-foot aquifer. The 400-foot aquifer has low nitrate levels because the intervening clay layers prevent nitrates from percolating farther into the groundwater table (Monterey County Water Resources Agency 2001). Table 4.3-2 provides a summary of nitrate contamination in the Salinas Valley groundwater aquifers. In nearly 30% of wells sampled throughout the Salinas Valley, nitrate exceeds the 45-Mg/l MCL for drinking water (Exhibit 4.3.8). In some wells, nitrate has reached several hundred Mg/l. Groundwater in these areas of the valley is sufficiently high in nitrate to function as effective fertilizer without further chemical additives. These statistics strongly indicate that nitrate contamination has affected the upper aquifer layer throughout the Salinas Valley basin.

**Table 4.3-2.** Summary of Nitrate-NO<sub>3</sub> Concentrations for 367 Study Wells in the Salinas Valley Basin (1996)

Subarea	Number of Wells Sampled	Nitrate as NO <sub>3</sub> (mg/l)	Number of Wells Greater than DWS <sup>a</sup>	Percent of Wells Greater than DWS <sup>a</sup>
100-Foot/400-Foot Aquifer	200	22	23	12
East Side Aquifer	57	66	25	44
Forebay Aquifer	78	48	34	44
Upper Valley Aquifer	32	74	17	53
<b>Total Areas</b>	367	38	99	27

<sup>a</sup> DWS = Drinking water standard. The MCL for NO<sub>3</sub> in drinking water is 45 Mg/l.

Source: Monterey County Water Resources Agency 2001.

### **Carmel River Watershed**

In 1983, based on nitrate levels in groundwater identified in a study included in the *Carmel Valley Master Plan*, the County Board of Supervisors adopted a resolution that prohibits further subdivision of lots within four subbasins of the Carmel River. Currently, each property owner in the subbasins is restricted to development of one single-family dwelling (or equivalent). The County also adopted a threshold of 25 Mg/l as the standard for the limits of nitrate concentration in the basin. (Monterey County 2006)

The MPWMD has been monitoring nitrate levels at several wells in the alluvial aquifer of the Carmel River basin since 1981. Results indicate that nitrate levels are well within established standards, with no discernible trend of deteriorating water quality. Under normal conditions, the Carmel River basin flushes out each year when seasonal water levels are restored. This process usually prevents nitrate from accumulating in the basin. The relatively high nitrate levels identified in the four subbasins in 1982 may reflect episodic effects brought on by local conditions or drought. The MPWMD monitoring data suggest that the elevated levels within the four subbasins do not represent basinwide nitrate contamination similar to the

widespread contamination found in North County and the Salinas Valley basin.

### **North County Watersheds**

There are approximately 680 small water systems in North County. This includes all wells serving from 2 to 200 connections. Of these, 77 (about 11% of the total) currently exceed the 45-Mg/l nitrate standard.

Approximately 165 systems (about 23% of the total) have nitrate levels greater than half but not in excess of the standard (23–45 Mg/l) The remainder of the systems (about 66% of the total) have nitrate levels of from 0 to 22 mg/L (Monterey County Health Department 2008b).

### **Seawater Intrusion**

Seawater intrusion is the migration of ocean water inland into a freshwater aquifer. This condition occurs when a groundwater source (aquifer) loses pressure, allowing the interface between freshwater and seawater to move into the aquifer. Reducing pressure also can allow seawater to seep into the aquifer from estuaries such as Elkhorn Slough in north Monterey County. A common activity that induces intrusion is pumping of the groundwater basin faster than the aquifer can recharge.

Seawater intrusion is the primary source of salinity in coastal wells. Salinity refers to the salt content, or chloride level, of water. Chlorides in excess of 100 Mg/l produce a salty taste in drinking water. This 100-Mg/l chloride level is a threshold value for irrigation. Ionic constituents of water are important considerations for agricultural supply because of their impact on crops and soils. Increased chloride levels in irrigation water eventually force cropping changes in affected areas.

Although seawater intrusion can be halted by stabilizing groundwater levels and may be reversed to some degree, it may not be possible to restore the seawater/freshwater interface completely to its pre-intrusion location. The difficulty is being able to sufficiently reduce the pressure of a larger body of water (the ocean) to push the line back. There are no documented instances of fully restoring groundwater basins to pre-intrusion conditions.

### **Salinas River Watershed**

Seawater intrusion occurs near the coast principally because extraction of fresh groundwater exceeds recharge in the northern part of the Salinas Valley. Any significant pumping of groundwater between Salinas and the coast causes seawater intrusion. The MCWRA formulated long-term plans to construct and operate facilities to alleviate the seawater intrusion problem with implementation of the *Salinas River Basin Management Plan*.

Seawater intrusion has affected the coastal portion of the 180-Foot/400-Foot Subarea of the Salinas Valley basin since at least the 1940s. Seawater has contaminated two of the three primary producing aquifers in the coastal part

of the Salinas Valley basin, the 180- and 400-foot aquifers. The MCWRA uses the California Safe Drinking Water Act, Secondary Drinking Water Standard, upper limit of 500 Mg/l for chloride as a measurement of impairment of water and, subsequently, as the basis for determining the seawater intrusion front. By 1999, seawater was estimated to affect as much as 24,019 acres overlying the 180-foot aquifer (Exhibit 4.3.9) in the northern Salinas Valley and 10,504 acres overlying the 400-foot aquifer (Exhibit 4.3.10) (Monterey County Water Resources Agency 2001). Table 4.3-3 depicts the magnitude of this problem over time.

**Table 4.3-3. Estimated Acreage Overlying Seawater Intrusion**

Year	180-Foot Aquifer		400-Foot Aquifer	
	Acres Advanced from Last Date	Total Acres	Acres Advanced from Last Date	Total Acres
1944	1,833	1,833	No data	No data
1959	No data	1,833	22	22
1965	5,839	7,672	No data	22
1975	3,973	11,645	3,695	3,717
1985	4,576	16,221	3,804	7,521
1990	No data	16,221	826	8,347
1993	3,596	19,817	311	8,658
1995	No observed change	19,817	407	9,065
1997	1,802	21,619	896	9,961
1999	2,400	24,019	543	10,504

Source: Monterey County Water Resources Agency 2001.

The intrusion of seawater has forced all water supply wells in the affected area of the 180-foot aquifer to be re-drilled into the 400-foot aquifer. Additionally, in those areas where the 400-foot aquifer also suffers from seawater intrusion, the Deep Zone aquifer has become a major source of water (Marina Coast Water District 2005). The water of this aquifer is up to 30,000 years old. However, because of the prehistoric origin of this water, withdrawal from the Deep Zone is a non-sustainable activity and is the effective equivalent of “mining” water.

### **Carmel River Watershed**

According to the 1998 SEIR for the Carmel River Dam and Reservoir Project (Jones & Stokes Associates, Inc 1998), monitoring wells near the coast indicate that a mixing zone of fresh- and seawater exists at the mouth of the valley near the Carmel River State Beach, but no seawater intrusion into the freshwater aquifer has been recorded.

Monitoring results in the nearby Seaside groundwater basin indicate that it does not have substantial seawater intrusion problems. (Monterey Peninsula Water Management District 2007)

### **North County Watersheds**

The North County groundwater subbasins are shown in Exhibit 4.3.8. Elevated chloride concentrations caused by seawater intrusion have been measured in the Springfield Terrace Subarea and areas adjacent to Elkhorn Slough (Exhibit 4.3.11).

Prior to 1909, Elkhorn Slough was a fresh-to-brackish water estuary that discharged to the Salinas River. At that time, the Salinas River shared a common mouth with the Pajaro River. After 1909, the slough became a closed estuary that seasonally breached the beach, discharging to the Pacific Ocean. In 1947, the USACE created Moss Landing Harbor and initiated dredging operations to keep the harbor mouth open. Since then, Elkhorn Slough has been subject to tidal surge and the mixing of freshwater and seawater. In the slough, saline water, as surface water, overlies aquifers containing fresh groundwater. Because seawater is denser than freshwater and the current water levels are below sea level within the underlying aquifers, seawater within the slough moves vertically downward into the underlying aquifers. Although this is not seawater intrusion in the conventional sense (horizontal movement of seawater through the aquifer from offshore outcrops), it degrades fresh groundwater in areas below and adjacent to the slough.

Thus, while over-pumping in North County has undoubtedly induced lateral intrusion in local aquifers, human activities have engineered changes to the salinity of the slough's waters; these changes have affected the salinity of groundwater that underlies the slough.

### **Inorganic and Secondary Constituents**

Inorganic and secondary constituents refer to the presence in potable water of certain nonorganic compounds regulated by the State Drinking Water Act (SDWA), such as nitrates, iron, and certain other metallic and semimetallic compounds. Primary standards regulate the levels of constituents in water that affect public health, such as nitrate (discussed above) and heavy metals, while secondary standards affect the aesthetics of drinking water, such as taste, color, and odor problems. For instance, at moderate levels, iron can cause water discoloration but may not cause health problems.

Such contaminants either would be introduced into the groundwater by human activities, such as farming, industrial activities, and onsite septic systems, or can be naturally occurring and associated with geologic conditions in aquifers, such as high levels of iron. There is also concern that hazardous substance contamination detected at the former Fort Ord might adversely affect the quality of groundwater extracted from the Salinas Valley groundwater basin (Marina Coast Water District 2005).

High levels of arsenic that approach and exceed SDWA levels occur naturally in certain hardrock or bedrock aquifer materials in parts of Monterey County, especially in parts of the North County and along the SR 168 corridor. This is of concern as long-term exposure to low levels of arsenic can cause multiple human health conditions and even increased risk of cancer. This problem is compounded by the fact that the Environmental Protection Agency (EPA) has recently lowered the arsenic standard for drinking water from 0.050 parts per million (50 parts per billion) to 10 parts per billion to protect consumers served by public water systems from the effects of long-term or chronic exposure to arsenic. Water systems, including those overseen by the County's Environmental Health Division, must comply with this standard as of January 23, 2006. Individual private and certain small water systems may not be able to achieve these standards—even with treatment—either administratively or technically.

### **Fort Ord**

The former Fort Ord was identified by the EPA as a National Priority List federal Superfund site on the basis of groundwater contamination discovered on the installation in 1990. The facility was listed “fenceline to fenceline,” all 28,000 acres. Investigations pinpointed 43 sites of concern, including motor pools, vehicle maintenance areas, dry cleaners, sewage treatment plants, firing ranges, fire drill burn pits, hazardous waste storage areas, and unregulated disposal areas (Marina Coast Water District 2005).

In June 2002, a low level of trichloroethylene (TCE), a cleaning solvent, was detected in one of the three water supply wells at the former Fort Ord. The contamination is coming from an abandoned landfill and a fire training pit that were used by the Army once but are closed now. The Army has responded to the landfill contamination problem by installing extensive groundwater cleanup systems to remove the contamination and prevent its further migration (Marina Coast Water District 2005).

## **4.3.2.4 Potable Water Supply and Infrastructure**

The available water supply is a consequence of natural conditions, including climate (precipitation and evaporation), soil permeability, topography, and hydrogeology (the capacity, location, and quality of aquifers), and management activities that function to enhance or redistribute the water supply. The long-term sustainability of water supplies requires major comprehensive management across jurisdictions, as well as planning for emergencies such as drought or disruption of infrastructure.

Management actions are also important in maintaining water quality. Poor quality can render available water unusable. The supply available for human uses is also limited by the consumption requirements of natural ecosystems, both terrestrial and aquatic. Neither water demand nor water supply are constant values, but vary over time, depending for instance on rainfall—which affects runoff, reservoir storage, and groundwater recharge—and temperature—which affects irrigation needs. For management purposes, the long-term objective is to



ensure that these two variables are held in balance, and that demand does not exceed supply for a prolonged period.

There are a number of different agencies that manage water resources within Monterey County (Exhibit 4.3.12).

MCWRA is responsible for management of the water resources in Monterey County. However, in the Monterey Peninsula area, MPWMD has authority over local issues related to water supply. Together, MCWRA and MRWPCA oversee the Monterey Regional Water Recycling projects, which consist of a reclamation plant and a 45-mile distribution system known as the Castroville Seawater Intrusion Project (CSIP). MCWRA is undertaking the SVWP, which consists of changes to the upriver reservoir operations, modifications to the Nacimiento Dam, and installation of a rubber dam on the Salinas to increase summer flows and provide agricultural water to offset the use of groundwater.

The PVWMA has authority over water supply issues in the Pajaro River basin, which includes parts of both Monterey and Santa Cruz Counties. The Marina Coast Water District (MCWD) supplies water to the City of Marina and the former Fort Ord.

These agencies generally regulate private and public water suppliers in the unincorporated area. The major providers are Cal-Am in the Monterey Peninsula Area, California Water Service Company (Cal-Water) in the Salinas Area, and the Castroville and Pajaro/Sunny Mesa Water Districts in the North County area. The vast majority of supply is pumped from groundwater and is allocated for agricultural use.

## **Water Sources**

Monterey County derives a majority of its total water supply from groundwater storage. Groundwater is the primary source of water in the region, accounting for roughly 75% of the annual supply in 2000 (California Department of Water Resources 2005). Local and some imported surface water supplies make up the rest of the available water for this region. Major reservoirs are primarily used as a source of groundwater recharge supply. The two major groundwater basins in Monterey County are the Salinas Valley and the Carmel Valley basins (see Exhibits 4.3.3 and 4.3.5). Several smaller groundwater basins are located throughout the various watersheds (see Exhibit 4.3.7).

Most of these groundwater basins lie beneath thick alluvial deposits of the major rivers, marine terrace deposits, or other thick sedimentary deposits. Groundwater is recharged or replenished through gradual seepage and infiltration of surface water, especially during the wet season. Most recharge occurs where runoff is low due to permeable soils or fractured rock and where slopes are gradual enough to allow water to seep into the ground. Recharge is concentrated where there is sustained flow or a sufficient depth of water to allow for groundwater infiltration and downward seepage into the water table. Recharge also occurs in

any open or unpaved areas where the ground is saturated and water is not lost to evaporation, plant transpiration, consumption, or runoff. Because groundwater provides a majority of the water supply, the protection of this resource from contaminated surface water recharge and spills or leaks of contaminants below the ground, especially around wells, is vital. A significant amount of groundwater recharge is provided by the Pajaro, Salinas, and Carmel Rivers, and by the Arroyo Seco which flows into the Salinas River (California Department of Water Resources 2005). Recharge also occurs beneath surface water reservoirs, such as the San Clemente and Los Padres dams on the Carmel River, San Antonio Reservoir on the San Antonio River, and Nacimiento Dam on the Nacimiento River in San Luis Obispo County (California Department of Water Resources 2005).

As illustrated by the overdraft conditions, current demand exceeds supply in the major supply areas of the county, an issue also present at the time of the existing 1982 General Plan. Goals, objectives, and policies in that plan addressed the need to “promote adequate, replenishable water supplies of suitable quality; to eliminate groundwater overdrafting; and to implement a program to prevent further seawater intrusion by developing supplemental sources of water for North County.” These issues are the subject of exhaustive groundwater studies and basin groundwater management plans undertaken by the respective water management agencies and the County since the existing 1982 General Plan. While progress has been made by MCWRA, MPWMD, and PVWMA in halting the rate of groundwater level decline and seawater intrusion, these issues remain a significant challenge to sustainable growth based on the goal of a sustainable groundwater supply.

Groundwater management is complicated, especially in water basins where several hundred or more long-term historical users are pumping from a common groundwater system, as is the case in much of Monterey County. Issues of water supply are further complicated by a number of different water suppliers, obligations, contracts, and disputes over water rights. Following is a summary of water supply issues for the major groundwater basins and planning areas in the county. The major groundwater management authorities and water suppliers for each of the Community Areas are summarized in Table 4.3-4.

**Table 4.3-4.** Community Area Groundwater Basins and Water Suppliers

Community Area	Planning Area	Groundwater Basin	Management Authority	Water Supplier
Pajaro	North County	Pajaro Valley basin	PVWMA	Pajaro/Sunny Mesa Community Services District
Castroville	North County	Salinas Valley basin (180-Foot/400-Foot Subarea)	MCWRA	Castroville Water District
Boronda	Greater Salinas	Salinas Valley basin (180-Foot/400-Foot Subarea)	MCWRA	California Water Service Co., Salinas District
Chualar	Central Salinas	Salinas Valley basin (180-Foot/400-Foot Subarea)	MCWRA	Cal-Am Water Company, Monterey District
Fort Ord	Greater Monterey Peninsula	Salinas Valley basin (Seaside and Corral de Tierra Subareas)	WPWMD (and Fort Ord Reuse Authority) and MCWRA	Marina Coast Water District

Monterey County also has several major wastewater recycling and desalination efforts in progress or in action. The CSIP provides approximately 19,000 AFY of recycled water to replace coastal groundwater pumping for irrigating vegetables and fruit crops. PVWMA’s Watsonville Area Water Recycling Project and the associated Coastal Distribution System are similarly using recycled wastewater for injection into the aquifer and to replace groundwater supplies. The Carmel Area Wastewater District/Pebble Beach Community Services District Reclamation Project replaces approximately 700 acre-feet of potable water for golf courses and other open space in Pebble Beach with recycled water (Monterey Peninsula Water Management District 2007). MCWD has built a new water desalinization plant with a peak capacity of 300,000 gallons per day when in operation (Marina Coast Water District 2008).

Cal-Am has applied to the PUC for a desalination plant at Moss Landing with a proposed capacity of approximately 11,730 AFY. MPWMD is currently evaluating the feasibility of a desalination plant in Sand City, which would take 15 mgd of saline groundwater from the coastal beachfront and produce 7.5 mgd (23.02 AFY) of potable water (Monterey Peninsula Water Management District 2004).

The following sections provide a discussion of the potable water supply obtained through groundwater basins in each of the major watersheds in Monterey County. For a full description of each watershed’s characteristics, please refer to Section 4.3.2.2.

## Salinas Valley Groundwater Basin

Most of the proposed Community Areas and Rural Centers are located within the Salinas Valley groundwater basin. Community Areas proposed in the 2007 General Plan include Pajaro, Castroville, Boronda, Chualar, and Fort Ord. Rural Centers proposed in the 2007 General Plan include Bradley, Pleyto, Lockwood, San Ardo, Pine Canyon (King City), River Road, and San Lucas. One new Affordable Housing Overlay area will be established in the Salinas Valley watershed—Reservation Road/Hwy 68.

MCWRA is responsible for regulation and supply of groundwater within the Salinas Valley groundwater basin. The Salinas Valley groundwater basin provides water supply to properties in the Greater Salinas plan area, Central Salinas Valley plan area, and Greater Monterey Peninsula plan area. Groundwater subbasins that are hydrogeologically connected to the Salinas River supply water to the Toro and Cachagua plan areas. Incorporated cities that draw water from the basin include Marina, Salinas, Soledad, Gonzales, Greenfield, and King City. Major issues include chronic overdraft that has contributed to seawater intrusion in the north and nitrate contamination due to agricultural runoff.

According to the California Department of Water Resources (DWR), the Salinas Valley groundwater basin consists of one large hydrologic unit comprised of four subareas: Upper Valley Subarea, Forebay Subarea, 180-Foot/400-Foot Subarea, and East Side Subarea. These subareas consist of three main vertically divided aquifers: the 180-foot aquifer, the 400-foot aquifer, and the Deep Zone, which extends approximately 2,000 feet below land surface.

Total estimated water demand in the Salinas Valley, including agricultural and urban requirements, has averaged 507,000 AFY between 1995 and 2005. This includes well extraction data reported to MCWRA and an estimate of other unmeasured or unreported water extraction. Table 4.3-5 provides a summary of groundwater extraction within the MCWRA's service boundary from 1995 to 2005.

In 2005 (the most recent data available as of July 2008), MCWRA estimated total annual extraction from the Salinas Valley groundwater basin at 494,000 acre-feet, including 443,600 acre-feet of agricultural pumping (90% of total) and 50,500 acre-feet (10% of total) of urban pumping (Monterey County Water Resources Agency 2007). A majority of urban pumping supplied water to both unincorporated and incorporated areas around the population centers of Salinas, King City, Fort Ord, and Soledad (86%); 5% to the Former Fort Ord; 4% to MCWD; and 5% to Salinas Valley State Prison (Monterey County Water Resources Agency 2007).

**Table 4.3-5.** Salinas Valley Groundwater Basin Extraction Data, 1995–2005  
(acre-feet)

Year	Urban Pumping	Percent	Agricultural Pumping	Percent	Total
1995	41,884	8	462,628	92	504,512
1996	42,634	8	520,804	92	563,438
1997	46,238	8	551,900	92	598,138
1998	41,527	9	399,521	91	441,048
1999	40,559	8	464,008	92	504,567
2000	42,293	9	442,061	91	484,354
2001	37,693	9	403,583	91	441,276
2002	46,956	9	473,264	91	520,220
2003	50,472	10	450,864	90	501,336
2004	53,062	10	471,052	90	524,114
2005	50,479	10	443,567	90	494,046
<b>Average</b>	<b>44,891</b>		<b>462,114</b>		<b>507,004</b>

Sources: Monterey County Water Resources Agency 2008b.

MCWRA reports that in the 180-Foot/400-Foot Subarea north of Salinas, more than 90% of pumping occurs from the 400-foot aquifer, with 5% from the Deep Aquifer and a smaller fraction from the 180-foot aquifer. In areas south of Salinas, it is estimated that approximately 60% of groundwater pumping occurs from the 400-foot aquifer, while 40% occurs in the 180-foot aquifer (Monterey County Water Resources Agency 2001a). Seawater intrusion into the 100-Foot/400-Foot Subarea was occurring at an annual rate of approximately 14,000 AFY prior to initiation of operations of the MCRWP (particularly the CSIP). As the MCRWP became fully operational, the annual rate of seawater intrusion decreased to approximately 8,900 AFY (Monterey County Water Resources Agency 2001a); this rate of seawater intrusion is the most recent available and is being used as the baseline in this SEIR.

MCWRA indicates that without the SVWP and the associated development of additional water supplies to augment existing groundwater supplies, both existing and future water needs (year 2030 and buildout) would result in further basin overdraft and seawater intrusion. The technical background reports incorporated by reference into the *Draft Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project* (Monterey County Water Resources Agency 2001a) demonstrate that basin overdraft, if left unchanged, is estimated to produce approximately 10,300 AFY of seawater intrusion and 14,000 AFY of storage depletion in 2030.

Table 4.3-6 provides a comparison of the MCWRA’s baseline (1995) and projected future (2030) conditions assuming the SVWP is not in place. With full implementation of the SVWP (see discussion below), MCWRA estimates groundwater storage depletion will be substantially improved from their baseline conditions and will avoid additional overdraft. This projection is based on general population projections. Accordingly, it remains valid when a 2007 baseline is substituted.

**Table 4.3-6.** Estimated Existing and Future Water Conditions in the Salinas Valley Groundwater Basin (AFY)

Parameter	Baseline (1995) Conditions <sup>1</sup>	Projected Future (2030) Baseline Conditions <sup>1</sup>
Groundwater Pumping	463,000	443,000
<i>Urban</i>	45,000	85,000
<i>Agricultural</i>	418,000	358,000
Basin Overdraft (Does not include Seawater Intrusion) <sup>2</sup>	17,000	14,000
Seawater Intrusion <sup>3</sup>	8,900	10,300
Salinas River Outflow to Ocean	238,000	249,000

Notes:

- <sup>1</sup> Baseline (1995) and Future Baseline (2030) Conditions assume that deliveries from MCWRP are being made. Under 1995 conditions, approximately 13,300 AFY are delivered; under the 2030 conditions, 15,900 AFY are projected for delivery.
- <sup>2</sup> Basin overdraft is defined as the average annual rate of groundwater extraction over and above the total recharge to the groundwater basin.
- <sup>3</sup> Seawater intrusion is defined as the average annual rate of subsurface flow from the Monterey Bay into the 180-Foot and 400-Foot aquifers in the 100-Foot/400-Foot Subarea.

Source: Monterey County Water Resources Agency 2001a.

The quantity of water used by agriculture is a function of total irrigated acreage, crop types, and, to a lesser extent, irrigation efficiency. Due to market forces driving further irrigation efficiency and a historical change in cropping patterns from truck crops to vineyards in the southern Salinas Valley, as well as urbanization of former agricultural lands, MCWRA projects a decrease in annual groundwater pumping to 358,000 AFY by 2030. While yearly amounts vary, Table 4.3-6 illustrates a general downward trend in groundwater extraction for agricultural purposes. This expected decrease would be partially offset by a projected increase in urban water use from 45,000 to 85,000 AFY by 2030 (Monterey County Water Resources Agency 2001a).

Operation of the SVWP will divert an average of 9,700 AF and up to 12,800 AF of additional Salinas River water (available from reoperation of upstream reservoirs) to the CSIP during the peak irrigation season. This will provide a total yearly average of 12,000 AF and up to 25,000 AF to the CISP for injection into the groundwater aquifer (Monterey County Water Resources Agency 2003).

Modeling undertaken by the MCWRA for the SVWP indicates that by 2030 seawater intrusion will be reduced to 2,300 AF with surface water deliveries only to the CISP. However, if an additional 14,300 AF of SVWP water is delivered outside the CSIP, modeling indicates that seawater intrusion would be halted (Monterey County Water Resources Agency 2001a). The SVWP has been designed to meet the objectives of halting seawater intrusion and meeting water demands to 2030 through drought years through conjunctive use of surface and groundwater. Groundwater would be augmented during wet years from the SVWP, with greater reliance on surface water, and drawn upon in dry years, with less reliance on surface water. This would avoid seawater intrusion through droughts of historic length (Monterey County Water Resources Agency 2001a).

### **El Toro Creek Groundwater Sub-Basin**

El Toro Creek contributes surface flows to the Salinas River watershed and is treated separately for planning purposes relative to the area's groundwater resources. The groundwater basin provides potable water supply to the Toro planning area. No new Community Areas or Rural Centers are proposed in the El Toro Creek basin.

The El Toro Creek groundwater basin is recharged from the surface watershed of El Toro Creek. MCWRA has divided the El Toro Creek basin into five planning areas: Corral de Tierra, El Toro Creek, San Benancio Gulch, Watson Creek, and Calera Creek. Groundwater levels in some portions of the El Toro Creek basin have declined severely in recent years, leading the County to impose a B-8 zoning overlay in these areas, which restricts development to the first single dwelling on existing lots of record. A 2007 groundwater study recommended expansion of the B-8 zoning to cover the entire extent of the El Toro Primary Aquifer System. This same study found that at the current recharge rate for the basin (approximately 1,902 to 2,852 AFY), the projected future demand for 2,145 AFY may lower the groundwater level by 30 feet by 2030 (Geosyntec Consultants 2007)

Future growth in the El Toro Creek basin is constrained by current overdraft conditions and the B-8 overlay zoning. This includes development on existing lots, as well as any future subdivision in areas that draw water from the overdrafted aquifers. Increased withdrawals in these areas would result in significant impacts, without water distribution and/or augmentation to resolve overdraft conditions. Additionally, groundwater drawn in the El Toro Creek basin must treat arsenic to primary drinking water standards

### **Seaside Area Groundwater Basin**

Most of the Seaside Area groundwater basin is within the incorporated cities of Marina, Seaside, and Sand City (see Exhibit 4.3.3). No new Community Areas or Rural Centers are proposed by the 2007 General Plan in the basin. One new Affordable Housing Overlay area will be established in the Seaside basin—Mid-Hwy 68/Mid Peninsula Airport. However, inter-basin transfers of water that may be needed to meet the demands of the 2007 General Plan in neighboring basins would impact the water supply.

The Seaside Area basin is composed of a number of smaller sub-basins. MPWMD is responsible for regulation and supply of groundwater within the Seaside Area groundwater basin. The boundaries of the basin are poorly understood, particularly under Monterey Bay. Total known useable storage in the Seaside basin aquifer is about 6,200 acre-feet. Current water use within the basin is about 5,600 AFY. (Monterey Peninsula Water Management District 2007)

Because of a 1995 State Water Board Order (Order No. WR 95-10) that ruled Cal-Am did not have a legal right to roughly 70% of the surface water it had been diverting from the Carmel River (refer to Carmel River Conflicts), Cal-Am began drawing more water from groundwater wells within the Seaside groundwater basin. In 2006, the basin was adjudicated and a watermaster was appointed to manage the basin and bring its groundwater budget into balance. The adjudication resulted in a court-ordered physical solution to the basin's groundwater problem. The operating yield for three years beginning in 2007 for the basin as a whole was defined as 5,600 acre-feet (including 4,611 acre-feet for the coastal subareas). The judgment requires a 10% decrease in operating yield for the coastal subareas every three years beginning in 2010. The decreases are to continue until production reaches the "natural safe yield" of 3,000 AFY established under the judgment. The watermaster adopted the *Seaside Monitoring and Maintenance Program* in 2006 to implement the decreases. (Monterey Peninsula Water Management District 2007)

Unlike the neighboring Salinas Valley basin, a major portion of the groundwater that is extracted serves urban users. MPWMD reports that the basinwide average annual storage depletion is approximately 1,540 AFY. Annual recharge is estimated to be 3,557 AFY. Based on detailed analysis of water level trends and groundwater budgets, the estimated sustainable yield of the Seaside basin under present conditions is estimated to be 2,880 AFY, but recent average water demand has been approximately 5,600 AFY (Monterey Peninsula Water Management District 2005a). Present production rates are therefore unsustainable.

### **Water Resources Projects**

MCWRA and its cooperators, including MRWPCA, have two major capital projects that are completed or underway to better manage groundwater quality and reverse the long-term trend of seawater intrusion and groundwater declines in the Salinas Valley basin: the CSIP and the Salinas Valley Water Project (SVWP). The Seaside Basin ASR Project, operated jointly by Cal-Am and MPWMD, is described under "Carmel River Watershed" below. The Watsonville Area Water Recycling Project of the PVWMA is described under "Pajaro" below.

#### **Castroville Seawater Intrusion Project**

The CSIP was completed in 1998 by MCWRA to mitigate seawater intrusion in groundwater in the Salinas Valley basin. The CSIP includes construction



and operation of a reclaimed wastewater plant that collects sewage from Castroville, Marina, the Monterey Peninsula, Moss Landing, Salinas, and Seaside. The wastewater is treated to agricultural irrigation standards and is provided to area growers in place of water from their private agricultural wells. Through the delivery of water to the farmers, MCWRA is hoping that the CSIP will allow water levels in the 100-Foot/400-Foot Subarea aquifers to recover and possibly reverse the landward groundwater gradient that causes continued inland seawater intrusion. (Monterey County Water Resources Agency 2001b)

### **Salinas Valley Water Project**

MCWRA and MRWPCA are currently proceeding with the SVWP to further manage groundwater quality and reverse the long-term trend of seawater intrusion and groundwater declines in the Salinas Valley groundwater basin. The SVWP was undertaken because studies have established that the primary solution for controlling seawater intrusion and overdraft in the Salinas Valley is by relieving pumping stresses in the aquifers in the 100-Foot/400-Foot and East Side Subareas.

The SVWP project delivery area totals about 12,000 acres (Monterey County Water Resources Agency 2008a). The SVWP is aimed at meeting both agricultural or rural and urban demands in the Salinas Valley, a majority of the countywide demand. The SVWP has two main goals: (1) stopping seawater intrusion; and (2) providing adequate water supply to meet existing and future (2030) water demand on a sustainable basis. The SVWP has three main components (Monterey County Water Resources Agency 2001):

- *Modification of the Nacimiento Dam spillway* to increase flexibility of reservoir operations and allow the reservoir to maintain higher water levels, providing additional storage.
- Reoperation of the Nacimiento and San Antonio Reservoirs to reduce water releases in the wet season, thereby providing additional water available for recharge and diversion year round.
- Surface diversion/impoundment to provide water supply for irrigation during April through October. The facility would divert water to the CSIP system, for delivery to farmers in the Castroville area. The diverted water would supplement the recycled water produced by the CSIP and replace groundwater pumped from irrigation wells.

Nacimiento and San Antonio Reservoirs began operations in 1957 and 1967, respectively. The two reservoirs provide over 700,000 acre-feet of total storage for flood control and conservation purposes. The reservoirs historically have been operated to maximize releases for conservation, while minimizing flood control releases. Changes in the Nacimiento and San Antonio Dam operations under the SVWP will allow for planned releases to recharge into the Salinas Valley groundwater basin (Monterey County Water Resources Agency 2008a).

These components of the project are believed sufficient to halt seawater intrusion in the short term but may not be sufficient to meet water demand through the year 2030. Modeling conducted for the SVWP EIR/EIS determined that groundwater levels would be raised to varying degrees in all four sub-basins of the Salinas Valley groundwater basin (100-Foot/400-Foot, East Side, Forebay, and Upper Valley Subareas) due to decreased pumping and increased recharge along the Salinas River (Monterey County Water Resources Agency 2001). With the SVWP, benefits would be distributed more uniformly throughout the Salinas Valley. An expanded distribution system and expanded deliveries would be necessary to halt seawater intrusion in the long term. This subsequent phase would consist of an additional pipeline extending southeast of the existing CSIP service area, as well as other improvements. The pipeline and its impacts are discussed in concept in the SVWP EIR/EIS, but it has not yet been planned in detail.

An integral feature of the SVWP is restoration of low flows in the river channel during the dry summer season, which would contribute significantly to restoration of instream habitat for several native wildlife species. Restoration of low flows and other habitat restoration measures (see Section 4.9, Biological Resources) may provide the basis of a habitat restoration program that would remedy impaired conditions in a portion of the Salinas River basin.

The SVWP is in the final design stages, with construction on Phase I beginning in 2008. The CSIP and SVWP, along with increased urban and agricultural water conservation efforts, are expected to help bring the Salinas River basin into hydrologic balance.

## **Carmel River Watershed**

No new Community Areas or Rural Areas are proposed in the Carmel Valley groundwater basin. However, one new Affordable Housing Overlay area will be established in the Carmel River watershed—Mid-Carmel Valley. In addition, Carmel Valley Master Plan Policy CV-1.6 would limit buildout to 266 new lots within that part of the watershed.

The Carmel Valley groundwater basin supplies a majority of potable water to the *Carmel Valley Master Plan* and the *Greater Monterey Peninsula Area Plan* properties. Water in the Carmel Valley groundwater basin is derived primarily from alluvial aquifers located along the Carmel River. The water supply wells along the Carmel River aquifer became increasingly important as water supply sources when the Carmel area continued to grow throughout the 1970s and 1980s. The primary water supplier in the Carmel Valley basin is Cal-Am, a private water company that provides water to the MPWMD.

Total known useable storage in the Carmel River basin is about 31,300 acre-feet. This includes about 1,400–1,500 acre-feet in storage in Los Padre Reservoir on the Carmel River (the Seaside basin's 6,200 acre-feet capacity is not included in

this number). Demand in 2006 was estimated to be about 13,150 AFY, of which Cal-Am accounted for about 10,900 AF on average. (Monterey Peninsula Water Management District 2007)

In 2006, the Monterey Peninsula Water Management District estimated that additional demand would be 4,545 AFY by 2026. This was based on estimated water use at buildout of the general plans for the cities within the district and the unincorporated county. (Monterey Peninsula Water Management District 2007)

The water supply deficit in the basin is partly a result of limited water storage capacity. Storage in the Carmel River aquifer system has always been limited because of the naturally small volume of the aquifer, while storage in the two reservoirs has become substantially diminished because of siltation. San Clemente and Los Padres Reservoirs, which formerly had respective storage capacities of approximately 2,260 and 3,000 acre-feet, are now estimated to have only a fraction of their original capacity (Monterey County Water Resources Agency 2003). San Clemente Reservoir is nearly silted up and is no longer used for domestic supply. Los Padres Reservoir has a remaining capacity of approximately 1,400 acre-feet.

The limited reservoir capacity has led Cal-Am to pump more than its allotted water right from the Carmel River to meet customer demand. As a result, Cal-Am has been repeatedly charged by the State Water Board with diverting water from the Carmel River unlawfully (Order WR 95-10 and Order WR 98-04). While no additional demand within the basin is proposed by the 2007 General Plan, current restrictions on extraction in the basin intended to protect fish in the Carmel River (WR Order 2001-04 DWR) may affect adjacent groundwater basins, which must make up the loss of supply. Most recently (January 2008), the State Water Board issued a draft cease and desist order (CDO) (Order WR 2008-00XX-DWR) requiring Cal-Am to stop diverting water from the Carmel River in excess of its legal rights by reducing its unlawful diversions pursuant to a schedule set forth in the CDO (see the full discussion of State Water Board Orders under “Carmel River Conflicts”).

### **Water Resources Projects**

Over-pumping and flow diversion in the area of the lower Carmel Valley basin has caused significant dewatering of the Carmel River and has become a major political and environmental issue, resulting in a major dispute over water rights in the basin.

In the early 1990s, MPWMD pursued the Monterey Peninsula Water Supply Project, which proposed construction of the enlarged dam on the Los Padres Reservoir. However, County voters rejected the project, and, as a result, MPWMD developed an action plan for addressing water supply alternatives that emphasized non-dam-related projects, desalination options, reclamation, and use of the Seaside groundwater basin. Two water resources projects underway for the Carmel Valley are the Coastal Water Project and Seaside Basin ASR Project.

### **Coastal Water Project**

Cal-Am is proposing the Coastal Water Project, which consists of a desalination plant and treatment facilities in the Moss Landing area, conveyance pipelines to transport the desalinated water south, terminal reservoirs and a pump station to distribute the water to Cal-Am's existing system, and facilities for the Seaside Basin Aquifer Storage and Recovery (ASR) Project. The California Public Utilities Commission (CPUC) is preparing the EIR for the Coastal Water Project, which would supply about 11,730 AFY for urban users on the Peninsula, as well as for injection into the Seaside groundwater basin (California Public Utilities Commission 2008a). In the meantime, Cal-Am has initiated a pilot desalination facility at the Moss Landing Power Plant (MLLP), which will divert up to 200,000 gpd from the cooling system of the MLLP (California American Water 2005).

### **Seaside Basin Aquifer Storage and Recovery Project**

The Seaside Basin ASR Project, operated jointly by Cal-Am and MPWMD, involves diverting excess winter flows from the Carmel River for injection into the Seaside aquifer, for recovery in summer months. The State Water Board has granted temporary permits to allow diversion of 2,426 acre-feet of water from the Carmel River between December and May. Diverted water would be treated to potable drinking water standards and pumped through the Cal-Am distribution system to the Seaside groundwater basin, where it would be injected deep into the Santa Margarita Sandstone for storage and subsequent extraction. Maximum extraction would be approximately 2,028 AFY, leaving a portion of the injected water in the aquifer to allow for groundwater basin recovery (Monterey Peninsula Water Management District 2005a).

## **North County Watersheds**

Pajaro is a proposed Community Area in the 2007 General Plan. The North County planning area straddles the Pajaro Valley groundwater basin and the northeastern end of the Salinas Valley groundwater basin (East Side Subarea). The Pajaro Valley basin is administered by the PVWMA, while the Salinas Valley basin is managed by MCWRA. Multiple small groundwater aquifers provide potable water supply to the North County planning area properties.

The PVMA's Basin Management Plan estimates that in 2001 approximately 83% (59,200 AFY) of total water demand (71,500 AFY) was from agriculture, with urban users accounting for 17% (12,200 AFY). The Basin Management Plan projects that by 2040 demand will increase to 80,500 AFY, with agriculture consuming 80% (64,400 AFY) and urban use 20% (16,100 AFY) of that total. (Pajaro Valley Water Management Agency 2001)

Water for agricultural irrigation is mainly supplied by local-farm wells, while residential and municipal supplies are provided either through individual

domestic wells or through relatively small water systems consisting of two or more connections. The public review draft EIR prepared for the 21<sup>st</sup> Century General Plan update in 2004 reported that there are four large (more than 200 connections) water systems in the study area: Cal-Water's Oak Hills and Las Lomas water systems, Normeo, and the Aromas Water District. These four systems have approximately 2,246 connections, serving approximately 23% of the parcels in North County. There are approximately 600 small (from 2 to 200 connections) water systems in North County, serving approximately 3,707 parcels. This represents 38% of the total number of parcels in the area. Approximately 40% of parcels in North County are served by private wells or are undeveloped.

While the water problem in the greater Salinas Valley has been attributed to lack of effective distribution rather than insufficient supply, the same cannot be said for the North County. The North County aquifers are limited by a much smaller available surface area for recharge and relatively low precipitation compared to some of the highland areas. Due to demand exceeding supply, the area has been in a state of chronic overdraft since the 1950s. Groundwater extractions are estimated to be twice the average annual recharge. Resultant water supply and water quality problems include falling water levels, seawater intrusion, and extensive areas with nitrate contamination. North County problems not only affect residents and agriculture in the area, they also affect water supply and water quality conditions in the adjacent and hydraulically connected Salinas and Pajaro Valleys. Agriculture makes up the largest part of the water demand.

In addition, intensive agriculture and non-sewered residences have resulted in excessive nitrogen loading that has rendered groundwater non-potable in many areas. Continued overdraft of the groundwater will continue to lower water levels and draw seawater into the basin, reducing more of the storage capacity. Continued nitrogen loading will increase nitrate ion concentrations, degrading the potability of additional domestic water supplies.

### **Pajaro**

The PVMWA estimated that net groundwater pumping within the Pajaro groundwater basin (including portions of Santa Cruz County) from agricultural and urban uses, taking into account surface water diversions, was 69,000 AFY in 2001. According to PVWMA, a 65% reduction in basin-wide groundwater pumping (by 45,000 AFY) would be necessary to eliminate seawater intrusion and restore groundwater levels throughout the coastal area. Therefore, the sustainable yield of the groundwater basin at present is approximately 24,000 AFY (Pajaro Valley Water Management Agency 2002). The PVWM Basin Management Plan estimates that total groundwater pumping will increase to 78,000 AFY by 2040 (Pajaro Valley Water Management Agency 2002). This exceeds sustainable yield by approximately 54,000 AFY.

PVWMA is exploring importation from the Central Valley Project and is currently implementing projects that are similar to the CSIP project operated by MCWRA, including the Watsonville Area Water Recycling Project and the

associated Coastal Distribution System. A desalination proposal is also being explored by Pajaro/Sunny Mesa Community Services District.

### **Potential Importation of Central Valley Project Water**

In order to meet supplemental supply volumes, PVWMA is pursuing potential methods of importing water from outside the basin. Importation is considered the only feasible means of mitigating the current overdraft conditions in the Pajaro Valley because of the magnitude of overdraft and the otherwise intractable nature of the supply problem. PVWMA's *Revised Basin Management Plan* includes a 54-inch diameter, 23-mile-long pipeline from the nearest import pipeline in Santa Clara County to the Coastal Distribution System (described below). The amount to be imported was planned to be an average of 11,900 AFY (Pajaro Valley Water Management Agency 2008b). However, the price of the pipeline may be prohibitively high and additional opportunities to obtain Central Valley Project (or other) supply contracts are limited.

Although the PVWMA has a future Central Valley Project entitlement of 19,900 AFY and an existing contract for 6,260 AFY from the U.S. Bureau of Reclamation, these sources will not be available in the foreseeable future, if at all. The Central Valley Project Improvement Act restricts the Bureau of Reclamation from entering into long-term water supply contracts until certain environmental requirements are met. Federal District Court decisions in 2007 and 2008 have restricted water pumping on both the state and federal projects in order to protect special status species fish populations, including the Delta smelt, which have recently plummeted. These restrictions will be modified when the federal wildlife agencies issue new biological opinions for the pumping, but pumping is not expected to return to its prior levels without changes to the system by which water is moved through the Delta itself.

### **Watsonville Area Water Recycling Project and Coastal Distribution System**

The Watsonville Area Water Recycling Project is being built by PVWMA and the City of Watsonville, which owns an existing 8,000-AFY wastewater treatment plant. The plant is undergoing a major upgrade to treat the secondary water to the advanced tertiary level (i.e., Title 22 standards) which is suitable for all uses except for potable uses. The project will provide 4,000 AFY of recycled water for irrigation supply to replace current groundwater pumping (Pajaro Valley Water Management Agency 2008a). In April 2006, the Santa Cruz County Board of Supervisors approved the rezoning and coastal development permit to allow an upgrade of Watsonville's wastewater treatment plant, providing the final approval needed for the projects. Pursuant to the California Coastal Commission's permit for the project, the recycled water available from the plant is to be used for agricultural purposes only and any agricultural groundwater use offset by the delivery of recycled water will not be available for domestic use.

The project is expected to be completed in October 2008. Farmers receiving water will be required to first install backflow prevention devices, so actual water deliveries are not anticipated to occur until March 2009 (Geyer pers. comm. 2008).

The associated Coastal Distribution System is a series of pipelines to deliver the recycled water (and all future sources of new water) to farmlands in the seawater intrusion areas. Groundwater modeling has shown that the most effective way to achieve overall groundwater basin balance and reduce seawater intrusion is to eliminate coastal pumping (Pajaro Valley Water Management Agency 2002). Therefore, replacement water supplies are focused in the coastal zone. Phase 1 of the system was constructed over the last five years on the Santa Cruz County side of the Pajaro River. These pipelines supply water to about 2,000 acres in the areas most impacted by seawater intrusion. Phase 2 of the pipeline, which will serve lands in Monterey County south of the Pajaro River, was completed in June 2008 (Pajaro Valley Water Management Agency 2008a).

### **Pajaro/Sunny Mesa Desalination Project**

The Pajaro/Sunny Mesa Community Services District is currently investigating the possibility of installing a regional desalination plant at Moss Landing to provide freshwater to combat groundwater nitrate contamination and seawater intrusion. The District has entered into an agreement with Poseidon Resources to build the plant, has secured a site, and is pursuing permits (Local Agency Formation Commission of Monterey County 2006). The plant would provide up to 21,000 AFY if approved and built.

### **Other North County**

In 2002, MCWRA drafted a *Comprehensive Water Resources Management Plan* to present strategies to resolve overdraft conditions and associated water quality problems in North County. For the area within MCWRA's jurisdiction (the Salinas Valley basin), the plan proposes a possible long-term expansion of the SVWP to deliver supplemental water to agricultural users in North County. This would be dependent upon the participation and funding support of landowners in the area.

The Final EIR prepared for the Rancho Roberto subdivision in the North County examined the sustainable yields for the area based on the findings of the *Comprehensive Water Resources Management Plan* and an earlier report. The Final EIR stated that the North County recharge volume is between 5,500 AFY and 9,275 AFY. Geologic features underlying the Springfield Terrace sub-area prevent its effective recharge. The following information (Table 4.3-7) taken from the Rancho Roberto Final EIR illustrates the extent of overdraft in the North County. The 1982 General Plan projection would tend to overstate the 2007 General Plan (which limits new development in the North County to the first residence on existing lots of record), except in the Pajaro Community Area, where the 2007 General Plan would authorize more development.

**Table 4.3-7.** North County Demand, Overdraft, and Sustainable Yield

Subarea	2004 Conditions (AFY)		1982 General Plan Conditions		Sustainable Yield
	Demand	Overdraft	Demand	Overdraft	
Springfield Terrace	7,594	7,594	8,330	8,330	0
Pajaro (Monterey County)	10,130	3,640	10,215	3,725	6,490
Highlands North	5,621	2,701	7,636	4,716	2,920
Highlands South	6,095	1,705	8,399	4,009	4,390
Granite Ridge	1,310	700	1,544	934	610
Total	30,750	16,340	36,124	21,714	14,410

Source: EMC Planning Group 2005.

## Other Watersheds

Other areas of the county typically have only small groundwater basins because there are no large alluvial deposits or major valley bottoms through which surface water can infiltrate and collect. This includes most of the mountainous area from the Monterey Peninsula southward through the Big Sur area and within the Diablo Range located east of the Salinas Valley. No Community Areas or Rural Centers are proposed in these areas.

### Estrella River Watershed

The Estrella River is a main tributary of the Upper Salinas River and is located in northeastern San Luis Obispo County and the southeast corner of Monterey County. The limited development projected in the 2007 General Plan would occur on land that is currently zoned for resource conservation. Water needed for new development may be obtained from local groundwater wells and would slightly increase pumping.

### Big Sur Coast Watershed

The Big Sur Coast watershed includes the steep and rugged terrain on the coastal side of the Santa Lucia Mountains. Development is sparse, with limited cropland and scattered grazing. The major industry of the few small towns such as Big Sur, Gorda, and Lucia is tourism. No significant water storage facilities are located in the basin, and water is supplied by shallow wells or stream diversions from the major tributaries. Septic tanks near the Big Sur River are a concern for water quality. No Community Areas or Rural Centers are proposed within this area under the 2007 General Plan. The developable area is within the Coastal Zone and subject to the Big Sur Local Coastal Program (LCP) Land Use Plan. Because of its beauty and lack of infrastructure this area is not slated for significant future development. The 2007 General Plan does not propose any changes to the Big Sur LCP. The inland portions of the area are not proposed for new development either.



## **Groundwater Management and Monitoring Programs**

Management of the water supply and groundwater system must consider the limits to which water can be drawn without depleting the resource or what exceeds the safe yield. The “safe yield” is defined as the annual draft of water that can be withdrawn without producing some undesirable result. Chronic overdraft can lead to a depletion of groundwater to levels in excess of the system’s ability to recover, given the basin’s water budget. When groundwater levels decline, they can diminish the productivity of wells altogether or necessitate that wells pump to greater depths.

Overdrafting and diversion or loss of recharge water, as well as periodic droughts, has caused historical declines in the groundwater table and resultant seawater intrusion into coastal aquifers. Long-term management of the overdraft problem through capital programs, water conservation and recycling, and protection of the prime recharge areas for important aquifers play an important role in assuring long-term sustainability in terms of groundwater quality and volume.

### **Groundwater Extraction Monitoring**

There is no overarching monitoring program for all the groundwater basins in the county. However, Ordinances 3663 and 3717 adopted by the Monterey County Board of Supervisors require suppliers within Zones 2, 2A, and 2B to report water use information for groundwater extraction facilities (see Monterey County Water Resources Agency 2007). This includes a majority of the Salinas Valley basin, where water demand is greatest. Information is collected and compiled by the Groundwater Extraction Management System (GEMS) portion of the Water Resources Agency Information Management System, a relational database maintained by MCWRA for most of the Salinas Valley. This information is compiled in an annual groundwater extraction report for domestic water and irrigation systems with pipes of inside diameter exceeding 3 inches. While the information is not comprehensive, it does detail water use statistics for the biggest consumers in the county.

In addition to providing statistical data, the groundwater extraction reports chart trends in agriculture and the success of conservation efforts since 1993 by reporting the net acre distribution of irrigation methods by crop type and implementation of BMPs in agricultural areas, as well as the progress of BMPs used by urban suppliers and consumers. Reports indicate a slight increase in irrigated crop area from the early to mid 1990s (173,600 net acres in 1993) to now (174,500 net acres in 2006) (Monterey County Water Resources Agency 2007). The report also indicates that a shift to the use of water-saving measures, such as drip irrigation versus less conservative irrigation methods such as sprinkler and furrow, has helped reduce total consumption. Use of BMPs by urban providers and consumers has been more variable (Monterey County Water Resources Agency 2007).

As discussed above, the watermaster appointed in the Seaside basin as a result of adjudication of the aquifer established a Seaside Monitoring and Management

Program in 2006 to ensure that the water use reductions established under the adjudication are carried out.

### **Recycled Water and Reuse**

As constraints on local water supply increase, the use of treated wastewater (i.e., recycled water) and other subpotable supplies becomes a more significant component of the total water supply picture. As recycled water becomes more of a commodity, sewerage collection infrastructure may be expanded to developed areas currently being served by onsite septic systems or development-specific “package plants” (hybrid treatment plants that combine two or more of the main treatment stages into one combined process). Many jurisdictions have conducted studies to identify potential uses of nonpotable water supplies. Notwithstanding the significant capital costs associated with recycled water use, opportunities for water recycling do exist throughout the county, provided the proper level of treatment is maintained to ensure protection of public health. The existing 1982 General Plan acknowledged this issue and contains policies in support of water reclamation. Three notable water reuse projects that are currently being implemented in the region include the Monterey County Water Recycling Project and the Watsonville Area Water Recycling project discussed earlier, and the Pebble Beach Community Services District’s (PBCSD) use of reclaimed wastewater.

PBCSD contracts with the Carmel Area Wastewater District for use of, on average, 660 AFY of tertiary-treated wastewater for Del Monte Forest/Pebble Beach golf courses, athletic fields, and other landscaped areas. In 1998, Cal-Am sold its Forest Lake Reservoir to PBCSD to increase storage capacity for reclaimed wastewater. The reservoir is expected to supply 800 AFY (496 mgd) for landscaping and irrigation.

## **4.3.2.5 Carmel River Conflicts**

In July 1995, the State Water Board issued Order WR 95-10, which determined that 10,730 AFY of water pumped from the Carmel River was being diverted unlawfully by Cal-Am. The State Water Board also determined that adverse environmental effects had resulted from Cal-Am’s actions and that these effects must be mitigated, including impacts on the riparian corridor along the river, wildlife that depends on riparian habitat, and steelhead and other fish inhabiting the river. The order further established an interim annual production goal of no more than 11,285 AFY from the Carmel Valley basin and directed Cal-Am to secure permits for its water use (3,376 AFY), address the adverse environmental consequences of that use, and begin immediate water conservation. This resulted in a judicial order that required Cal-Am to conduct two studies to evaluate whether its existing diversions at San Clemente Dam would be changed in order to maintain more surface flow in the Carmel River.

In settlement of litigation, the State Water Board amended Order 95-10 by issuing Order WR 98-04 in February 1998. This order allowed:

- direct diversion and diversion to storage throughout the year from the Carmel River at times when flows were physically available over and above fish flow requirements;
- that the total quantity of water originating in the Carmel River diverted to beneficial use by Cal-Am and the MPWMD would not exceed 16,000 acre-feet; and
- that Cal-Am would cease withdrawals of water from the San Clemente Dam and reduce diversions from production well facilities in the Carmel River during low flow periods of the year, except during an emergency (California State Water Resources Control Board 2008).

Cal-Am owns and operates San Clemente Dam, Los Padres Dam, and 21 downstream extraction wells on the Carmel River. After reviewing the technical studies prepared by judicial order, the chief of the Division of Water Rights issued WR Order 2001-04 DWR, which directed Cal-Am to shift its diversion from San Clemente Dam to extraction of groundwater in downstream areas. Petitions for reconsideration were filed by the National Marine Fisheries Service (NMFS); Cal-Am; the MPWMD; and, jointly, the Carmel River Steelhead Association and the Ventana Chapter of the Sierra Club. A conservation agreement between Cal-Am and the NMFS later was submitted to the State Water Board for consideration. The conservation agreement required Cal-Am to modify its diversion pattern to forego diversions at San Clemente Reservoir and divert the foregone water at downstream locations to benefit the river's steelhead fishery.

In response to this order, Cal-Am filed a lawsuit to adjudicate the rights of the various groundwater pumpers of the Seaside basin aquifer, where there is also concern about sustainable yield. In a final ruling on March 27, 2006, Cal-Am was required to reduce pumping on the Seaside groundwater basin by 10%, its only current alternative to drawing water from the restricted Carmel River. An additional 10% reduction would be required by 2009. The ruling found that "groundwater production within the Seaside groundwater basin exceeds the Natural Safe Yield" to prevent seawater intrusion and that the solution is to reduce pumping to maintain a positive flow of fresh water into the aquifer and keep out saltwater.

As discussed above, the suit (*Cal-Am v. City of Seaside*) also resulted in a ruling that sets a safe pumping level of 5,600 AFY (500 acre-feet less than the maximum pumped in recent years) and created a "watermaster board" to oversee groundwater management in the Seaside basin, because a groundwater management plan was never adopted. The watermaster board includes representatives from Cal-Am, the City of Seaside, the MPWMD, the MCRWA, the City of Monterey, the City of Sand City, the City of Del Rey Oaks, coastal landowners, and Laguna Seca landowners.

On January 15, 2008, the State Water Board issued a draft CDO (Order WR 2008-00XX-DWR) requiring Cal-Am to stop diverting water from the Carmel River in excess of its legal rights, by reducing its unlawful diversions pursuant to

a schedule set forth in the CDO. The draft CDO alleges that since 2000, Cal-Am has illegally diverted at least 7,164 AFY from the Carmel River and that Cal-Am's unauthorized diversions continue to have adverse effects on the public trust resources on the river (California State Water Resources Control Board 2008). The State Water Board completed its hearings on the draft CDO order in August 2008 and the Board's decision is pending.

As discussed above, Cal-Am has proposed to construct and operate a desalination plant at Moss Landing under its Water Supply Program. This project is being undertaken to provide an alternative water supply that would allow Cal-Am to halt its diversions, while still providing water for existing levels of development on the Monterey Peninsula. The proposed Water Supply Program is subject to review and approval by the CPUC.

### 4.3.3 Regulatory Framework

Water resources are managed and regulated to meet the needs of human development, while protecting aquatic life and human health, according to the provisions of the federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act (Porter-Cologne), and numerous state and local regulatory programs.

There is extensive overlap in regulatory programs governing environmental aspects of water resources, especially in water quality and the public health and safety aspects of water supply. Much of the development and implementation of local water quality programs or ordinances has been mandated by the State of California, with some of the state programs in turn required by the federal government. Many of the local regulations and ordinances affecting water resources, including drainage and floodplain management, are contained in the Monterey County Code or in the regulations of the MCWRA, or both. In addition, the MPWMD regulates water use on the Monterey Peninsula. As with most counties in California, drinking water standards and local water supply and potable water program enforcement is administered by the County's Environmental Health Division, acting under the guidance of the State Department of Public Health (DPH) and ultimately the federal EPA. Surface water quality and groundwater quality, including point source discharge control programs, groundwater quality that may be affected by surface and subsurface discharges, and stormwater runoff water quality issues, are primarily administered by the Central Coast RWQCB, although certain aspects also may be administered or co-administered by local agencies.

As implied above, water law and water resources regulation in California is very complex, with many regulations and programs, and a large number of separate agencies with a mission to enforce them. Because of the interrelationship among the various issues affecting water resources (for instance, groundwater overdraft and subsequent seawater intrusion affecting groundwater quality and potable water quality and quantity), management often requires close coordination among the many agencies when dealing with a water-related issue.

Consequently, a single project may need to obtain many permits and approvals from several agencies prior to implementation.

### **4.3.3.1 Federal Regulations**

The EPA is the federal entity responsible for establishing and enforcing fundamental water quality regulations in the United States. The EPA also controls public health and the environment by setting standards for drinking water contaminants and protecting sources of drinking water under the Safe Drinking Water Act of 1974. The EPA develops minimum standards, and the states then develop individual programs that best meet their unique needs, consistent with or exceeding the federal minimum standards. The EPA is also responsible for monitoring state adherence to the minimum federal standards.

#### **Clean Water Act**

The CWA is the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. It operates on the principle that all discharges into the nation's waters are unlawful unless specifically authorized by a permit; permit review is the CWA's primary regulatory tool.

Several sections of the 1972 CWA regulate impacts on waters of the United States. CWA Section 101 specifies the objectives of the CWA, implemented largely through CWA Title III (Standards and Enforcement) and CWA Section 301 (Prohibitions). Identification of impaired water bodies and required actions to address the impairments are specified under CWA Section 303. The discharge of dredged or fill material into waters of the United States is subject to permitting specified under CWA Title IV (Permits and Licenses) and specifically under CWA Section 404 (Discharges of Dredged or Fill Material). CWA Section 401 (Certification) specifies additional requirements for permit review by the Central Coast RWQCB.

#### **Section 401—Water Quality Certification**

Section 401 requires that an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant obtain a water quality certification. Water quality certifications are issued by the RWQCBs in California. Under the CWA, the state (as implemented by the Central Coast RWQCB) must issue or waive Section 401 water quality certification for the project to be permitted under Section 404. Water quality certification requires the evaluation of water quality considerations associated with dredging or placement of fill materials into waters of the United States. Implementation of any of the action alternatives would require a Section 401 water quality certification.

### **Section 402—National Pollutant Discharge Elimination System Program**

The 1972 amendments to the CWA established the NPDES permit program (Section 402) to control point source discharges from industrial, municipal, and other facilities if their discharges go directly to surface waters. The 1987 amendments to the CWA created a new section of the CWA devoted to regulating stormwater or nonpoint source discharges (Section 402[p]). The EPA has granted California primacy in administering and enforcing the provisions of the CWA and the NPDES program through the State Water Resources Control Board (SWRCB).

The SWRCB issues both general and individual permits for discharges from certain activities, administered by the RWQCBs. As of 2006, the NPDES program now regulates stormwater discharges from municipal storm sewer systems (MS4s) serving at least 50,000 persons or other areas with a population density of at least 1,000 per square mile based on census counts. Recently, the City of Salinas adopted and started enforcing a new stormwater management plan under the provisions of the Phase II NPDES (Orders 99-087 and 2004-0135). Salinas is the only city in Monterey County with a population exceeding 50,000.

Designated Phase II MS4 areas in the unincorporated county include Carmel Valley; Corral de Tierra/San Benancio; Toro Park; a large area bounded by the Salinas River, Davis Road, SR 68, and the city of Salinas; a second large area southeast of San Juan Grade Road and northeast of Salinas; Pajaro and its surroundings; Castroville; and Prunedale. Since 2001, the Monterey Regional Storm Water Permit Participants Group, composed of the Cities of Monterey, Carmel-by-the-Sea, Del Rey Oaks, Sand City, Seaside, Marina, and Pacific Grove; the County; and the Pebble Beach Co., have been developing a regional stormwater program for the Monterey Peninsula and surrounding areas to prepare an NPDES Phase II permit application. The MRWPCA acts as the group's administrative agent.

Construction activities are regulated under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit), provided that the total amount of ground disturbance during construction exceeds 1 acre. Coverage under a General Construction Permit requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and submittal of a notice of intent (NOI) to comply with the General Construction Permit. The SWPPP includes a description of BMPs to minimize the discharge of pollutants from the site during construction. Typical BMPs include temporary soil stabilization measures (e.g., mulching and seeding), storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or stormwater, and using filtering mechanisms at drop inlets to prevent contaminants from entering storm drains. Typical postconstruction management practices include street sweeping and cleaning stormwater drain inlet structures. The NOI includes site-specific information and the certification of compliance with the terms of the General Construction Permit.

The NPDES General Industrial Permit requirements apply to the discharge of stormwater associated with industrial sites. The permit requires implementation of management measures that will achieve the performance standard of the best available technology economically achievable and best conventional pollutant control technology. Under the statute, operators of new facilities must implement industrial BMPs in the project SWPPP and perform monitoring of stormwater discharges and unauthorized non-stormwater discharges.

### **Section 404—Discharge of Dredged or Fill Materials**

CWA Section 404 regulates the discharge of dredged and fill material into waters of the United States. “Waters of the United States” refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands, including any or all of the following:

- areas within the ordinary high water mark of a stream, including nonperennial streams with a defined bed and bank;
- any stream channel that conveys natural runoff, even if it has been realigned; and
- seasonal and perennial wetlands, including coastal wetlands.

Applicants must obtain a permit from the USACE for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed activity. Before any actions that may affect surface waters are carried out, a delineation of jurisdictional waters of the United States must be completed, following USACE protocols, in order to determine whether the project area encompasses wetlands or other waters of the United States that qualify for CWA protection.

The USACE issues several types of permits, including regional general permits (RGPs), nationwide permits (NWPs), and individual permits. General permits are preauthorized and are issued to cover multiple instances of similar activities expected to cause only minimal adverse environmental effects. A NWP is a type of general permit issued to cover particular fill activities, which specifies particular conditions that must be met in order for the NWP to apply to a given project. Individual permits are required when the proposed activity does not meet the criteria allowing use of a RGP or NWP. Individual permits may be issued only for the least environmentally damaging practicable alternative. That is, authorization of a dredge or fill project is prohibited if there is a practicable alternative that would have fewer adverse impacts and that lacks other significant adverse consequences.

## **Drinking Water**

A number of federal, state, and local governments protect beneficial uses and water quality objectives for surface water and groundwater resources. Government Code Section 65302 (Land Use), requires city and county general plans to address water supply as a topical issue, using an Urban Water

Management Plan as a primary source document. Programs and regulations related to drinking water quality, water supply, and wastewater treatment and disposal are described below.

The federal government sets minimum standards for the protection of water quality, including for drinking water and environmental protection, and has jurisdiction over flow in some waters where rivers or streams cross state boundaries. The federal government also has a voice in water management through its jurisdiction over energy regulation (for hydroelectric projects) and where endangered fish and aquatic species occur within a water body.

The federal CWA (including WDRs, the NPDES program, and Section 303(d) impaired water bodies and TMDLs) is described in detail in Section 4.3, Water Resources. The CWA is largely administered by the State Water Board and the Central Coast RWQCB.

### **Safe Drinking Water Act**

Drinking water quality is based on two general standards: (1) organic and inorganic water contaminants that may have detrimental effects on health and safety; and (2) aesthetic qualities of water that may make water unpalatable or unpleasant to customers. The Safe Drinking Water Act of 1974 establishes the EPA as the primary government entity with responsibility for setting national drinking water standards for public water systems. Since 1974, the EPA has set national water quality standards for over 80 contaminants in drinking water. The National Primary Drinking Water Standards establish the maximum contaminant levels (MCLs) allowed in public distribution systems. The National Secondary Drinking Water Standards establish the MCLs that apply to potable water supplies at the point of delivery to the customer. While the EPA and state governments enforce water quality standards, local governments and private water suppliers are ultimately responsible for the quality of water supplies.

### **Coastal Zone Management Act**

The federal Coastal Zone Management Act (CZMA) of 1972 (16 United States Code Sections 1451–1465) encourages states to preserve, protect, develop, and, where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs—as well as the fish and wildlife using those habitats. The CZMA asks coastal states to voluntarily develop and implement a comprehensive coastal management program. California’s coastal management program has been approved by the federal government. The program includes the California Coastal Commission’s program for the Pacific Ocean coastline segment of the coastal zone and the California Coastal Conservancy’s program for the restoration and enhancement of coastal resources.

Monterey County’s Coastal Commission–approved Local Coastal Program implements the CZMA and the California Coastal Act. Because the proposed



2007 General Plan would not change the County's approved local coastal plans, the CZMA is not pertinent to analysis of the 2007 General Plan's potential environmental effects.

## **National Flood Insurance Program**

The County and all of the incorporated cities in the county are participants in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA). The NFIP is intended to reduce future flood damage by encouraging local governments to adopt floodplain management regulatory programs. Two subsequent laws, the Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994, have made the purchase of flood insurance mandatory for federal financial assistance for acquisition or construction of buildings in SFHAs. The NFIP is composed of three components: Flood Insurance Rate Maps (FIRMs), flood insurance, and floodplain management regulations. The FEMA FIRMs identify floodplain hazard areas prone to flooding during major storm events. The FIRMs are used by insurance companies to set flood insurance rates and by local municipalities for implementing flood control ordinances, which restrict new development in floodplains.

Exhibit 4.3.13 shows the locations and extent of flood zones identified by the FIRMs within the county. The 100-year floodplain was delineated along the course of the Salinas River, the Pajaro River, and the lower reaches of the Carmel River. In the vicinity of Salinas and North County, it encompasses the sloughs and marshes that function as major drainage features.

### **4.3.3.2 State Regulations**

DWR is the state agency responsible for managing California's water resources, including conducting technical studies of surface- and groundwater in cooperation with local agencies, overseeing certain flood prevention and floodplain management programs, and developing and implementing water conservation and efficient water use strategies and programs in cooperation with local agencies. DWR is also responsible for building, operating, and maintaining the State Water Project, which supplies drinking water and agricultural irrigation water to various parts of the state, but not to Monterey County. DWR has been given the responsibility for overseeing the preparation of groundwater management plans. DWR does not regulate water quality, which is the realm of the SWRCB.

#### **Section 303—Impaired Water Bodies and Total Maximum Daily Loads**

In accordance with CWA Section 303(d), state governments must present the EPA with a list of "impaired water bodies," defined as those water bodies that do

not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The CWA also mandates that states rank each water body by factors such as severity, potential restoration of beneficial uses, and availability of data; and that Total Maximum Daily Loads (TMDLs) are developed for the pollutants of concern.

On June 28, 2007, the EPA gave final approval to California’s 2006 Section 303(d) List of Water Quality Limited Segments. Table 4.3-8 shows Monterey County water bodies on the 2006 Section 303(d) List. These water bodies are depicted in Exhibit 4.3.14.

The CWA requires the development of actions to improve the quality of impaired water bodies identified through Section 303(d). The TMDL is the quantity of a pollutant that can be safely assimilated by a water body while maintaining its designated beneficial uses and not violating water quality standards. The listing of a water body as impaired does not necessarily suggest that the water body cannot support the beneficial uses; rather, the intent is to identify the water body as requiring future development of a TMDL to maintain water quality and reduce the potential for future water quality degradation. NPDES permits (discussed above) for water discharges must take into account the pollutant for which a water body is listed as impaired. Specific requirements for the permits would be stated in the TMDL for that pollutant.

As a process, TMDLs serve to identify impaired water bodies, determine the sources for this impairment, and implement mitigation measures to reduce those sources and remove impairments. Public input and comment is sought at each of these steps. The TMDL document gives a quantitative assessment of water quality problems and contributing pollutant sources. It specifies the amount of pollution reduction necessary to meet water quality standards, allocates the necessary pollutant limits among the various sources in the watershed, and provides a basis for taking actions needed to restore a water body. The goal of a TMDL is to establish water quality standards to be met through local agency action.

TMDLs are adopted as amendments to the RWQCB’s basin plan, which are subject to approval by the RWQCB and the State Water Board.

**Table 4.3-8.** Monterey County Water Bodies on California’s 2006 Section 303(d) List of Impaired Waters

Name	Pollutant	Potential Sources	Estimated TMDL Completion	Estimated Size Affected
Alisal Creek (Salinas)	Nitrate	Unknown	2007	7.4 miles
	Fecal coliform	Agriculture Urban runoff/storm sewers Natural sources Nonpoint source	2007	

Name	Pollutant	Potential Sources	Estimated TMDL Completion	Estimated Size Affected
Blanco Drain	Pesticides	Agriculture Irrigated crop production Agricultural storm runoff Agricultural irrigation tailwater Agricultural return flows Nonpoint source	2008	15.3 miles
Cholame Creek	Boron	Unknown	2019	8.7 miles
Elkhorn Slough	Pesticides	Agriculture Irrigated crop production Agricultural storm runoff Agricultural return flows Erosion/siltation Contaminated sediments Nonpoint source	2008	2,034 acres
	Sedimentation/ siltation	Agriculture Irrigated crop production Agricultural storm runoff Channel erosion Nonpoint source	2015	
	Pathogens	Natural sources Nonpoint source	2015	
Espinosa Slough	Pesticides	Agriculture Urban runoff/storm sewers	2008	1.5 miles
	Priority organics	Nonpoint source	2008	
Gabilan Creek	Nitrate as nitrate (NO <sub>3</sub> )	Unknown	2019	6.4 miles
	Fecal coliform	Urban runoff/storm sewers Natural sources Nonpoint sources	2007	
Monterey Harbor	Unknown toxicity	Unknown	2019	76 acres
	Metals	Railroad slag pile	2007	
Moro Cojo Slough	Pesticides	Agriculture Irrigated crop production Agricultural storm runoff Agricultural return flows Nonpoint source	2006	62 acres
	Ammonia (un-ionized)	Unknown	2019	
	Sedimentation/ siltation	Agriculture Irrigated crop production Agricultural storm runoff Construction/land development Nonpoint source	2019	
	Low dissolved oxygen	Unknown	2019	
Moss Landing Harbor	Pathogens	Agriculture Nonpoint sources Boat discharges/ vessel wastes	2019	79 acres
	Pesticides	Agriculture Irrigated crop production Specialty crop production	2006	

Name	Pollutant	Potential Sources	Estimated TMDL Completion	Estimated Size Affected
	Sedimentation/ siltation	Agriculture Irrigated crop production Agricultural storm runoff Hydromodification Dredging Channel erosion Erosion/siltation Nonpoint source	2019	
Natividad Creek	Nitrate as nitrate (NO <sub>3</sub> )	Unknown	2019	7 miles
Old Salinas River Estuary	Ammonia (un-ionized)	Source unknown	2019	74 acres
	Fecal coliform	Source unknown	2007	
	Low dissolved oxygen	Source unknown	2019	
	Nutrients	Agriculture Irrigated crop production Agricultural irrigation tailwater Nonpoint source	2007	
	Pesticides	Agriculture Irrigated crop production Agricultural storm runoff Agricultural irrigation tailwater Agricultural return flows Nonpoint source	2008	
Pajaro River	Boron	Unknown	2019	32 miles
	Fecal coliform	Pasture grazing—riparian and/or upland Natural sources Nonpoint source	2011	
	Nutrients	Agriculture Irrigated crop production Agricultural storm runoff Agricultural subsurface drainage Agricultural irrigation tailwater Agricultural return flows Urban runoff/storm sewers Wastewater—land disposal Channelization Removal of riparian vegetation Nonpoint source	Complete	32 miles
	<i>Pajaro River (including Llagas Creek) nitrate TMDL approved on October 13, 2006, by the EPA</i>			
	Sedimentation/ siltation	Agriculture Irrigated crop production Range grazing—riparian and upland Agricultural storm runoff Resource extraction Surface mining Hydromodification Channelization Habitat modification Removal of riparian vegetation Streambank modification/ destabilization Channel erosion	Complete	
	<i>Pajaro River (including San Benito River, Llagas Creek, and Rider Creek) sediment TMDL approved on May 3, 2007, by the EPA</i>			

Name	Pollutant	Potential Sources	Estimated TMDL Completion	Estimated Size Affected
Quail Creek	Nitrate as nitrate (NO <sub>3</sub> )	Unknown	2019	4.2 miles
Salinas Reclamation Canal	Pesticides	Minor industrial point source	2008	14 miles
		Agriculture Irrigated crop production Agricultural storm runoff Agricultural irrigation tailwater Agricultural return flows Nonpoint source		
	Priority organics	Minor industrial point source	2008	
		Agriculture Irrigated crop production Agricultural storm runoff Agricultural irrigation tailwater Agricultural return flows Urban runoff/storm sewers Unknown Nonpoint source		
	Ammonia (un-ionized)	Unknown	2019	
	Low dissolved oxygen	Unknown	2019	
Fecal coliform	Agriculture Pasture grazing—riparian and upland Urban runoff/storm sewers Natural sources	2007		
Salinas River (lower, estuary to near Gonzales Road crossing, watersheds 30910 and 30920)	Pesticides	Agriculture Irrigated crop production Agricultural storm runoff Agricultural irrigation tailwater Agricultural return flows Nonpoint source	2008	31 miles
	Nutrients	Agriculture	2007	
	Nitrate as nitrate (NO <sub>3</sub> )	Unknown	2019	
	Salinity/TDS/chlorides	Agriculture Natural sources Nonpoint source	2019	
	Toxaphene	Unknown	2019	
Fecal coliform	Unknown	2007		
Salinas River (middle, near Gonzales Road crossing to the confluence with the Nacimiento River)	Pesticides	Agriculture Irrigated crop production Agricultural storm runoff Agricultural irrigation tailwater Agricultural return flows Nonpoint source	2008	72 miles
	Salinity/TDS/chlorides	Agriculture Natural sources Nonpoint source	2019	

Name	Pollutant	Potential Sources	Estimated TMDL Completion	Estimated Size Affected
Salinas River (upper, confluence of the Nacimiento River to Santa Margarita Reservoir)	Chloride	Agriculture Pasture grazing—riparian or upland Urban runoff/storm sewers	2019	49 miles
	Sodium	Agriculture Pasture grazing—riparian or upland Urban runoff/storm sewers	2019	
Salinas River Lagoon (North)	Pesticides	Agriculture	2008	197 acres
	Nutrients	Nonpoint source	2007	
San Lorenzo Creek	Boron	Unknown	2019	49 miles
	Fecal coliform	Agriculture Pasture grazing—riparian and/or upland Urban runoff/storm sewers Natural sources	2019	
Santa Rita Creek (Monterey County)	Nitrate as nitrate (NO <sub>3</sub> )	Unknown	2019	11 miles
Tembladero Slough	Pesticides	Agriculture Irrigated crop production Agricultural storm runoff Agricultural return flows Nonpoint source	2008	5 miles
		Ammonia (un-ionized)	Unknown	
	Nutrients	Agriculture Irrigated crop production Agricultural storm runoff Agricultural irrigation tailwater Agricultural return flows Nonpoint source	2006	
	Fecal coliform	Agriculture Pasture grazing—riparian or upland Urban runoff/storm sewers Natural sources	2007	

Source: California State Water Resources Control Board 2006.

## Porter-Cologne Water Quality Control Act

With the passage of California's Porter-Cologne Act, the SWRCB and the nine RWQCBs became the principal state agencies with responsibility for the coordination and control of water quality. Per the California Water Code, the SWRCB is generally responsible for setting statewide water quality policy and is solely responsible for the allocation or determination of surface water rights. The RWQCBs are responsible for water quality planning and regulatory decisions for their respective regions. The RWQCBs have the authority to implement water quality protection standards through the issuance of permits for discharges to

waters at locations within their respective jurisdictions. Their jurisdiction also extends to discharge of wastes and wastewater to land, and to land disturbance, if the activities would affect the beneficial uses of surface water or groundwater.

Monterey County is within the jurisdiction of the Central Coast RWQCB. The Central Coast RWQCB has a water quality control plan for basins within its jurisdiction (*Central Coast Basin Plan*) that identifies beneficial uses of surface waters, establishes numeric and narrative objectives for the protection of beneficial uses, and sets forth policies to guide the implementation of programs to attain certain objectives.

Water pollution controls, including control of waste discharges to lands that might affect surface- and groundwater, as well as direct point source and diffuse or nonpoint source discharges, are primarily administered by the Central Coast RWQCB. Although the Central Coast RWQCB has many separate programs to help administer, monitor, and enforce its water quality protection authority, the primary programs include the NPDES program, the TMDL program, the Conditional Waiver Program for Agriculture, and the Watershed Management Initiative.

In addition to these programs, the Central Coast RWQCB often will take the lead in investigating and overseeing the cleanup of contaminated surface- and groundwater bodies resultant from spills and leaks. It is involved in the review and issuance of water quality certifications for Section 404 wetlands fill permit requests; provides comments to the State Department of Forestry on Timber Harvest Plan (THP) permit applications; and provides comments to the County and other state agencies on a variety of wastewater treatment, pollution control, development, and mineral resource extraction projects.

### **Conditional Waiver for Irrigated Agriculture**

The RWQCBs have the authority to regulate discharges of waste (such as fertilizer, pesticide, or sediment) that would affect state waters through permits called Waste Discharge Requirements (WDRs). RWQCBs also may conditionally waive WDRs for specific discharges or categories of discharges when it is in the public interest. In 2004, the Central Coast RWQCB adopted a new Conditional Waiver for Irrigated Agriculture, replacing an expired 1983 waiver.

The new conditional waiver was adopted in response to both changing legal requirements and a greater understanding and appreciation of water quality problems in irrigated agricultural areas throughout the region. Prior amendments to California Water Code Section 13269 caused all waivers of WDRs that existed on January 1, 2000, to expire on January 1, 2003, and required RWQCBs to review existing waivers at least every 5 years to renew, terminate, or adopt new waivers. In addition, many of the region's impaired water bodies with TMDL determinations run through agricultural lands, and many groundwater basins underlying agricultural areas show nitrate levels exceeding drinking water standards.

The conditional waiver is applicable to all irrigated lands used for producing commercial crops and requires each grower to:

- submit an NOI to comply with the terms of the waiver;
- complete 15 hours of farm water quality education within 3 years of adoption of the waiver;
- prepare and implement a farm plan for onsite water quality management, including business goals, site assessment, and practices planning; and
- perform individual water quality monitoring or participate in a cooperative monitoring program.

Based on the above requirements, there are two tiers of waivers for reporting frequency. Growers who have completed 15 hours of water quality education and a farm plan qualify for a Tier 1 waiver, requiring them to enroll and submit an updated management plan midway through the 5-year waiver cycle; all others fall under Tier 2 and must submit annual reports until they meet the education and farm plan requirements. Education requirements can be satisfied through courses certified by the Central Coast RWQCB, including the University of California Cooperative Extension's farm water quality short courses and courses through organizations such as the Central Coast Vineyard Team and RCDs. The Central Coast RWQCB certifies courses and evaluates educational availability on an ongoing basis.

The farm plan includes a detailed management practices checklist with four categories of water quality protection strategies: erosion control, irrigation management, pesticide management, and nutrient management. Growers also are required to conduct water quality monitoring and have the option to either perform individual monitoring or participate in a cooperative monitoring program, in which individual growers pool resources and conduct group monitoring. Under the conditional waiver, a group of 23 central coast agricultural organizations have agreed to implement the cooperative monitoring program.

When water quality problems are found where an agricultural facility is determined to be the source, the Central Coast RWQCB will help the facility to come into compliance or to implement alternate BMPs; issue a notice of violation or civil liability complaint; or, where compliance with waiver conditions will not adequately control the discharge, issue individual WDRs.

### **Watershed Management Initiative**

The Watershed Management Initiative (WMI) guides the water resources protection efforts of the State Water Board and RWQCBs. The WMI is designed to integrate various surface- and groundwater regulatory programs while promoting cooperative, collaborative efforts by various agencies and interest groups within a watershed. The WMI takes a watershed management approach for water resources protection by integrating point and nonpoint source discharges, ground- and surface water interactions, and water quality/water quantity relationships. The State Water Board has worked with individual



RWQCBs to identify the major watersheds in each region, prioritizing water quality issues, and developing watershed management policies focused on protecting beneficial uses of water.

Beyond the WMI, NPDES stormwater management, and TMDL programs, there is currently no state mandate to prepare more general or integrated watershed management plans for large (basin-scale) watersheds. In addition, local governments that provide or maintain within their boundaries underground drinking water supplies are responsible for developing wellhead protection programs. Wellhead protection programs (including local ordinances and land use control programs for lands immediately surrounding public water supply wells) focus on preventing groundwater drinking water supplies from being contaminated.

### **Watershed Management Plans**

The following watershed management plans have been developed for Monterey County.

#### **Salinas River Watershed Management Action Plan**

The *Salinas River Watershed Management Action Plan*, prepared in 1999 by the Central Coast RWQCB, outlines the watershed characteristics and management actions recommended to control point source and nonpoint source pollution within the Salinas River watershed. The upper watershed is mostly within San Luis Obispo County and overlies the Paso Robles groundwater basin, while the lower watershed extends from Bradley to Monterey Bay and overlies the Salinas Valley groundwater basin.

#### **Carmel River Watershed Assessment and Action Plan**

The *Carmel River Watershed Assessment and Action Plan*, prepared in 2004 by the Carmel River Watershed Conservancy, includes an assessment of existing conditions and water quality goals for the Carmel River watershed. The river's water quality and supply have been impaired, with issues regarding water quality and declining flows, lack of riparian habitat for native species, erosion, sediment transport, infiltration and runoff, and flooding/drainage. The plan contains a component with 23 action recommendations for watershed improvement, including habitat restoration, water supply, and groundwater management.

#### **Pajaro Watershed Water Quality Management Plan**

The *Pajaro Watershed Water Quality Management Plan*, coordinated by the Association of Monterey Bay Area Governments in 1999, is a comprehensive nonpoint source water quality improvement plan for the Pajaro River watershed, including: (1) identification and assessment of the most significant nonpoint source pollutant types and sources throughout the watershed, (2) identification of recommended strategies for minimizing nonpoint source pollution, and (3) a watershed-wide plan for implementation

of the recommended strategies. The project was facilitated through the Pajaro River Watershed Council, a watershed-wide coordinated resource management and planning group.

### **Pajaro River Watershed Integrated Regional Water Management Plan**

The *Pajaro River Watershed Integrated Regional Water Management Plan* (IRWMP) was a collaborative effort by the PVWMA, San Benito County Water District, and Santa Clara Valley Water District to identify regional and multibeneficial projects for the Pajaro River watershed. Completed in May 2007, the Pajaro River Watershed IRWMP presents the region's water resources management objectives and recommends four water management programs for addressing the highest priority needs: conjunctive water supply management, water supply/salt management, agricultural water quality, and flood protection. The IRWMP will be implemented by the member agencies in collaboration with the sponsors of the individual projects identified for each program.

### **Monterey Peninsula, Carmel Bay, and South Monterey Bay Integrated Regional Water Management Plan**

This IRWMP is coordinating the efforts of more than 30 public and private stakeholders within the watershed. Completed in November 2007, the IRWMP sets out regional goals for the Monterey Peninsula and recommends a number of projects and programs as regional priorities. These include, but are not limited to: lower Carmel River restoration and floodplain enhancement, water conservation retrofit program, and Seaside Basin groundwater replenishment. The IRWMP will be implemented by the member agencies in collaboration with the sponsors of the individual projects identified for each program.

### **Groundwater Management**

In California, surface water rights are regulated by the state, and groundwater is managed by a variety of local entities with a wide array of regulatory authority. Most local governments require well permits that primarily address groundwater quality issues and well construction requirements associated with groundwater. Historically, very few local governments, particularly counties, regulate or manage groundwater usage or withdrawals in order to broadly manage these water resources.

Generally, five methods for groundwater management have evolved over time. Groundwater management can be achieved by one of the following entities or methods.

### **Local Water Resource Agencies**

More than 20 types of local agencies are authorized by the California Water Code to provide water for various beneficial purposes. Many of these agencies also have statutory authority to institute some form of groundwater

management. Most of these agencies are identified in the California Water Code, but their specific authority related to groundwater management varies.

Local agencies within Monterey County with regulatory authority over water resources are listed below.

- Water Management Agencies
  - Monterey County Water Resources Agency
  - Monterey Peninsula Water Management District
  - Pajaro Valley Water Management Agency
- Water Purveyors
  - Aromas Water District
  - Pajaro-Sunny Mesa Community Services District
  - California Water Service Co.  
(Cal-Water), Salinas District
  - Alco Water Service
  - California American Water Co.  
(CalAm), Monterey District
  - Castroville Water District
  - Marina Coast Water District
  - Pebble Beach Community Services District
  - Carmel Area Water District
  - San Lucas County Water District
- Wastewater Management Agencies
  - Carmel Area Wastewater District
  - Salinas Valley Solid Waste Authority
  - Monterey Regional Water Pollution Control Agency
- Cities
  - City of Carmel-by-the-Sea
  - City of Monterey
  - City of Del Rey Oaks
  - City of Pacific Grove
  - City of Gonzales
  - City of Salinas
  - City of Greenfield
  - City of Sand City

- ❑ City of King City
- ❑ City of Seaside
- ❑ City of Marina
- ❑ City of Soledad

Although the County has the authority to initiate groundwater management, it does not have authority over the above agencies. However, the County would provide management in some areas through its various special water supply or wastewater districts. The County also would develop and implement groundwater management plans under Assembly Bill (AB) 3030 (California Water Code Section 10753).

### **Groundwater Rights**

In general, the state does not regulate groundwater rights. Counties can enact an ordinance to ensure that wells developed on one property do not interfere with the use of adjacent wells. In some areas of overuse, and where there is a high dependence on groundwater, groundwater rights are determined judicially in what are termed “adjudicated” groundwater basins. The Seaside groundwater basin (Coastal and Laguna Seca Subareas) is the only adjudicated groundwater basin in Monterey County.

As discussed above, Carmel Valley is under State Water Board Order WR 95-10, due to overdraft impacts on the Carmel River riparian corridor and associated wildlife, thereby requiring Cal-Am to obtain alternate water supply sources. In response to this order, Cal-Am filed a lawsuit to adjudicate the rights of the various groundwater pumpers of the Seaside basin aquifer, where there is also concern about sustainable yield (refer to discussion in Section 4.3, Water Resources, Water Rights Conflicts).

### **Groundwater Adjudication**

Another form of groundwater management in California is through court adjudication. The groundwater rights of all overlying property owners and appropriators are determined by the court in basins where a lawsuit is brought to adjudicate the basin. The court also decides who the extractors are, how much groundwater those well owners can extract, and who the “watermaster” will be to ensure that the basin is managed in accordance with the court’s decree. The watermaster must report periodically to the court. Such adjudications are difficult to achieve, costly, time-consuming, and divisive. The Seaside groundwater basin is the only adjudicated groundwater basin in Monterey County.

Legal action is taken sometimes when stream diversion or groundwater mining directly or indirectly affects stakeholders along waterways. Stakeholders include owners and tenants next to waterways; private, municipal, industrial, and agricultural consumers; and private and public interest groups. A common cause of litigation is the habitat rights of fish.

Flow diversion or over-pumping in an aquifer, or both, may lead to declining surface flows and associated degradation of fish habitat. One such case was brought against Cal-Am and affects the Seaside groundwater basin (see the discussion of “Carmel River Conflicts,” above).

### **Groundwater Management Agencies**

Thirteen California groundwater management agencies have been directly authorized by special state legislation. These entities vary significantly as far as why they were created, how they are managed, and what authorities are granted in each case. There are three such agencies in Monterey County: The MCWRA, the PVWMA, and the MPWMD. As previously discussed, these agencies have somewhat overlapping areas of authority and therefore must closely coordinate their programs and policies. More detailed discussion of each agency is provided in the section about local agencies below.

The MPWMD is the groundwater management agency on the peninsula, authorized by the state to augment the water supply through integrated management of surface- and groundwater resources. The PVWMA has legislative authority to manage groundwater actively and, in certain circumstances, to levy an extraction charge on groundwater use in the North County and in the Pajaro River area near Watsonville. Over a wider area, and especially in the Salinas Valley, the MCWRA is responsible for managing groundwater resources.

### **Assembly Bill 3030 Groundwater Management Plans**

The 1992 Groundwater Management Act (California Water Code Section 10750), commonly referred to as AB 3030, was designed to provide local public agencies in California with increased management authority over groundwater resources. AB 3030 allows, but does not require, local water providers to develop a groundwater management plan for DWR-defined groundwater basins. These plans can involve collaboration among numerous agencies and thus offer opportunities for local governments to participate in groundwater management planning in cooperation with water providers. No new level of government is formed under AB 3030, and action is voluntary rather than mandatory. The plan is only prepared following a public hearing and the adoption of a resolution (barring a majority of opposition).

The California Water Code also provides that a groundwater management plan may include any one or all of the following technical components: control of saline water intrusion, management of wellhead protection areas and recharge areas, well abandonment, conditions of overdraft, conjunctive use operations, groundwater contamination cleanup, and water recycling and extraction.

The MPWMD is in the process of preparing a long-term *Seaside Basin Groundwater Management Plan* following AB 3030 guidelines. Other

jurisdictions have typically included aspects of groundwater management in their watershed management or stormwater management plans, or refer to the *Central Coast Basin Plan*, as well as plans devoted to a particular resource, such as the Carmel or Salinas Rivers.

Both the MCWRA and the PVWMA have completed and adopted detailed basin management plans that, although not submitted to DWR as formal AB 3030 groundwater management plans, describe the management actions and capital improvement projects they will undertake to bring their respective basins into water supply/consumptive use balance over the long term.

## **Timber Harvest Management**

The harvesting of timber for commercial purposes is regulated by the California Department of Forestry and Fire Protection (CDFFP). Timber operations are permitted by the CDFFP pursuant to the Z'berg-Nejedly Forest Practice Act (Public Resources Code Section 4511, et seq.) and the Forest Practice Rules (14 CCR 895 et seq.). Timber operations are primarily addressed at the state and regional level through the THP review program, including the timberland conversion rules. The CDFFP, in consultation with the RWQCB and the California Department of Fish and Game (CDFG), administers this program.

THPs are comprehensive, detailed plans for the sustainable harvesting of timber, describing the timber to be harvested, harvesting methods to be used, and environmental impacts of the activities proposed under the THP. A THP is prepared by a registered professional forester on behalf of the landowner and must include mitigation measures to reduce its environmental impacts. THPs are subject to review, revision, and approval by the CDFFP. The County, interested members of the public, and state and federal agencies, including the RWQCB and DFG, are afforded the opportunity to comment on THPs during the review and approval process. CDFFP must consider the comments received, particularly where the comments relate to potential environmental effects.

## **Surface Water Rights**

The State Water Board has jurisdiction over surface water rights in the State of California under the common law public trust doctrine. The California Water Code Section 1735 provides the regulatory framework for long-term transfers, subject to the requirements of CEQA.

Appropriative water rights allow the diversion of surface water for beneficial use. Prior to 1914, appropriative water rights involved a simple posting to describe intent and scope of water use, diversion, or construction of diversion activities. Since 1914, the sole method for obtaining appropriative water rights is to file an application with the State Water Board. Before it can issue a water rights permit, the State Water Board must demonstrate the availability of unappropriated water.

Both pre- and post-1914 appropriative water rights may be lost if the water has gone unused for a period of 5 years.

Riparian water rights apply only to lands that are traversed by or border on a natural watercourse. Riparian owners have a right (correlative with the right of each other riparian owner) to share in the reasonable beneficial use of the natural flow of water that passes the owners' lands. No permit is required for such use. Riparian water must be used reasonably, beneficially, and solely on riparian (adjacent) land and cannot be stored for later use.

## **Urban Water Management Planning Act**

The Urban Water Management Planning Act requires that each urban water supplier that provides water for municipal purposes to 3,000 or more customers, or more than 3,000 AFY, must submit to DWR an Urban Water Management Plan (UWMP). The UWMP must summarize existing and planned sources of water supply, identify current and projected water usage or demand, and include a discussion of 14 specified demand-management (e.g., water conservation) measures. The following is a list of UWMPs within Monterey County:

- Alisal Water Corporation (Alco)—not submitted.
- California American Water, Monterey District (Cal-Am)—submitted to DWR in July 2006.
- California Water Service Co., Salinas District (Cal-Water)—not submitted.
- Marina Coast Water District (MCWD)—submitted to DWR in January 2006.

The remaining water purveyors in Monterey County are small districts that do not meet the volume criteria for preparation of UWMPs.

## **Agricultural Water Conservation and Management Act**

The Agricultural Water Conservation and Management Act establishes a relationship between DWR and agricultural water suppliers to develop and implement efficient water management practices. The legislation that took effect in January 2002 requires an increased effort to identify and assess the reliability of anticipated water supplies and envisions an increased level of communication between municipal planning authorities and local water suppliers.

## **California Senate Bills 901, 221, and 610**

California SB 901 of 1995 required local planning agencies to consider the availability of water prior to approving any major new project. However, the bill provided little direction for the water supply assessment, planning agencies retained the authority to approve a project whether or not water availability was

firmly established, and the assessment was solicited only if the project resulted in an increase in population density or building intensity. These concerns led to the passage in 2001 of SB 221 and SB 610, which require specific documentation by the local water provider of water availability prior to project approvals.

SB 610<sup>1</sup> and SB 221<sup>2</sup> require a more formal and detailed analysis, including answers to such questions as: Where is the water coming from in normal, dry, and multiple dry years? Has the water supplier accounted for the demands in its planning documents? What right does the water purveyor have to the water? What is the condition of regional groundwater aquifers? Who else is competing for the water?

SB 610 is imposed through CEQA and accordingly has broader applicability than SB 221. All projects that are subject to CEQA and that meet any of the following criteria require the assessment:

- Proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The water supplier must prepare and approve a water supply assessment, using a UWMP as its primary planning tool, if available. If the demands expected from the development are accounted for in the UWMP, the UWMP may be used to establish supply availability under normal and drought conditions. If the project would exceed documented supplies, the assessment must describe the source of the new water supply.

SB 221 has similar requirements. It applies to tentative subdivisions maps creating 500 lots or more. A project cannot be approved if the SB 221 water supply verification finds water supplies inadequate, unless the city or county

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<sup>1</sup> An act to amend Section 21151.9 of the Public Resources Code, and to amend Sections 10631, 10656, 10910, 10911, 10912, and 10915 of, to repeal Section 10913 of, and to add and repeal Section 10657 of, the Water Code, relating to water.

<sup>2</sup> An act to amend Section 11010 of the Business and Professions Code, and to amend Section 65867.5 of, and to add Sections 66455.3 and 66473.7 to, the Government Code, relating to land use.



specifically finds that water sources not identified by the water supplier will be available.

## State Drinking Water Quality Regulations

The DPH is responsible for regulating public water systems and small water systems and monitoring them for compliance with the California Water Code and national standards for drinking water quality. Public water systems are defined as systems that provide water to 15 or more service connections or regularly serve at least 25 individuals daily at least 60 days of the year. Small water systems serve at least 5 but not more than 14 connections and do not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year. The DPH is responsible for the issuance of operational permits, routine water system inspections, evaluation of water quality monitoring data, and follow-up compliance activities for these systems.

Under Water Code Section 350, DPH can direct that a water supplier (both public and private) declare a water supply emergency, either on a short-term basis (during an extended drought) or on a long-term basis (where there is evidence that the available water supply may not be able to meet existing public needs—especially for drinking water, sanitation, and fire protection). In these situations, moratoria on new public water connections may be ordered until an adequate supply is ensured.

## Septic System Regulations

In California, all wastewater treatment and disposal systems, including individual septic systems, fall under the overall regulatory authority of the State Water Board and the nine RWQCBs. The RWQCBs' involvement in regulation of onsite systems most often concerns the formation and implementation of basic water protection policies. These are reflected in the regional basin plans, generally in the form of guidelines, criteria, or prohibitions related to the siting, design, construction, and maintenance of onsite systems. The RWQCBs generally delegate regulatory authority for septic systems to counties, cities, or special districts, subject to the condition that the local agency commits to enforcing the minimum requirements contained in the basin plan policies.

The Central Coast RWQCB has adopted policies and requirements pertaining to onsite systems that are contained in the *Central Coast Basin Plan*. The onsite systems element of the Basin Plan sets forth various objectives, guidelines, general principles, and recommendations for the use of onsite systems that cover various topics related to siting, design, construction, operation, maintenance, and corrective/enforcement actions. In Monterey County, the Central Coast RWQCB issues WDRs (described above) for all major point source discharges, such as municipal wastewater treatment plants and package wastewater treatment plants. All of Monterey County's treatment plants, including those operated by municipalities or wastewater management districts, are regulated under a WDR.

Onsite sewage disposal systems in Monterey County are regulated by the County's Environmental Health Division. Monterey County regulations for onsite sewage disposal systems are contained in Chapter 15.20 of the Monterey County Code, the sewage disposal ordinance. Regulations set forth specific requirements related to permitting and inspection of onsite systems; septic tank design and construction; drywell and disposal field requirements; and servicing, inspection, reporting, and upgrade requirements. Additional requirements for onsite systems in Monterey County are adopted as part of community plans or as project-specific mitigation measures or conditions applied to development proposals lying within a designated Special Problem Area of the county. In general, soil percolation rates are required to be no less than 1 inch per hour for an area to be considered suitable for a septic tank leachfield system.

Regulations in Monterey County also require that any person or firm that engages in the business of cleaning septic tanks, chemical toilets, cesspools, or sewage seepage pits possess a valid registration issued by the local health officer or their authorized representative.

### **Assembly Bill 885 Onsite Wastewater Treatment System Regulations**

In 2000, the California State Legislature passed AB 885 (California Water Code Sections 13290–13291.7), which requires the State Water Board, in consultation with various agencies and stakeholders, to develop statewide regulations for onsite wastewater treatment systems (OWTS). In March 2007, the State Water Board released a draft of the OWTS regulations, which contain “minimum requirements for the permitting, monitoring, and operation of OWTS for preventing conditions of pollution and nuisance.” The regulations would be implemented through conditional waivers of WDRs by the State Water Board or RWQCBs.

The draft regulations dictate that new and replaced OWTS be operated to accept and treat flows of domestic wastewater (e.g., toilet flushing, food preparation, laundry, household cleaning, and personal hygiene) and be designed to disperse effluent to subsurface soils in a manner that maximizes unsaturated zone treatment and aerobic decomposition of the effluent. The draft regulations contain performance requirements and specifications for the OWTS systems and supplemental treatment components. As of spring 2008, the draft regulations are still under consideration and public review.

### **4.3.3.3 Local Regulations**

A number of agencies manage water resources within Monterey County. The Monterey County Water Resources Agency (MCWRA) oversees management of the water resources. Among its responsibilities is the Salinas Valley Water Project. On the Monterey Peninsula area, the Monterey Peninsula Water Management District (MPWMD) has authority over local issues related to water supply. Together, MCWRA and the Monterey Regional Water Pollution Control Agency (MRWPCA) oversee the Monterey Regional Water Recycling Projects,

which consist of a reclamation plant and a 45-mile distribution system known as the Castroville Seawater Intrusion Project (CSIP). The Pajaro Valley Water Management Agency (PVWMA) has authority over water supply issues in the Pajaro River basin, which includes parts of both Monterey and Santa Cruz Counties. The Marina Coast Water District (MCWD) supplies water to the City of Marina and the former Fort Ord.

There are also a number of private and public water suppliers in the unincorporated area. The major providers are Cal-Am on the Monterey Peninsula, Cal-Water in the Salinas Area, and the Castroville and Pajaro/Sunny Mesa Water Districts in the North County area. The vast majority of the county's water supply is pumped from groundwater and is allocated for agricultural use.

Except for water quality issues, most of the regulations affecting water resources (both surface water and groundwater) are contained in the Monterey County Code and related ordinances, with code enforcement primarily by the MCRMA, MCWRA, and MCHD.

Primary regulatory authority is within the MCWRA and the Environmental Health Division of Monterey County Health Department (MCHD), both of which enforce the County codes. The MCRMA administers the County's permit and planning functions. Surface- and groundwater within certain areas of the county are managed by the MPWMD and the PVWMA, in addition to the MCWRA. These and other agencies with regulatory authority are summarized below.

## **Monterey County Water Resources Agency**

The MCWRA, formerly called the Monterey County Flood Control and Water Conservation District, oversees the development and implementation of water quality, water supply, and flood control projects in Monterey County. Primary responsibilities are the management of water supply resources in the reservoir system, including San Antonio and Nacimiento Reservoirs, and permitting and development of the SVWP. As the local administrator of the NFIP, the MCWRA manages floodplain development and implements activities associated with the community rating system. The MCWRA also oversees resources and development of the Salinas River channel and develops and implements various water quality monitoring programs. Maintaining high water quality standards for both supply and environmental habitat are major goals of the agency. Goals are achieved through development and implementation of water quality programs, such as those designed to evaluate and develop strategies for reducing contamination of waterways from chemicals used in agriculture and agricultural waste products, and those for overall watershed protection in reservoir areas.

The Monterey County Water Resources Act, codified in Chapter 52 of the Statutes of 1991, authorizes the MCWRA to develop, maintain, and preserve certain water resources, including the following rights.

- Store water in surface or underground reservoirs within or outside of the agency.
- Conserve and reclaim water for present and future use within the agency boundaries.
- Appropriate and acquire water and water rights, and import water into the agency and conserve water within or outside of the agency, for any purpose useful to the agency.
- Prevent interference with or diminution of, or to declare rights in, the natural flow of any stream or surface or subterranean supply of water used or useful for any purpose of the agency or of common benefit to the lands within the agency or to its inhabitants.
- Prevent contamination, pollution or otherwise rendering unfit for beneficial use the surface or subsurface water used or useful in the agency's boundaries, and commence maintain, and defend actions and proceedings to prevent any interference with those waters which endangers or damages the inhabitants, lands, or use of water in, or flowing into, the agency.
- Control the flood and storm waters of the agency and the flood and storm waters of streams that have their sources outside of the agency but which flow into the agency, and conserve those waters for beneficial and useful purposes of the agency by spreading, storing, retaining, and causing to percolate into the soil within or outside the agency, or save or conserve in any manner all or any of those waters and protect from damage from those flood or storm waters the watercourses, watersheds, public highways, life and property in the agency, and the water courses of streams outside the agency flowing into the agency.
- Cooperate with county, state and federal, public and private organizations in the construction of any work for the controlling of flood or storm waters.
- Carry on technical and other necessary investigations, make measurements, collect data, make analyses, studies and inspections pertaining to water supply, water rights, control of flood and storm waters, and use of water both within and without the agency relating to watercourses or streams flooding in or into the agency. For these purposes, the agency has the right of access to all properties within the agency and elsewhere relating to watercourses or streams flooding in or into the agency.
- Enter upon any land, to make surveys and locate the necessary works of improvement and the lines for channels, conduits, canals, pipelines, roadways, and other rights-of-way.
- Acquire by purchase, lease, contract, gift, devise or other legal means lands and water and water rights or other property necessary or convenient for the construction, use supply maintenance, repair, and improvement of those works.
- Acquire the right to store water in any reservoirs, or carry water through any canal, ditch, or conduit of the agency.

- Grant to any owner or lessee the right to the use of any water or right to store water in any reservoir of the agency, or to carry water through any tunnels, canal, ditch, or conduit of the agency.
- Develop agreements for the transfer or deliver to any district, corporation, association, or individual of any water right or water pumped, stored, appropriated, or otherwise acquired or secured, for the use of the agency, of for the purpose of conserving the waters for beneficial use within the agency, or for the protection, enhancement, and use of groundwater within the agency.
- Issue bonds and cause taxes or assessments to be levied in order to pay any obligation of the Agency and carry out any purposes of the Act.
- Buy, provide, sell, and deliver water.
- Develop and distribute water to persons in exchange for ceasing or reducing groundwater extractions, and prevent groundwater extractions, which are deemed to be harmful to the groundwater basin.
- Transport, reclaim, purify, desalinate, treat, or otherwise manage and control water for the beneficial use of persons or property within the agency.
- Provide, generate, sell, and deliver hydroelectric power.

Although responsibilities for stormwater management within the unincorporated county are spread across several different jurisdictional entities, flood control within specific benefit assessment zones is the responsibility of the MCWRA.

The MCWRA performs three services related to flood control. Flows in the Salinas River, along its entire length through the county, are regulated by operation of Nacimiento and San Antonio Dams. These operations are engineered to maintain adequate storage space in order to simultaneously store winter water for summer release for groundwater recharge and to provide some flood control. Nevertheless, some storm events that reach the 100-year level will still cause flooding in the Salinas Valley basin.

The MCWRA also maintains an alert system to monitor rainfall intensity flow rates along the Salinas River and its tributaries as storm events take place. The alert system allows the MCWRA to collect data on rainfall and stream conditions and to provide a system of early flood warning (flood alert) throughout all of Monterey County. This information also may be useful for improving groundwater management.

Thirdly, the MCWRA performs maintenance of many of the irrigation ditches and channels that drain the Salinas Valley. Regular clearing of debris and overgrown vegetation is performed to maintain the channels' ability to convey floodwaters. In the past, the MCWRA performed this role for the Carmel Valley basin as well as the Salinas Valley basin. Recently, the agency discontinued maintenance in the Carmel Valley basin because of discontinued funding.

An example of the MCWRA's role in flood control is the Salinas River and Arroyo Seco Channel Maintenance Program. Flooding along the Salinas River during spring 1995 resulted in damage of an estimated 30,000 acres of Salinas Valley farmland and permanent loss of 1,100 acres of prime agricultural land to erosion. Farmers and property owners along the river and agencies involved in flood control concluded that management and maintenance of the dry river channel would be the most effective, long-range solution to prevent future crop and property loss from flooding. In response, the USACE issued a permit to MCWRA to repair eroded banks and levees; remove sandbars, vegetation, and debris from the river; and construct pilot channels. This permit expired in January 1996, before all work was completed, but was followed by a second permit to allow farmers and property owners to mechanically remove vegetative obstructions and debris from the channel and relocate or remove sandbars and silt deposits. This second permit expired on December 31, 2001, but the MCWRA obtained a new 5-year Section 404 Regional General Permit to continue the Channel Maintenance Program.

## Monterey County Health Department

The MCHD is responsible for the enhancement, promotion, and protection of the health of Monterey County's individuals, families, communities, and environment. With regard to water resources, the MCHD and its agent, the director of environmental health, is responsible for drinking water protection, including:

- the Collaborative Aquifer Protection Program (CAPP), a program to identify and destroy abandoned wells in order to improve groundwater management, in association with MCWMA and PVWMA;
- the Cross-Connection Control Program, to monitor and eliminate cross-connections between drinking water and other water lines, such as irrigation or wastewater;
- regulation of desalination treatment facilities;
- conducting drinking water source assessment and protection, to provide information on contaminants in drinking water and water supply;
- regulation of drinking water systems, including more than 1,250 individual water systems, each serving from 2 to 199 connections (includes permitting, construction oversight, and monitoring);
- regulation of local small water systems serving 2 to 4 residential units, including permitting, inspection, and monitoring;
- review of operation and maintenance for community water systems;
- public water system (15 or more connections) (includes permitting, inspection, and monitoring);
- state small water systems (5 to 14 connections) (includes permitting, inspection, and monitoring);

- water quality monitoring program, including water sampling and analysis; and
- well construction/repair/destruction, including permitting and monitoring of well applications, construction, and destruction to protect groundwater.

The MCHD also administers hazardous waste programs (including monitoring wells), review of septic and wastewater plans for proposed projects, and solid waste management.

## **Monterey Peninsula Water Management District**

The MPWMD was formed in 1978 to augment the water supply and manage water resources for communities on the Monterey Peninsula, including Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Seaside, Sand City, the Monterey Peninsula Airport District, and portions of unincorporated Monterey County (including Pebble Beach and Carmel Valley). The MPWMD was created following the drought of 1976–1977 in recognition of the need for conservation and augmentation of water supplies on the Monterey Peninsula. The MPWMD's enabling legislation provides authority for integrated management of the groundwater and surface water resources within the Monterey Peninsula area, encompassing the waters of the Carmel Valley and Seaside groundwater basins. The MPWMD's integrated management responsibilities include control over both water supply and demand, causing the MPWMD to act both as a planning agency and a regulatory body.

In addition to groundwater and surface water management, the MPWMD is responsible for water conservation, protection of local water supply, and working with local water suppliers to manage water resources and distribution. The MPWMD manages the production of water from two sources: surface water from the Carmel River stored in San Clemente and Los Padres Reservoirs, and groundwater pumped from municipal and private wells in Carmel Valley and the Seaside coastal area basin.

Over-pumping and flow diversion in the area of the lower Carmel Valley aquifer has caused significant dewatering of the Carmel River and has become a major political and environmental issue. Declining water levels in the river may adversely affect species considered threatened under the federal Endangered Species Act (central coast steelhead and California red-legged frogs) and may endanger the riparian habitat. In order to protect these environmental resources, a comprehensive management plan was deemed necessary to both meet water supply demands and protect aquatic and riparian habitat. The MPWMD has studied more than 70 alternatives to develop a water supply project for area rivers and has implemented an environmental mitigation program along the Carmel River.

## **Pajaro Valley Water Management Agency**

The PVWMA is a state-chartered local agency, created in 1984 to manage existing and supplemental water supplies to reduce long-term overdraft and to provide sufficient water supplies for present and anticipated needs within the boundaries of the agency. The PVWMA's jurisdictional boundary encompasses a portion of southern Santa Clara County, the Pajaro Valley area, and the Highlands North and Springfield Terrace planning area subbasins in North County. The PVWMA is responsible for developing and using supplemental water and available underground storage to manage the groundwater supplies.

PVWMA has studied the issues of overdraft, storage depletion, and seawater intrusion for many years. Major agency projects include implementation of the 2002 *Revised Basin Management Plan*, including the Watsonville Area Water Recycling Project and the 23-mile import pipeline to provide sufficient water resources for agricultural uses and reduce saltwater intrusion into coastal wells (Pajaro Valley Water Management Agency 2008b). However, the pipeline project has largely stalled over the high price of the pipeline and the lack of opportunities to obtain Central Valley Project or other inland supply contracts.

The Pajaro Valley water projects have the potential to resolve much of the supply problem facing North County and the Pajaro Valley basins. However, a regional solution will be necessary to solve these problems. The combined projects and the cooperation of the MCWRA, the PVWMA, and the public are key to the resolution of the needs of the area.

## **Monterey County Resource Management Agency**

The MCRMA was formed in 2005 to optimize the County's delivery of land use-related services, including planning, environmental review and permitting, plan check and permitting, zoning enforcement, redevelopment, housing, public works and facilities, land surveying and design, water and sanitation system management, and design and construction of public buildings. The MCRMA is organized into four divisions: the Planning Department, the Building Services Department, the Public Works Department, and the Housing and Redevelopment Office. The Planning Department is responsible for coordinating the review of all applications for land use entitlements in the county, in coordination with the Public Works Department, the MCHD, the County Parks Department, and the agricultural commissioner. The Building Services Department is responsible for most of the code enforcement related to land use and development related to water resources, including residential development, grading, and land subdivision regulation and enforcement. Sewer connection permits are processed by the Public Works Department.



## **Fort Ord Reuse Authority**

The Fort Ord Reuse Authority (FORA) has a 6,600-AFY allocation from the MCWRA to serve the development proposed in the 1997 *Fort Ord Reuse Plan*. The former Fort Ord has been annexed into Zone 2A of the MCWMA. Full implementation of the plan would require approximately 17,000 AFY and would require participation in supplemental water supply projects proposed by the MCWMA. Wastewater treatment is provided at the MRWPCA plant.

## **Monterey County Local Agency Formation Commission**

Under the Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Section 56000 et seq.), the Monterey County Local Agency Formation Commission (LAFCO) is responsible for coordinating logical and timely changes in local governmental boundaries. Responsibilities include annexations and detachments of territory; incorporations of cities; formations of special districts; consolidations, mergers, and dissolutions of districts; and reviewing ways to reorganize, simplify, and streamline governmental structure. The County LAFCO also prepares Municipal Service Reviews (MSRs) for each agency to determine the availability of services, efficiency of delivery, and opportunities for greater efficiencies. Where applicable, the MSR, based on information gathered from local water service providers, will assess each provider's ability to provide for existing and future water needs.

## **Monterey County Code**

The Monterey County Code, including various ordinances, provides the regulatory framework for implementing the County 2007 General Plan policies and programs. Except for water quality issues, most of the regulations affecting water resources (both surface water and groundwater) are contained in the Monterey County Code and related ordinances, with code enforcement primarily by MCWRA and Monterey County Health Department (MCHD).

The Monterey County Code, including various ordinances, provides the regulatory framework for implementing the 2007 General Plan policies and programs. Title 15 of the Monterey County Code (Public Services), addresses domestic water systems, well construction, water conservation, wastewater and sewage disposal, and discharge to streams.

### **Grading**

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.

Work in Salinas River and Arroyo Seco River channels is exempted if it is covered by a USACE 5-year regional Section 404 permit, approved by the CDFG, and approved by the MCWRA. All other work requires a separate permit from these agencies, subject to environmental review.

### **Drainage**

Drainage, and the preparation of design improvement plans to control runoff and prevent erosion, is regulated under Chapter 19.10, regarding subdivision improvements. Improvement plans for drainage and runoff control are subject to the approval of the MCWRA in accordance with the MCWRA design criteria. Drainage is also regulated in the grading ordinance (Chapter 16.08 of the Monterey County Code), erosion control ordinance (Chapter 16.12), Floodplain Development (Chapter 16.16), and Subdivisions and Improvement Plans (Chapters 19.03, 19.04, 19.05, 19.07, and 19.10). Drainage management associated with intensive agricultural uses and grazing is regulated in Chapter 21.32 of the Monterey County Code. Chapter 21.66 regulates drainage, groundwater, and surface water conditions associated with hazardous geologic and other areas.

### **Erosion Control**

Chapter 16.12 of the Monterey County Code establishes erosion control regulations for Monterey County. The purpose of the erosion control ordinance is to “eliminate and prevent conditions of accelerated erosion that have led to, or would lead to, degradation of water quality, loss of fish habitat, damage to property, loss of topsoil or vegetation cover, disruption of water supply, or increased danger from flooding.” It “requires the control of all existing and potential conditions of accelerated (human-induced) erosion, sets forth required provisions for project planning, preparation of erosion control plans, runoff control, land clearing, and winter operations.” Erosion control measures specified in the ordinance must be in place and maintained at all times between October 15 and April 15. The ordinance specifies fines for any person causing or allowing the continued existence of a condition of accelerated erosion, as determined by the director of building inspection.

Prior to permit issuance for building, grading, or land clearing, an erosion control plan following the ordinance’s guidelines must be submitted to MCRMA. The plan must show methods for control of runoff, erosion, and sediment movement. Erosion control plans also may be required for other types of applications where erosion can reasonably be expected to occur. Routine agricultural operations need not submit these plans. Development and related construction activities, such as site cleaning, grading, and soil removal or placement that causes a

permanent change to existing site conditions, are generally prohibited on slopes greater than or equal to 30% (greater than 25% within the North County's Coastal Zone).

Erosion also is regulated in the grading ordinance (Chapter 16.08, discussed above), Floodplain Regulations (Chapter 16.16), Preservation of Oak and Other Protected Trees (Chapter 16.60), Protection of the Pajaro River Banks (Chapter 16.65), and Subdivisions/Tentative Maps (Chapters 19.03, 19.05, 19.07, and 19.10), and is regulated within visually sensitive areas (Chapter 21.46). Finally, erosion is regulated in Chapter 16.04, Surface Mining and Reclamation, and subject to review and approval by the State Department of Conservation.

### **Hydrology and Hydrogeology**

Surface water is regulated under Monterey County Code Title 19, the subdivision ordinance. Chapters 19.03, 19.05 and 19.07 of the code regulate subdivisions, land divisions, and other development. The code requires submission of verification of legal rights to water supply; evaluation of site hydrology, hydrogeology, surface and groundwater resources, water balance, and long-term safe yield of the aquifer if development occurs; and analysis of potential changes in water usage due to subdivision development.

All departments of the County enforce the subdivision ordinance, and verification of water resources is also subject to review by the director of environmental health.

### **Flood Control and Floodplain Management**

Chapters 16.16 and 21.64 of the Monterey County Code contain regulations regarding floodplain development. These sections discuss general and specific standards to prevent flood damage within the county. Such measures apply to all development within SFHAs in the county, as identified on FEMA FIRMs. Monterey County floodplain management regulations are based on the model FEMA program; however, the County has adopted regulatory standards that exceed the minimum federal requirements. County regulations prevent the placement of fill, buildings, and other obstructions in regulatory floodways (the zone along a channel where flow moves with depth and velocity and where obstructions can cause the most damage) and require buildings located in SFHAs to be elevated a minimum of 1 foot above the 100-year flooding elevation.

Chapter 21.64.130 regulates land use in the Carmel Valley floodplain, including development within 200 feet of the Carmel River and lands within the 100-year floodplain, floodway, and floodway fringe as defined on FEMA maps. The general manager of the MCWRA and the director of planning and building inspection have regulatory authority.

Chapter 16.16 regulates development in all SFHAs within the jurisdiction of Monterey County and areas within 200 feet of rivers or within 50 feet of watercourses. The general manager of the MCWRA has regulatory authority.

### **Carmel Valley Floodplain**

The zoning ordinance establishes restrictive regulations that prohibit development within 200 feet of the bank, floodway, or riparian corridor of the Carmel River (Chapter 21.64.130). This ordinance is intended to stabilize the river channel, greatly reducing erosion potential, as well as ensure that structures are not built within the flood zone.

### **Coastal Areas**

The adopted coastal implementation plans regulate land development in the Coastal Zone. Because the proposed 2007 General Plan amendment does not affect the existing Local Coastal Program (LCP) and its component Local Coastal Plans, the coastal implementation plans are not pertinent to the project.

### **Drinking Water**

#### Domestic Water Systems

Title 15 of the Monterey County Zoning Code regulates public services. Chapter 15.04 of the County Code regulates the construction, installation, maintenance, and repair of domestic water systems. The purposes of the chapter are to: (1) regulate construction, installation, maintenance and operation of domestic water systems which have from 2 to 199 service connections; (2) supplement minimum state laws and standards for construction, installation, maintenance, and operation of state small water systems and; (3) regulate the quality and quantity of water supplied to and by such water systems, thereby promoting the public health, safety, and welfare. The ordinance requires permits for domestic systems to be obtained from the County Director of Environmental Health. The MCHD may issue the permit if it finds that (Section 15.04.050):

- there is a person who, at all times, will be available and legally responsible for the proper performance of the system;
- water service for the proposed water system is not available from a public, private, or mutual water system, thereby demonstrating the necessity of formation of an additional water system;
- the water supplied is pure, wholesome, and potable;
- the system supplies the minimum quantity of water required in the ordinance (6 to 12 gallons per minute, depending on the number of service connections); and
- the supply system complies with the design and construction standards described in the ordinance.

As part of the permit approval, water for the system must be subjected to approved bacteriological and chemical tests at the expense of the applicant. Tests must demonstrate that the water falls below the limiting concentrations given in the ordinance for such parameters as inorganic and organic chemicals, radioactivity, metals, total dissolved solids, and chloride. Bacteriological analysis must be performed on the water at least every 6 months and the results filed with the MCHD.

Design and construction standards outlined in the ordinance include required operating pressures, pumping plants, and pipe specifications. Wells must meet state standards (see above) and the standards of the local well ordinance (see below). Operators of domestic water systems must apply to the MCHD for an amended permit prior to making any modifications to their systems. The MCHD may suspend or revoke permits for systems if conditions of the permit are not being met or if the water becomes unpotable.

### **Water Conservation**

Water conservation is regulated in Chapter 15.12 of the County Code (Ordinance 2181, 1976), which contains findings that there is water demand in excess of available supply on the Monterey Peninsula and that new water service facilities should be regulated. These special provisions apply in MCWRA's Zone 11. In this area "waste" of water is prohibited, requiring the use of low-flow toilets, metering faucets, low-pressure piping, and recycling air conditioners; and prohibiting non-recirculating water features such as fountains and pools.

MCWRA Ordinance 3359, adopted in 1991, defines BMPs and xeriscape principles, and clarifies variance procedures. The purpose of the ordinance is to "bring about public awareness of the need for water conservation, to provide for conservation regulations that will permanently reduce or eliminate waste of water in all areas of Monterey County, and to require the adoption of substantially similar or more restrictive regulations in all jurisdictions of the county."

MCWRA Ordinance 3932 (Appendix B) enacted mandatory water conservation regulations. The purpose of the ordinance is to "bring about public awareness of the need for water conservation, to provide for water conservation regulations that will permanently reduce or eliminate waste of water in all areas of Monterey County, and to require the adoption of substantially similar or more restrictive regulations in all jurisdictions of the county..." Mandatory restrictions on water waste, as enforced by MCWRA, are summarized below:

- Steps must be initiated to repair any broken, leaking or defective plumbing, sprinkler or irrigation system within 72 hours after first learning of the problem, and repair work must be diligently pursued to completion.
- Hoses used for washing vehicles must be equipped with a shutoff nozzle.
- Hoses used with potable water for washing the exterior of buildings or any other structure must be equipped with a shutoff nozzle.
- Potable water through a hose may not be used to clean any sidewalk, driveway, roadway, parking lot, or any other outdoor paved or hard-surfaced area, except where necessary to protect public health and safety.

- Water must not be allowed to spill into streets, curbs or gutters, and water may not be used in any manner, which results in runoff beyond the immediate area of use.
- Swimming pools and spas may not be emptied and refilled except to prevent or repair structural damage or to comply with public health regulations.
- Water may not be used to operate or maintain levels in decorative fountains, unless water is recycled in the fountain.
- Visitor-serving facilities must display signs promoting water conservation and/or advising that public waste of water is prohibited.
- All public and quasi-public entities must display signs in restrooms, kitchens, and dining areas promoting water conservation and/or advising that public waste of water is prohibited.
- Commercial car wash facilities may only use the following methods:  
1) Mechanical automatic car wash facilities using water-recycling equipment, 2) hoses which operate on timers for limited periods and then shut off automatically, 3) hoses equipped with automatic shutoff nozzles, or 4) bucket and hand washing.
- Potable water may not be used for compaction or dust-control purposes in construction activities where there is a reasonable source of nonpotable water available. All hoses used in construction activities must have shutoff nozzles.
- Water from fire hydrants may not be tapped for any purpose other than fire suppression or emergency aid, without first obtaining written approval.
- No water system may be tapped into without first obtaining written approval.
- Water supply and distribution companies with 15 or more service connections shall maintain a program to detect and repair leaks in their distribution system, and shall review this program annually with the Agency.
- Water may not be used for agricultural irrigation in a manner which substantially conflicts with best management practices in Monterey County or which allows water to run to waste.
- Potable water may not be used for dust control purposes in agricultural activities where there is a reasonable source of non-potable water available.
- In all new construction, toilets must be ultra low-flow, showerheads must have a maximum flow capacity of 2.5 gallons per minute, and all hot water faucets with more than 10 feet of pipe between the faucet and the hot water heater must be equipped with a hot water recirculating system. All new construction requiring a land use permit must apply xeriscape principles throughout the exterior landscape, including such techniques