

Chapter 4

Changes to the Text of the Draft EIR

Introduction

This chapter contains revisions to the text of the DEIR for the 2007 General Plan. The text changes are intended to clarify or correct information in the DEIR in response to comments received on the document. This includes changes initiated by the County. Revisions are shown with strikethrough text for deletions (~~strikethrough~~) and underlined text for additions (underline). The changes appear in the order of their location in the DEIR, and are organized by chapter or major section. No text changes are being made to any sections or chapters that are not listed below.

Section 1, “Executive Summary”

Page 1-3, Table 1-1 Key Components of the 2007 General Plan. This table is revised as follows.

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
<u>2006–2030 horizon¹</u> (Unincorporated County only)	<u>29,096</u> <u>135,375</u> residents <u>10,015</u> <u>48,670</u> dwelling units
<u>2006–2092 buildout²</u> (Unincorporated County only)	<u>104,379</u> <u>207,424</u> residents <u>37,081</u> <u>74,573</u> dwelling units

¹ This is the 2006–2030 growth increment only. Total 2030 residents = 135,375. Total 2030 dwellings = 48,670.

² This is the 2006–2092 growth increment only. Total 2092 residents = 210,658. Total 2092 dwellings = 75,736.

Page 1-5, Table 1-2 Executive Summary Table. This table is revised as follows:

Table 1-2. Executive Summary Table

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
4.1 LAND USE		
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
4.2 AGRICULTURE RESOURCES		
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

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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.	No feasible mitigation beyond the 2007 General Plan goals and policies is available.	2030—Significant and unavoidable Buildout—Significant and unavoidable
CUM-1: Agricultural Resources	No mitigation is feasible.	Cumulatively considerable.
4.3 WATER RESOURCES		
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.	BIO-2.1: 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	<p>2030</p> <p>WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project</p> <p>The County will revise the draft 2007 General Plan to include the following <u>additional new</u> policy.</p>	2030—Significant and unavoidable (in some portions of the County) Buildout—Significant and unavoidable

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>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 basins from saltwater intrusion. <u>The County will also participate in regional groups including representatives of the Pajaro Valley Water Management Agency and the County of Santa Cruz to identify and support a variety of new water supply, water management and multiple agency agreement that will provide additional domestic water supplies for the Pajaro Groundwater Basin.</u> The County's general objective, while recognizing that timeframes will be dependent on the dynamics of <u>each of</u> the regional groups, will be to complete the cooperative planning of these water supply alternatives within five years of the adoption of the General Plan and to implement the selected alternatives within five years after that time.</p> <p>2092</p> <p>WR-1: Support a Regional Solution for the Monterey Peninsula In Addition to the Coastal Water Project. This measure is described above.</p> <p>WR-2: Initiate Planning for Additional Supplies to the Salinas Valley</p> <p>The County will revise the draft 2007 General Plan to include the following <u>additional new</u> policies.</p> <p>PS 3.17 The County will pursue expansion of the SVWP by <u>investigating expansion initiating investigations</u> of the capacity for the Salinas River water storage and distribution system. <u>to be further expanded.</u> This shall also include, <u>but not be limited to</u> investigations of expanded conjunctive use, use of recycled water for groundwater recharge and seawater intrusion barrier, and changes in operations of the reservoirs.</p> <p>The County's overall objective is to have an expansion planned and in service by 2030. <u>the date that extractions from the Salinas Valley groundwater basin are predicted to reach the levels estimated for 2030 in the EIR for the Salinas Valley Water Project. The County shall review this extraction data trends at five year intervals. The County shall also assess the degree to which the Salinas Valley Groundwater Basin (Zone 2C) has responded with respect to water supply and the reversal of seawater intrusion based upon the modeling protocol utilized in the Salinas Valley Water Project EIR. If the examination indicates that the growth in extractions predicted for 2030 are likely to be attained within ten years of the date of the review, or the groundwater basin has not</u></p>	unavoidable (in some portions of the County)

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p><u>responded with respect to water supply and reversal of seawater intrusion as predicted by the model, then the County shall implement PS-3.18.</u></p> <p>PS-3.18 <u>As required by PS-3.17, the</u> County will convene and coordinate a working group made up of the Salinas Valley cities, the MCWRA, and other affected entities. <u>The for the purpose of the working group</u> will be to 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 not be 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 <u>by 2020 and have projects online by 2030, within five years and to have the projects on-line five years following identification of water supply alternatives.</u></p> <p>BIO-2.3: Add Considerations Regarding Riparian Habitat and Stream Flows to Criteria for Long-Term Water Supply and Well Assessment. (see Section 4.9 Biological Resources, below).</p> <p>No additional mitigation measure is available.</p>	
WR-5: Land uses and development consistent with the 2007 General Plan would increase the demand for water storage, treatment, and conveyance facilities that could have significant secondary impacts on the environment.	The General Plan and Area Plan goals and policies will apply. Future projects will be subject to CEQA and have specific mitigation measures. As the experience with existing large-scale water supply projects shows, impacts cannot always be mitigated to a less than significant level.	2030—Significant and unavoidable 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>2030</p> <p>WR-1: Support a Regional Solution In Addition to the Coastal Water Project. This measure is described above.</p> <p>2092</p> <p>WR-1: Support a Regional Solution In Addition to the Coastal Water Project. This measure is described above.</p> <p>WR-2: Initiate Planning for Additional Supplies to the Salinas Valley. This measure is described above.</p>	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
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>2030</p> <p>WR-1: Support a Regional Solution In Addition to the Coastal Water Project This measure is described above.</p> <p>2092</p> <p>WR-1: Support a Regional Solution In Addition to the Coastal Water Project. This measure is described above.</p> <p>WR-2: 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 <u>inland</u> areas of the county. Approval of wells in these areas would result in well interference impacts.	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>
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.	<p>2030</p> <p>BIO-2.1: Stream Setback Ordinance. (see Section 4.9 Biological Resources, below).</p> <p>No additional mitigation beyond the General Plan and Area Plan goals and policies is necessary.</p>	<p>2030—Less than significant</p> <p>Buildout—Less than significant</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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.	2030 No mitigation beyond the General Plan and Area Plan goals and policies is necessary. 2092 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.	2030 No mitigation beyond the General Plan and Area Plan goals and policies is necessary. 2092 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.	2030 No mitigation beyond the General Plan and Area Plan goals and policies is necessary. 2092 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 quality:	No mitigation beyond 2007 General Plan policies is necessary.	Less than 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.

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
4.4 GEOLOGY, SOILS, AND SEISMICITY		
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 commonly caused by earthquakes, seasonal saturation of soils and rock, erosion, or grading activities.	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
GEO-5: Erosion from activities and land uses consistent with the 2007 General Plan could result in erosion hazards.	BIO-2.1: 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
4.5 MINERAL RESOURCES		
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 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.	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
4.6 TRANSPORTATION		
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.	<p>TRAN-1E: Revise Safety Element S-4.27 on increasing roadway connectivity to enhance emergency access.</p> <p>S-4.27 The County shall continue to review the procedure for proposed development, including minor and major subdivisions, and provide for an optional pre-submittal meeting between the project applicant, planning staff, and fire officials. In addition, the County shall review Community Area and Rural Center Plans, and new development proposals for roadway connectivity that provides multiple routes for emergency response vehicles. At the time of their update, Community Area and Rural Center Plans shall identify primary and secondary response routes. Secondary response routes shall be required to accommodate through traffic and may be existing roads, or may be new</p>	2030—Significant and unavoidable

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	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>TRAN-2B: Revise policies in the Carmel Valley Master Plan as follows:</p> <p>Policy CV-2.10. The following are policies regarding improvements to specific portions of Carmel Valley Road:</p> <ul style="list-style-type: none"> a) Via Petra to Robinson Canyon Road. Every effort should be made to preserve its rural character by maintaining it as a 2-lane road with paved shoulders, passing lanes and left turn channelizations at intersections where warranted. b) Robinson Canyon Road to Laureles Grade. Every effort should be made to preserve its rural character by maintaining it as a 2-lane road with paved shoulders, passing lanes and left turn channelizations at intersections where warranted. c) Carmel Valley Road/Laureles Grade. A grade separation should be constructed at this location instead of a traffic signal. The grade separation needs to be constructed in a manner that minimizes impacts to the rural character of the road. An interim improvement of an all-way stop or stop signal is allowable during the period necessary to secure funding for the grade separation. 	2030—Cumulatively considerable (most of county)

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<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> <p>Carmel Valley Road:</p> <ul style="list-style-type: none"> ▪ East of Holman Road ▪ Holman Road to Esquiline Road ▪ Esquiline Road to Ford Road ▪ Ford Road to Laureles Grade ▪ Laureles Grade to Robinson Canyon Road ▪ Robinson Canyon Road to Schulte Road ▪ Schulte Road to Rancho San Carlos Road ▪ Rancho San Carlos Road to Rio Road ▪ Rio Road to Carmel Rancho Boulevard ▪ Carmel Rancho Boulevard to SR1 	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>Other Locations:</p> <ul style="list-style-type: none"> ▪ Carmel Rancho Boulevard between Carmel Valley Road and Rio Road ▪ Rio Road between its eastern terminus <u>at Val Verde Drive</u> and SR1 <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"> ▪ Signalized Intersections—LOS of “C” is the acceptable condition. ▪ Unsignalized Intersections—LOS of “F” or meeting of any traffic signal warrant are defined as unacceptable conditions ▪ Carmel Valley Road Segment Operations: <ul style="list-style-type: none"> ▫ LOS of “C” for Segments 1, 2, 8, 9, and 10 is an acceptable condition; ▫ LOS of “D” for Segments 3, 4, 5, 6, and 7 is an acceptable condition. <p>During review of development applications which require a discretionary permit, if traffic analysis of the proposed project indicates that the project would result in traffic conditions that would exceed the standards described above in CV 2-18(d) after the analysis takes into consideration the Carmel Valley Traffic Improvement Program to be funded by the Carmel Valley Road Traffic Mitigation Fee, then approval of the project shall be conditioned on the prior (e.g. prior to project-generated traffic) construction of additional roadway improvements OR an Environmental Impact Report shall be prepared for the project. Such additional roadway improvements must be sufficient, when combined with the projects programmed in the Carmel Valley Traffic Improvement Program, to allow County to find that the affected roadway segments or intersections would meet the acceptable standard upon completion of the programmed plus additional improvements. This policy does not apply to the first single-family residence on a legal lot of record.</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>Policy CV-2.19 : Carmel Valley Traffic Improvement Program (CVTIP)</p> <p>a) The CVTIP shall include the following projects (unless a subsequent traffic analysis identifies that different projects are necessary to maintain the LOS standards in Policy CV-2.18(d)):</p> <ul style="list-style-type: none"> ▪ Left-turn channelization on Carmel Valley Road west of Ford Road; ▪ Shoulder widening on Carmel Valley Road between Laureles Grade and Ford Road; ▪ Paved turnouts, new signage, shoulder improvements, and spot realignments on Laureles Grade; ▪ Grade separation at Laureles Grade and Carmel Valley Road (an interim improvement of an all-way stop or stop signal is allowable during the period necessary to secure funding for the grade separation); ▪ Sight Distance Improvement at Dorris Road; ▪ Passing lanes in front of the proposed September Ranch development; ▪ Passing lanes opposite Garland Park; ▪ Climbing Lane on Laureles Grade; ▪ Upgrade all new road improvements within Carmel Valley Road Corridor to Class 2 bike lanes; ▪ Passing lane (1/4 mile) between Schulte Road and Robinson Canyon Road; and ▪ Passing lane (1/4 mile) between Rancho San Carlos Rd and Schulte Road. <p>b) The County shall adopt an updated fee program to fund the CVTIP.</p> <p>c) All projects within the CVMP area and within the “Expanded Area” that contribute to traffic within the CVMP area shall contribute fair-share traffic impact fees to fund necessary improvements identified in the CVTIP, as updated at the time of building permit issuance.</p> <p>d) Where conditions are projected to approach unacceptable conditions (as defined by the monitoring and standards described above under CV 2-18(d)), the CVTIP shall be updated to plan for and fund adequate improvements to maintain acceptable conditions.</p>	

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

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
TRAN-4B: Buildout of the 2007 General Plan cumulatively with development in incorporated cities and in adjacent counties would create traffic increases on County and Regional roadways which would cause the LOS to exceed the LOS D standard, or contribute traffic to County and Regional roads that exceed the LOS standard without development.	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-2B (described above) is feasible.	Buildout— Significant 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

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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
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>TRAN-5A: 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"> 1) A proposed development's project-specific assessment identifies a direct impact to the facility in terms of either LOS or safety. 2) A proposed development gains access from an intersection within the segment. 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. <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"> 1. Providing left turn lanes at intersections without left turn lanes and where the frequency of turning vehicles affects through vehicle movement; and/or 2. Increasing the width of the roadway shoulder at intersections to allow vehicles to pass turning vehicles; and/or 3. Constructing passing lanes as determined in the Capital Improvement and Financing Plan. <p><u>Until such time as the County Traffic Impact Fee Program and CIFP for the AWCP are adopted, all new development in the AWCP will be required to prepare a Traffic Impact</u></p>	2030—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p><u>Analysis (TIA) regardless of the level of CEQA analysis conducted for the Project.</u> <u>Project-specific (Tier 1) mitigation measures identified in the TIA will be required to be</u> <u>implemented concurrently. If a TIA identifies a Traffic Tier impact, the development</u> <u>will be required to make a “fair share” payment for that impact. For discretionary</u> <u>permits and approvals, Policies C-1.3 and C-1.4 shall apply. In addition, all projects are</u> <u>subject to payment of the TAMC Regional Development Impact Fee.</u></p>	
TRAN-5B: Buildout of the 2007 General Plan would create adverse impacts to County roads within the Agricultural Winery Corridor.	No additional mitigation beyond 2007 General Plan policies and Mitigation Measure TRAN-5A (described above) is necessary.	Buildout—Less than significant
CUM-6: Transportation	Related mitigation measures are included in Section 4.6.	Cumulatively considerable

4.7 AIR QUALITY

AQ-1: Buildout of the 2007 General Plan would conflict with applicable Air Quality Management Plans and Standards.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
AQ-2: Generation of significant quantities of construction-related emissions would result in greater levels of air pollution.	<p>2030 and 2092</p> <p>AQ-1: The County of Monterey will update General Plan policy OS-10.59 as follows: OS-10.9 The County of Monterey shall require that future development implement applicable Monterey Bay Unified Air Pollution Control District control measures. Applicants for discretionary projects shall work with the Monterey Bay Unified Air Pollution Control District to incorporate feasible measures that assure that health-based standards for diesel particulate emissions are met. <u>The County of Monterey will require that future construction operate and implement MBUAPCD PM₁₀ control measures to ensure that construction-related PM₁₀ emissions do not exceed the MBUAPCD's PM₁₀ threshold of 82 pounds per day. The County shall implement MBUAPCD measures to address off-road mobile source and heavy duty equipment emissions as conditions of approval for future development to ensure that construction-related NO_x emissions from non-typical construction equipment do not exceed the MBUAPCD's NO_x threshold of 137 pounds per day.</u> OS-10.5. The County of Monterey will require that future construction in accordance with the 2007 implement MBUAPCD PM₁₀ control measures.</p>	2030—Less than significant Buildout—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>AQ-2: Implement MBUAPCD Mitigation Measures for Off-Road Mobile Source and Heavy Duty Equipment Emissions.</p> <p>General Plan Policy OS-10.69 will be revised as follows:</p> <p>OS-10.9 The County of Monterey shall require that future development implement applicable Monterey Bay Unified Air Pollution Control District control measures. Applicants for discretionary projects shall work with the Monterey Bay Unified Air Pollution Control District to incorporate feasible measures that assure that health-based standards for diesel particulate emissions are met. <u>The County of Monterey will require that future construction operate and implement MBUAPCD PM₁₀ control measures to ensure that construction-related PM₁₀ emissions do not exceed the MBUAPCD's PM₁₀ threshold of 82 pounds per day. The County shall implement MBUAPCD measures to address off-road mobile source and heavy duty equipment emissions as conditions of approval for future development.</u></p>	
AQ-3: Net Change in Ozone Precursor (ROG and NOx) and Particulate Matter.	<p>2030 and 2092</p> <p>CC-2 and CC-3: See the description of these measures under Climate Change, below.</p> <p>AQ-3: 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"> ▪ Provide preferential carpool/vanpool parking spaces ▪ Implement a parking surcharge for single occupant vehicles ▪ Provide for shuttle/mini bus service ▪ Provide bicycle storage/parking facilities and shower/locker facilities ▪ Provide onsite child care centers ▪ Provide transit design features within the development ▪ Develop park-and-ride lots ▪ Employ a transportation/rideshare coordinator ▪ Implement a rideshare program 	<p>2030—Significant and unavoidable</p> <p>Buildout— Significant and unavoidable</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
AQ-4: Buildout of the 2007 General Plan would expose sensitive receptors to increased diesel exhaust.	<ul style="list-style-type: none"> ▪ Provide incentives to employees to rideshare or take public transportation ▪ Implement compressed work schedules ▪ Implement telecommuting program <p>AQ-4: Implement MBUAPCD Mitigation Measures for Residential Land Uses (MBUAPCD 2008).</p> <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"> ▪ Provide bicycle paths within major subdivisions that link to an external network ▪ Provide pedestrian facilities within major subdivisions <p>AQ-5: 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"> ▪ Utilize electric fleet vehicles ▪ Utilize Ultra Low-Emission fleet vehicles ▪ Utilize methanol fleet vehicles ▪ Utilize liquid propane gas fleet vehicles ▪ Utilize compressed natural gas fleet vehicles 	2030—Less than significant Buildout—Less than significant
	<p>2030 and 2092</p> <p>AQ-6:</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 PM₁₀ emissions to less than 50% of the statewide PM₁₀ emissions average for comparable equipment.</p> <p>AQ-7:</p> <p>The following language should be included in General Plan policy OS-10.10:</p> <p><u>Ensure development</u> of new sensitive land uses (schools, hospitals, facilities for the elderly) is should not be located any closer than 500 feet of a freeway carrying more than 100,000 vehicles per day.</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
AQ-5: Future traffic growth would cause increases in CO levels along County roadways.	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant Buildout—Less than significant
AQ-6: Buildout of the 2007 General Plan would result in the emission of objectionable odors.	<p>2030 and 2092</p> <p>AQ-8:</p> <p>The following measures should be added as General Plan Policy OS-10.12: OS-10.12. Provide for the proper storage and disposal of pomace resulting from winery operations.</p> <ul style="list-style-type: none"> ▪ 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. ▪ To prevent complaints resulting from burning of pomace, burning of pomace as a disposal method shall be prohibited. ▪ All wineries shall incorporate best management practices and technologies to prevent fugitive emissions and odors from escaping the winery during production. 	2030—Less than significant Buildout—Less than significant
CUM 7: Air Quality	No mitigation is feasible.	Cumulatively considerable.
4.8 NOISE		
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

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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
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	2030	2030—Less than significant
	<i>All Special Status Species—Program Level</i>	
	BIO-1.1: Baseline Inventory of Landcover, Special Status Species Habitat, Sensitive Natural Communities, Riparian Habitat, and Wetlands in Monterey County	2092—Significant and unavoidable
	<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>BIO-1.2: Salinas Valley Conservation Plan to preserve habitat for the San Joaquin kit fox in the Salinas Valley</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>The County shall, in concert with the <u>USFWS U.S. Fish and Wildlife Service</u>, <u>CDFG California Department of Fish and Game</u>, cities in the Salinas Valley, and stakeholders develop a conservation <u>plan strategy</u> 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 <u>plan strategy</u>, 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 <u>plan strategy</u> area. The County shall complete the conservation <u>strategy</u> within 4 years of General Plan adoption. The conservation <u>strategy</u> funding program shall be developed and shall <u>include consider</u> a mitigation fee program for which development projects will be assessed a fee based on a proportional basis of impact to the San Joaquin kit fox <u>as one of the options</u>. The compensation <u>plan strategy</u> 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><u>Until the adoption of the conservation strategy, habitat loss due to discretionary projects shall be mitigated on a project-by-project basis.</u></p> <p><i>All Special Status Species—Project Level</i></p> <p>BIO-1.3: Project Level Biological Survey and Avoidance, Minimization, and Compensation for Impacts to Non Listed Special Status Species and Sensitive Natural Communities.</p> <p>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> <p>(a) Development in Focused Growth Areas (Community Areas, Rural Centers and Housing Overlays</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>(b) Development requiring a discretionary permit</p> <p>(e) Large scale wineries in the AWCP.</p> <p>2092</p> <p>BIO-1.2 1.1 through BIO 1.3 as described above.</p> <p>BIO-1.4: By 2030, prepare an Update to the General Plan to identify expansion of existing focused growth areas and/or to identify new focused growth areas to reduce loss of natural habitat in Monterey County.</p> <p>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. At five year intervals, the County shall examine the degree to which thresholds predicted in the General Plan EIR for the timeframe 2006-2030 for increased population, residential construction and commercial growth have been attained. If the examination indicates that actual growth is within 10% of the thresholds (10,015 new housing units; 500 acres new commercial development; 3111 acres new industrial development and 10,253 acres of land converted to agriculture) the County shall initiate a General Plan Amendment process to consider the expansion of focused growth areas established by the 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 CEQA defined special status species and habitat addressed by Policy OS-5.16 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. This update will also address expansion of agricultural operations and potential impacts to CEQA defined special status species and habitat addressed by policy OS-5.16.</p> <p>BIO-1.5: By 2030, prepare a Comprehensive County Natural Communities Conservation PlanStrategy</p> <p>At five year intervals, the County shall examine the degree to which thresholds for increased population, residential construction and commercial growth predicted in the General Plan EIR for the timeframe 2006-2030 have been attained. If the examination indicates that actual growth is within 10% of the growth projected in the General Plan EIR (10,015 new housing units; 500 acres new commercial development; 3111 acres new industrial development and 10,253 acres of land converted to agriculture), then the County shall assess the vulnerability of currently non-listed species becoming rare.</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p><u>threatened or endangered due to projected development.</u> 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 CEQA defined special status species <u>conservation strategy</u> for those areas containing substantial suitable habitat for plant and wildlife species with the potential to become listed species up to buildout of the County due to development. The County shall invite the participation of the incorporated cities, the federal land agencies, Caltrans and other stakeholders. The NCCP <u>conservation strategy</u> shall also cover preservation of sensitive natural communities, riparian habitat, and wetlands, and wildlife movement corridors and include mechanisms <u>including such as</u> on and off-site mitigation ratios and fee programs for mitigating impacts <u>or their equivalent</u>.</p>	
<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>2030</p> <p><i>Program Level Mitigation Measures</i></p> <p>BIO-1.1 (as described above under Impacts to Special Status Species)</p> <p>BIO-2.1: Stream Setback Ordinance</p> <p><u>The In order to preserve riparian habitat, conserve the value of streams and rivers as wildlife corridors and reduce sediment and other water quality impacts of new development, the county shall develop and adopt a county wide Stream Setback Ordinance.</u> <u>The ordinance shall</u> 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 <u>inland portions of</u> 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 <u>preserve riparian habitat and reduce sediment and other water quality impacts of new development</u> shall identify appropriate uses within the setback area that would not cause removal of riparian habitat, compromise identified riparian wildlife corridors, or compromise water quality of the relevant stream.</p> <p>The Stream Setback Ordinance shall apply to all discretionary development, County</p>	<p>2030—Less than significant</p> <p>2092—Significant and unavoidable.</p>

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p><u>public projects within the County</u> 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 slopes over 10%. <u>The stream setback ordinance shall be adopted within three (3) years of adoption of the General Plan.</u></p>	
	<p>BIO-2.2—Oak Woodlands Mitigation Program.</p>	
	<p>The County shall prepare, adopt and implement a program that allows project to mitigate the loss of oak woodlands. The program <u>would include</u> <u>shall be consistent with California Public Resources Code Section 21083.4, and will identify a combination of the following mitigation alternatives: a) ratios for replacement, b) payment of fees to mitigate the loss or direct replacement for the loss of oak woodlands and monitoring for compliance, and c) conservation easements.</u> 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 <u>of fees</u> to either a local fund established by the County or a state fund. Until such time as the County program is implemented <u>consistent with Public Resources Code section 21083.4 (b), payment of projects shall pay a fee</u> <u>may be made to the State Oak Woodlands Conservation Program Fund (OWCF).</u> Replacement of oak woodlands shall <u>be on a minimum 1:1 ratio</u> <u>provide for equivalent acreage and ecological value at a minimum of 1:1 ratio.</u> The program shall prioritize the conservation of oak woodlands that are within known wildlife corridors as a high priority. The oak woodlands mitigation program shall be adopted within 5 years of adoption of the General Plan.</p>	
	<p>BIO-2.3: 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, <u>for the purpose of minimizing impacts to those resources and species.</u></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, <u>for the purpose of minimizing impacts to those resources and species.</u></p>	
	<p>h— <u>A discretionary permit shall be required for new wells in the Carmel Valley alluvial aquifer. All new wells shall be required to fully offset any increase in extractions from</u></p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation	
	<p><u>this aquifer. These requirements shall be maintained until such a time that the Coastal Water project (or its equivalent) results in elimination of all Cal-Am withdrawals in excess of its legal rights.</u></p> <p><u>i— A discretionary permit shall be required for all new wells in fractured rock or hard rock areas in the North County Area Plan in order to provide for case by case review of potential water quality and overdraft concerns. This requirement shall be maintained until such a time that a water supply project or projects are completed that addresses existing water quality and water supply issues in fractured rock or hard rock areas.</u></p> <p><i>Project Level Mitigation Measure</i></p> <p><u>BIO-1.3 as described above under Impacts to Special Status Species.</u></p> <p>2092</p> <p><u>BIO-1.1, -1.2, 1.3, 1.4, and 1.5</u> as described above under Impacts to Special Status Species.</p> <p><u>BIO-2.1, 2.2 and 2.3</u> as described above.</p>		
BIO-3.1: Potential Disturbance and Loss of Native Fish and Wildlife Species Movement Corridors	<p>2030</p> <p><u>BIO-1.2</u> described under Impacts to Special Status Species.</p> <p><u>BIO-2.1</u> described under Impacts to Sensitive Natural Communities.</p> <p><u>BIO-3.1: Project-Level Wildlife Movement Considerations.</u></p> <p>The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat. The County shall <u>require that expansion of consider the need for wildlife movement in designing and expanding</u> major roadways and public infrastructure projects <u>to</u> provide movement opportunities for terrestrial wildlife and <u>to</u> ensure that existing stream channels and riparian corridors continue to provide for wildlife movement and access. <u>Among others, sources of information about wildlife corridors in Monterey County can be found in the following references:</u></p> <ul style="list-style-type: none"> ▪ <u>California Wilderness Coalition. 2001. Missing Linkages: Restoring Connectivity to the California Landscape.</u> ▪ <u>The Nature Conservancy. 2006. California Central Coast Ecoregional Plan Update. October.</u> 	2030—Less than significant	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>2092</p> <p>BIO-1.2 described under Impacts to Special Status Species.</p> <p>BIO-1.3 described under Impacts to Special Status Species.</p> <p>BIO-1.4 described under Impacts to Special Status Species.</p> <p>BIO-1.5 discussed under Impacts to Special Status Species.</p> <p>BIO-2.1 discussed under Impacts to Sensitive Natural Communities.</p> <p>BIO-3.1 discussed above.</p>	
BIO-3.2: Potential Loss or Disturbance of Nesting Migratory Birds and Raptors	<p>2030</p> <p>BIO-3.2: Remove Vegetation During the Nonbreeding Season and Avoid Disturbance of Nesting Migratory Birds, Including Raptors, as Appropriate (generally <u>September 16 to January 31</u><u>February 1 to September 15</u>).</p> <p><u>Vegetation removed in the course of development will be removed only during the nonbreeding season (generally September 16 to January 31). Occupied nests of statutorily protected migratory birds, including and raptors will be avoided during this period</u>shall not be disturbed during the breeding season (generally February 1 to September 15). 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 <u>or raptors</u>, (2) determine whether site vegetation is suitable to nesting migratory birds <u>or raptors</u>, (3) identify any regulatory requirements for setbacks or other avoidance measures for migratory birds <u>and raptors</u> which could nest on the site, and (4) establish project-specific requirements for setbacks, lock-out periods, or other methods of avoidance of <u>disruption of</u> nesting birds. The county shall require the development to follow the recommendations of the biologist. <u>This measure may be implemented in one of two ways: (1) preconstruction surveys can be conducted to identify active nests and if found, adequate buffers shall be provided to avoid active nest disruption until after the young have fledged; or (2) vegetation removal can be conducted during the nonbreeding season (generally September 16 to January 31); however, removal of vegetation along waterways shall require approval of all appropriate local, state, and federal agencies.</u></p> <p><u>This policy would not apply in the case of an emergency fire event requiring tree removal. This policy would apply for tree removal that addresses fire safety planning, since removal can be scheduled to reduce impacts to migratory birds and raptors.</u></p>	2030—Less than significant 2092—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
2092	BIO-3.2 discussed above.	
BIO-4: Potential Loss of Protected Trees	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant 2092—Less than 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 <u>BIO-4.1 to 1.2, 1.4, and 1.5</u> , BIO-2.1 to 2.3, BIO-3.1 to 3.2.	Cumulatively considerable.

4.10 CULTURAL RESOURCES

CUL-1: Development under the 2007 General Plan could potentially damage or destroy historic resources.	<p>CUL-1: Policy CSV-1.1 of the Central Salinas Valley Area Plan will be revised to read: <u>CSV-1.1 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-<u>381364</u>-021, 418-<u>381364</u>-022).</p>	2030—Less than significant
CUL-2: Development under the 2007 General Plan could potentially damage or destroy archaeological resources.	CUL-1 discussed under impacts to historic resources.	2030—Less than significant 2092—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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 2092—Less than significant

4.11 PUBLIC SERVICES AND UTILITIES

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.	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.	2030 No mitigation beyond the 2007 General Plan policies is necessary. 2092 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

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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
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.	<p>PS-1: The County will add the following policy to the 2007 General Plan:</p> <p>Policy S-3.9: require all future developments to implement <u>Best Management Practices (BMPs)</u> as approved in the <u>Monterey Regional Storm Water Management Program</u> which are designed to incorporate the most feasible number of Low Impact Development (LID) techniques into their stormwater management plan. <u>BMPs</u> 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.</p>	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.	<p>2030 No mitigation beyond the 2007 General Plan policies is necessary.</p> <p>2092 PS-2: The County will add the following policy to the 2007 General Plan:</p> <p>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.</p> <p>Specific mitigation measures to reduce the impacts of future solid waste facilities are infeasible because the characteristics of those future facilities are unknown.</p>	2030—Less than significant Buildout— Significant and unavoidable
CUM-10: Public Services and Utilities – Solid Waste	No mitigation is feasible.	Cumulatively considerable.

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
4.12 PARKS AND RECREATION		
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
4.13 HAZARDS AND HAZARDOUS MATERIALS		
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.

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
4.14 AESTHETICS, LIGHT, AND GLARE		
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 Plan would substantially degrade the existing visual character or quality of Monterey County.	No mitigation beyond the 2007 General Plan policies is available.	2030—Significant 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.
4.15 POPULATION AND HOUSING		
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	No mitigation beyond the 2007 General Plan policies is necessary.	2030—Less than significant

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
housing units, necessitating the construction of new housing elsewhere.		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
CUM-13: Population and Housing	No mitigation is feasible.	Buildout—Less than significant Cumulatively considerable

4.16 CLIMATE CHANGE

CC-1: Development of the 2007 General Plan would contribute considerably to cumulative GHG emissions and global climate change as the County in 2020 would have GHG emissions greater than 72% of business as usual conditions.

2030 Horizon

CC-1a: Modify Policy OS-10.11 regarding the Greenhouse Gas Reduction Plan
Revise Policy OS-10.11 as follows:

OS-10.11 Within 24 months of the adoption of the General Plan, Monterey County shall~~will~~ develop and adopt a Greenhouse Gas Reduction Plan with a target to reduce emissions by 2020 to the 1990 level by 28% relative to estimated “business as usual” 2020 emissions. to a level that is 15% less than 2005 emission levels.

At a minimum, the Plan shall:

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

During preparation of the Greenhouse Gas Reduction Plan, the County shall also

2030—Less than cumulatively considerable
Buildout—
Cumulatively considerable

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>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>CC-2: 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 <u>technologies, strategies or their functional equivalent</u>:</p> <ul style="list-style-type: none"> ▪ All new County government projects and major renovations shall meet, at a minimum, LEED-Silver standards or an equivalent rating system ▪ All new commercial buildings shall <u>meet the requirements of</u> be certified under the LEED rating system for commercial buildings or an equivalent rating system. ▪ All new residential projects of 6 units or more shall meet the GreenPoint Rating System for residential buildings, or an equivalent alternate rating system. ▪ The County shall require consideration of solar building orientation, solar roofs, cool pavements, and planting of shade trees in development review of new commercial and industrial projects and new residential projects of 6 units or more. ▪ Prioritized parking within new commercial and retail areas for electric vehicles, hybrid vehicles, and alternative fuel vehicles shall be provided for new commercial and institutional developments. ▪ New commercial and industrial projects greater than 25,000 square feet shall be required to provide on-site renewable energy generation as part of their development proposal. This requirement can be met through a solar roof or other means. <p>CC-3: 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"> ▪ identify possible sites for production of energy using local renewable resources such as solar, wind, small hydro, and, biogas; 	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<ul style="list-style-type: none"> ▪ consider the potential need for exemption from other General Plan policies concerning visual resources, ridgeline protection, biological resources; ▪ evaluate potential land use, environmental, economic, and other constraints affecting renewable energy development; and ▪ adopt measures to protect both renewable energy resources, such as utility easement, right-of-way, and land set-asides as well as visual and biological resources. <p>The County shall also complete the following:</p> <ul style="list-style-type: none"> ▪ Evaluate the feasibility of Community Choice Aggregation (CCA) for the County. CCA allows cities and counties, or groups of them, to aggregate the electric loads of customers within their jurisdictions for purposes of procuring electrical services. CCA allows the community to choose what resources will serve their loads and can significantly increase renewable energy. ▪ If CCA is ultimately not pursued, the County shall evaluate the feasibility of purchasing renewable energy certificates to reduce the County's contribution to GHG emissions related to County electricity use. ▪ The County shall develop a ministerial permit process for approval of small-scale wind and solar energy systems for on-site home, small commercial, and farm use. <p>CC-4: New Policy PS-5.5—Promote Recycling and Waste Reduction</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"> ▪ The County shall adopt a 75% waste diversion goal. ▪ The County shall support the extension of the types of recycling services offered (e.g., to include food and green waste recycling). ▪ The County shall support waste conversion and methane recovery in local landfills to generate electricity. ▪ The County shall support and require the installation of anaerobic digesters <u>or equivalent technology</u> for winery facilities and wastewater treatment facilities under County jurisdiction. <p>CC-5: Adopt GHG Reduction Plan for County Operations</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</p>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>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>2092</p> <p>CC-11 (Same as BIO-1.9): By 2030, prepare an Update to the General Plan to identify expansion of existing focused growth areas and/or to identify new focused growth areas to reduce loss of natural habitat in Monterey County and vehicle miles traveled</p> <p>The County shall update the County General Plan by no later than January 1, 2030 and shall consider the potential to expand focused growth areas established by the 2007 General Plan and/or the designation of new focused growth areas. The purpose of such expanded/new focused growth areas would be to reduce the loss of natural habitat due to continued urban growth after 2030. The new/expanded growth areas shall be designed to accommodate at least 80% of the projected residential and commercial growth in the unincorporated County from 2030 to buildout.</p> <p>CC-12: Greenhouse Gas Reduction Plan Requirements Beyond 2030</p> <p>In parallel with the development and adoption of the 2030 General Plan, Monterey County will develop and adopt a Greenhouse Gas Reduction Plan with a target to reduce 2050 GHG emissions by 80% 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>	

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
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>CC-13: Develop and Integrate Climate Change Preparedness Planning for Monterey County</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"> ▪ Scope the climate change impacts to major County sectors and building and maintain support among stakeholders to prepare for climate change. ▪ Establish a climate change preparedness team. ▪ Identify planning areas relevant to climate change impacts. ▪ Conduct a vulnerability assessment based on climate change projections for the region, the sensitivity of planning areas to climate change impacts, and the ability of communities to adapt to climate change impacts ▪ Conduct a risk assessment based on the consequences, magnitude, and probability of climate change impacts, as well as on an evaluation of risk tolerance and community values. ▪ Establish a vision and guiding principles for climate resilient communities and set preparedness goals in priority planning areas based on these guiding principles. ▪ Develop, select, and prioritize possible preparedness actions. ▪ Identify a list of important implementation tools ▪ Develop an understanding of how to manage risk and uncertainty in the planning effort. ▪ Develop measures of resilience, and use these to track the results of actions over time ▪ Review assumptions and other essential information to ensure that planning remains relevant to the most salient climate change impacts. ▪ Update plans regularly. 	2030 and Buildout—Less than cumulatively considerable

Issues/Impacts	Mitigation Measures	Level of Significance after Mitigation
	<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>	
CUM-12: Climate Change	See Mitigation Measures as described in Section 4.16, <i>Climate Change</i> .	Cumulatively considerable.

Page 1-39, under 1.4.1 Agricultural Resources. The paragraph is revised as follows.

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~~Approximately 2,571 acres of Important Farmland (as designated by the California Department of Conservation) and ~~more than 7,000~~approximately 6,784 acres of Williamson Act farmland would be converted to non-agricultural use. Note that there is overlap between Important Farmland and Williamson Act Farmland. The Williamson Act includes grazing land that is not classified as Important Farmland.

Page 1-43, Table 1-3 Summary of 2007 General Plan Alternatives. The table is revised as follows.

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 <ins>Same</ins>	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 <ins>Less</ins>	Less	Greater	Less
Air Quality	Significant	Greater	Greater <ins>Same</ins>	Less	Greater	Less
Greenhouse Gases	<u>Less Than Significant</u>	<u>Greater</u>	<u>Greater</u>	<u>Greater</u>	<u>Greater</u>	<u>Same</u>
Noise	Significant	Greater	Greater	Same	Greater	Greater
Biological Resources	Significant	Greater	Same	Greater	Greater	Less
Cultural Resources	Less Than Significant	Greater	Same	Greater <ins>Same</ins>	Same	Less
Public Services and Utilities	Less Than Significant	Greater	Same	Same <ins>Less</ins>	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 = 21st 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.

Page 1-45, under 1.6.1.2 Water Supply. The paragraph is revised as follows.

Monterey County has significant existing water constraints. The three major groundwater basins ~~watersheds~~ in the County (Salinas, Carmel, and Pajaro Rivers) are all in a state of overdraft and the Salinas and Pajaro basins are also subject to seawater intrusion. Subareas within these broader areas are also facing water supply challenges including the overdrafted Seaside aquifer, and water quality and localized supply challenges in the Granite Ridge/South Highlands areas. 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 waterrelated problems without careful planning.

Page 1-45, under 1.6.1.4 Loss of Farmland. The paragraph is revised as follows.

Development and land use activities contemplated by the 2007 General Plan could potentially result in the loss of ~~more than 5,400~~ approximately 2,571 acres of Important Farmland and ~~approximately 6,784~~ 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 parcels lots of record of varying sizes, in the unincorporated county.

Page 1-47, second full paragraph. The paragraph is revised as follows.

~~“CEQA requires the Board of Supervisors to certify the FEIR prior to adopting the proposed 2007 General Plan. (CEQA Guidelines §15090.) At that time, they will also pursuant to CEQA, if the Board elects to adopt the General Plan, the Board must adopt findings regarding the disposition of each significant effect identified in the FEIR, as well as a statement of overriding considerations describing the specific benefits that outweigh the project’s significant and unavoidable impacts. (CEQA Guidelines §§15091, 15093.) The Board may also reject the proposed 2007 General Plan and not certify the FEIR.”~~

Section 2, “Introduction”

Page 2-3, under 2.1.2 Level of Detail. The third sentence of the second paragraph is revised as follows.

The County has an extensive array of agricultural lands, ~~lands devoted to mineral extraction~~, and recreational areas, as well as small number of lands devoted to mineral extraction.

Page 2-3, Section 2.1.1. The last sentence is revised as follows.

As mentioned above, ~~prior to approving the 2007 if the County elects to adopt the~~ General Plan in its final form, the County ~~will~~ must adopt a “statement of overriding considerations” that describes the specific benefits that outweigh the significant and unavoidable impacts of the plan.” (CEQA Guidelines § 15093.)

Page 2-4, first paragraph. The fifth and sixth sentences in this paragraph are revised as follows:

~~With some exceptions, as~~ As explained below in Section 3, the general plan will apply countywide, ~~however it does not propose changes to the County's certified Local Coastal Program~~. Accordingly, ~~the draft General Plan will not change the existing policies or propose changes in land use within the Coastal Zone. Because of the broad scope and application of the General Plan, 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.~~

Section 3, “Project Description”

Page 3-2. The first sentence of the second full paragraph is changed to read as follows:

The 2007 General Plan covers all inland unincorporated portions of the County.

Page 3-8. The first sentence on the is revised as follows:

This EIR considers AMBAG’s growth projections in relation to physical constraints such as potable water supply available (Section 4.3, Water Resources~~11, Public Services and Utilities~~) and roadway capacity (Section 4.6, Transportation).

Page 3-13. Revise Table 3-5 as follows.

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

Inland	2000 ^a	2005 ^a	2006 Adjusted ^b	AMBAG 2030 ^a	GP Buildout ^c	2006– 2030	2006 to Buildout	2030 to Buildout
Housing Units								
Unincorporated County	37,047	40,006	38,655	48,670	<u>74,573</u> <u>75,736</u>	10,015	<u>35,918</u> <u>37,081</u>	<u>25,903</u> <u>27,066</u>
Incorporated Cities ^d	92,531	98,374	101,520	138,331	<u>216,040</u> <u>219,529</u>	36,811	<u>114,520</u> <u>118,009</u>	<u>77,709</u> <u>81,198</u>
Total	129,578	138,380	140,175	187,001	<u>290,613</u> <u>295,265</u>	46,826	<u>150,438</u> <u>155,090</u>	<u>103,612</u> <u>108,264</u>
Population								
Unincorporated County ^e	100,252	110,083	106,279	135,375	<u>207,424</u> <u>210,659</u>	29,096	<u>101,145</u> <u>104,379</u>	<u>72,049</u> <u>75,284</u>
Incorporated Cities ^f	301,060	322,517	332,699	467,356	<u>729,898</u> <u>741,686</u>	134,657	<u>397,199</u> <u>408,987</u>	<u>262,542</u> <u>274,330</u>
Total	401,312	432,600	438,979	602,731	<u>937,322</u> <u>952,345</u>	163,752	<u>498,344</u> <u>513,366</u>	<u>334,591</u> <u>349,614</u>
Employment								
Unincorporated County ^g	68,915	73,389	70,384	97,113	<u>148,798</u> <u>151,119</u>	26,729	<u>78,414</u> <u>80,735</u>	<u>55,333</u> <u>57,654</u>
Incorporated Cities ^f	153,526	165,583	172,100	238,268	<u>372,118</u> <u>378,127</u>	66,168	<u>200,018</u> <u>206,027</u>	<u>130,202</u> <u>136,211</u>
Total	222,441	238,972	242,484	335,381	<u>520,916</u> <u>529,246</u>	92,897	<u>278,432</u> <u>286,762</u>	<u>185,535</u> <u>193,865</u>

Sources:

- ^a Association of Monterey Bay Area Governments 2004.
- ^b Scaled on 00–05 and adjusted to place TAZs for future annexations in City totals..
- ^c 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 in the DEIR; with additional buildout units in FEIR forecast, buildout may occur in 2095 using unit rate of growth, but buildout year not changed in FEIR.
- ^d Cities—AMBAG 2004 projection used for 2030; For buildout used 3 times County units based on AMBAG 2008 estimated City (75%)/County (25%) split.
- ^e Unincorporated County—Population based on AMBAG 2030 estimate of 2.78 persons/unit for 2030 and buildout population estimates.
- ^f Cities—Used AMBAG 2030 estimated 3.38 persons/unit for 2030 and buildout population estimates.
- ^g County—Used AMBAG 2030 estimated 0.72 persons/job for 2030 and buildout employee estimates.

Page 3-15. Revise Table 3-6 as follows.

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
PLANNING AREA								
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	<u>18,730</u> 0	4	—	—	<u>1</u> 0	—	<u>18,724</u>	—
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	<u>1,762,670</u> <u>1,781,400</u>	<u>50,567</u> <u>50,571</u>	5,093	4,780	<u>1,185,801</u> <u>1,185,802</u>	31,962	<u>388,462</u> <u>407,186</u>	96,005
Coastal/Non-Coastal Areas	109,311	1	84	—	17	78	108,070	1,061
Total Inland County	<u>1,871,981</u> <u>1,890,710</u>	<u>50,568</u> <u>50,572</u>	5,177	4,780	<u>1,185,818</u> <u>1,185,819</u>	32,040	<u>496,532</u> <u>515,256</u>	97,066
Coastal Areas	197,343							
Cities	41,055							
Total County	<u>2,110,379</u> <u>2,129,108</u>							

Page 3-16. Revise Table 3-8 as follows.

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
CACHAGUA									
Cachagua	136,580	263	132	18	22	5	0	0	
Subtotal	136,580	263	132	18	22	5	0	0	
CARMEL VALLEY									
Carmel Valley	26,736	492	758	101	239	52	0	0	Not including housing overlay area. Policy CV-1.6 allows 266 new subdivided lots.
Carmel Mid-Valley AHO	40	0	390	<u>449</u> <u>128</u>	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	<u>251</u> <u>229</u>	239	52	0	0	
CENTRAL SALINAS VALLEY									
Central Salinas Valley	545,022	357	456	61	323	70	140	24 <u>39</u>	Not including cities, community areas, rural centers.
Chualar CA	350	20	1,500	<u>574</u> <u>492</u>	4	2	27	65 <u>8</u>	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	<u>652</u> <u>559</u>	5	2	0	0	
San Lucas RC	155	71	169	<u>65</u> <u>55</u>	2	1	32	77 <u>9</u>	

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
Subtotal	545,022	483	3,829	<u>1,352</u> <u>1,167</u>	334	75	199	<u>163</u> <u>55</u>	
FORT ORD									
Fort Ord	19,138	0	8,610	<u>3,295</u> <u>2,823</u>	226	88	0	0	
Subtotal	19,138	0	8,610	<u>3,295</u> <u>2,823</u>	226	88	0	0	
GREATER MONTEREY PENINSULA									
Greater Monterey Peninsula	57,056	642	<u>3,995</u> <u>4,011</u>	<u>534</u> <u>536</u>	62	<u>43</u> <u>14</u>	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	<u>976</u> <u>836</u>	0	0	0	0	Assume approximately 85 acres of land likely for development with max 30 du/ac density.
Subtotal	57,056	643	<u>6,545</u> <u>6,561</u>	<u>1,510</u> <u>1,372</u>	62	<u>43</u> <u>14</u>	0	0	
GREATER SALINAS									
Greater Salinas	105,242	406	1,395	<u>487</u> <u>186</u>	<u>460</u> <u>156</u>	<u>35</u> <u>34</u>	1,528	<u>226</u> <u>426</u>	Acreage for planning area. 2030/Buildout numbers do not including cities and community areas. Includes or Butterfly Village.
Butterfly Village	<u>671</u>		<u>1,147</u>	<u>1,147</u>	4	4			<u>As approved</u>
Boronda CA	353	116	726	<u>278</u> <u>238</u>	69	<u>27</u> <u>26</u>	96	<u>234</u> <u>27</u>	
Subtotal	105,242	522	<u>2,124</u> <u>3,268</u>	<u>464</u> <u>1,571</u>	229	<u>62</u> <u>64</u>	1,624	<u>457</u> <u>453</u>	Policy GS-1.13 limits development in area north of Salinas.

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
NORTH COUNTY									
North County	30,910	577	3,260	436 435	238 228	50	40	6 11	Acreage for planning Area. 2030/Buildout numbers do not including community areas.
Pajaro CA	256	64	676	259 222	38	15	122	293 34	
Castroville CA	1,058	234	1,632	625 535	0	0	344	827 96	
Subtotal	30,910	875	5,568	1,319 1,192	266	65 64	506	1,126 141	Policy NC-1.5 limits development in all North County.
SOUTH COUNTY									
South County	820,628	746	939	426 125	77	17	8,713	1,290 2,429	Acreage for planning area. 2030/Buildout numbers do not include rural centers.
Bradley RC	65	30	800	306 262	3	1	0	0	
Lockwood RC	353	10	221	85 72	131	54 50	0	0	
Pleysto RC	441	16	160	64 52	152	59 58	0	0	
San Ardo RC	119	47	480	184 157	13	5	26	62 7	
Subtotal	820,628	849	2,600	761 670	376	129 131	8,739	1,352 2,437	

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
TORO									
Toro	47,263	251	4,046	<u>541</u> <u>540</u>	41	9	90	<u>43</u> Acreage for planning area. <u>25</u> 2030/buildout numbers do not include rural center or housing overlay area.	
River Road RC	630	251	389	<u>149</u> <u>128</u>	0	0	0	0	
Hwy 68/Reservation AHO	31	0	930	<u>356</u> <u>305</u>	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	<u>4,046</u> <u>973</u>	41	9	90	<u>43</u> Policy T-1.7 limits development in <u>25</u> Highway 68 corridor.	
TOTAL INLAND AREAS	1,788,575	4,629	35,918	10,015	1,795	500	11,158	3,111	Not including cities

Page 3-19. Revise Table 3-9 as follows.

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
COMMUNITY AREAS									
Chualar CA	350	20	1,500	574 <u>492</u>	4	2	27	65	Boundary TBD. Estimates based on 8 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 <u>2,823</u>	226	88 <u>86</u>	0	0	Fort Ord Reuse Plan = Master Plan = CA
Boronda CA	353	116	726	278 <u>238</u>	69	27 <u>26</u>	96	234 <u>27</u>	
Pajaro CA	256	64	676	259 <u>222</u>	38	15	122	293 <u>34</u>	
Castroville CA	1,058	234	1,632	625 <u>535</u>	0	0	344	827 <u>96</u>	
Subtotal	21,155	434	13,144	5,030 <u>4,310</u>	337	134 <u>129</u>	589	1,416 <u>164</u>	
RURAL CENTERS									
Pine Canyon RC	766	35	1,704	652 <u>559</u>	5	2	0	0	
San Lucas RC	155	71	169	65 <u>55</u>	2	1	32	77 <u>9</u>	
Bradley RC	65	30	800	306 <u>262</u>	3	1	0	0	

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
Lockwood RC	353	10	221	85 <u>72</u>	131	54 <u>50</u>	0	0	
Pleyto RC	441	16	160	61 <u>52</u>	152	59 <u>58</u>	26 <u>0</u>	62 <u>0</u>	
San Ardo RC	119	47	480	184 <u>157</u>	13	5 <u>26</u>	6 <u>7</u>	4 <u>7</u>	
River Road RC	630	251	389	149 <u>128</u>	0	0	0	0	
Subtotal	2,529	460	3,923	1,501 <u>1,286</u>	306	119 <u>117</u>	58	139 <u>16</u>	
AHOS									
Carmel Mid-Valley AHO	40	0	390	149 <u>128</u>	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 <u>836</u>	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 <u>305</u>	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 <u>1,269</u>	3	04	0	0	
BUTTERFLY VILLAGE									
<u>Butterfly Village (BV)</u>	<u>671</u>		<u>1,147</u>	<u>1,147</u>	<u>4</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>As approved</u>
Total of CA, RA, AHOs, and BV	23,885 <u>24,556</u>	895	20,937 <u>22,084</u>	8,012	643 <u>647</u>	250	647	1,556 <u>180</u>	

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
UNINCORPORATED OUTSIDE OF CA, RA, AHOS									
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	24 39	
Greater Monterey Peninsula	57,056	642	3,995 4,011	534	62	13 14	0	0	
Greater Salinas	105,242 104,571	406	1,395	187 186	160	35 34	1,528	226 426	Excludes Butterfly Village
North County	30,910	577	3,260	436 435	228	50	40	6 11	
South County	820,628	746	939	126 125	77	17	8,713	1,290 2,429	
Toro	47,263	251	4,046	541 540	41	9	9 90	13 25	
Subtotal	1,769,437 1,768,766	3,734	14,981 14,997	2,003	1,152	250	10,511	1,556 2,931	
INLAND AREA TOTAL	1,793,322	4,629	35,918 37,081	10,015	1,795	500	11,158	3,111	
2030 new growth assumed in CA/RC/AHO/BV			80%	8,012	50%	250	50% 6%	1,556 180	
2030 new growth assumed not in CA/RC/AHO/BV			20%	2,003	50%	250	50% 94%	1,556 2,931	
Percent of new growth by 2030			27%	10,015	28%	500	28%	3,111	

Page 3-22. The first paragraph is revised as follows:

This EIR addresses the environmental effects associated with implementation of the 2007 General Plan. The 2007 General Plan's policies seek to 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 seeking to guide future growth in the unincorporated areas and ensure that new and existing development is served with adequate public services and facilities.

Page 3-23. Revise Table 3-11 as follows:

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 (<u>which includes rural residential, parks and recreation facilities, and very low intensity agricultural and timber production-related facilities</u>), 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.

Page 3-25 is revised as follows:

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 37,081 35,918 residential units would be built in the unincorporated areas by 2092 (full buildout) if sufficient water supply and other services are available.

Page 3-28, under “Special Treatment Areas.” Add the following.

For reference, the Special Treatment Areas discussed in this section can be located in the General Plan under the following policy numbers: Butterfly Village, GS-1.1; Spence/Potter/Encinal Road, GS-1.2; Highway 68/Foster Road Area, GS-1.3; Natividad/Rogge Road, GS-1.10; and Jefferson, GS-1.12.

For locations of the Special Treatment Areas in this section, please see the General Plan, Figure LU-7.

Page 3-30, under “Special Treatment Areas.” Add the following.

For reference, the Special Treatment Areas discussed in this section can be located in the General Plan under the following policy numbers: Spence/Potter/Encinal Road, GS-1.2; Paraison Hot Springs, CSV-1.1; Old Mission Union School, CSV-1.5; Lohr, CSV-1.6; Millers Lodge, CSV-1.7.

For locations of the Special Treatment Areas in this section, please see the General Plan, Figure LU-4.

Page 3-31, under “Special Treatment Areas.” Add the following.

For reference, the Special Treatment Areas discussed in this section can be located in the General Plan under the following policy numbers: Rancho San Carlos, GMP-1.6; White Rock Club, GMP-1.7; San Clemente Ranch, GMP-1.8, Jefferson, GS-1.12.

For locations of the Special Treatment Areas in this section, please see the General Plan, Figure LU-5.

Page 3-32, under “3.4.5.5 Carmel Valley Master Plan.” Revise the second paragraph as follows.

~~At the time of this writing~~ When the DEIR was released for public review, a request to incorporate the proposed Town of Carmel Valley ~~is~~ was 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 the The incorporation proposal was subsequently defeated in a November 2009 vote on the question, the new Town would assume authority over land use decisions within its boundaries.

Page 3-33, under “Special Treatment Areas.” Add the following.

For reference, the Special Treatment Areas discussed in this section can be located in the General Plan under the following policy numbers: Carmel Valley Ranch, CV-1.22; Condon/Chugach Property, CV-1.23; Rancho San Carlos, CV-1.25; Rancho Canada Village CV-1.27.

For locations of the Special Treatment Areas in this section, please see the General Plan, Figure LU-3.

Page 3-35, under “Special Treatment Areas.” Add the following.

For reference, the Special Treatment Area discussed in this section can be located in the General Plan under the following policy numbers: Greco, T-1.4.

For locations of the Special Treatment Area in this section, please see the General Plan, Figure LU-10.

Page 3-37, under “Special Treatment Areas.” Add the following.

For reference, the Special Treatment Area discussed in this section can be located in the General Plan under the following policy numbers: Syndicate Camp, CACH-1.5.

For locations of the Special Treatment Area in this section, please see the General Plan, Figure LU-2.

Page 3-41, Table 3-16. Revise the table as follows.

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	
Visitor Center			X

Page 3-45, second bullet under “Affordable Housing Overlays.” Revise the paragraph as follows.

- Highway 68/Monterey Peninsula Airport (Exhibit 3.26). Approximately 85 acres located ~~east~~south of Highway 68, excluding areas with native Monterey pine forest.

Page 3-47, second full paragraph. Revise the paragraph as follows.

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

Page 3-47, second full paragraph. Revise the fifth and sixth bulleted items as follows.

- *OS-3.5—regulate development on steep slopes. This policy would apply to theroutine and ongoing conversion to agricultural use of previously uncultivated lands.*
- *OS-3.6—develop slope density requirements and standards for clustering development.*

Section 3 Exhibits. Exhibits 3.2 and 3.2a were revised to show land uses at the Carmel Valley Ranch as they are designated in the project's specific plan. Exhibit 3.3 was amended to accurately define the wine corridors. This exhibit is located at the end of this chapter.

Section 4.1, “Land Use”

Page 4.1-2. The third paragraph is revised as follows:

The 2007 General Plan consists of policies that apply countywide throughout the unincorporated inland area and policies unique to a specific region. Countywide policies that are applicable to the entire unincorporated inland 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). As discussed below, no changes are proposed to the County's certified Local Coastal Program. So, although the proposed General Plan policies apply to all unincorporated inland areas, they do not include revisions to the adopted Local Coastal Plans.

Page 4.1-3, under “Local Coastal Program.” The third paragraph is revised as follows:

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 (Monterey County Code, Chapter 20.88 Capital Improvement Program20.86 Coastal Implementation Plan [CIP]):

Page 4.1-10. Line seven is revised as follows:

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 unincorporated areas of the county.

Section 4.2, “Agriculture Resources”

Page 4.2-5, under Agricultural Land Use. The first paragraph is revised as follows:

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 4.2.44.2.2, Regulatory

Framework, for further category definitions and discussion of this program). “Important Farmland” consists of “Prime Farmland,” “Farmland of Statewide Importance,” “Farmland of Local Importance,” and “Unique Farmland.” (Department of Conservation 1994)

Page 4.2-8. Add the following statement at the end of the discussion of the Farmland Mapping and Monitoring Program.

Under the separate California Conservancy Program, the state funds acquisition of property or development rights for the purpose of protecting farmland. Donations of funds to the Department of Conservation will be used in Monterey County for the purchase of development rights if so designated by the donor. This program is available at the present time to partially mitigate for the loss of farmland to annexation and conversion.

Page 4.2-9. The first paragraph following the bullet list is revised as follows:

When a land owner enters into a Williamson Act contract with ~~the~~^a County, the land is restricted to agricultural and compatible uses for at least 10 years. Since 1968, Monterey County's contracts have been for a minimum of 20 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.

Page 4.2-9. The third paragraph following the bullet list is revised as follows:

In 2007, 763,396 ~~732,118~~ acres of land in Monterey County were under Williamson Act contract, ~~with an additional~~ and 31,278 acres under the more restrictive Farmland Security Zone for a total of 763,396 acres (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. For the purposes of this analysis, 763,396 acres will serve as the figure used to determine impacts to Williamson Act lands.

Section 4.3, “Water Resources”

Page 4.3-3. The following text is added under Section 4.3.2, Existing Conditions before 4.3.2.1

Definitions: The following definitions are used in the analysis below:

- Watershed: the geographic area defining the area from which a river or stream derives its water. Rain falling within the watershed flows down to supply the particular river or stream.
- Groundwater basin: a groundwater reservoir defined by the overlying land surface and the underlying aquifers that contain water stored in the reservoir. The

boundaries of the basin are defined by geologic or hydrologic features that isolate it from other basins. A watershed may supply more than one groundwater basin.

- *Sub-basin or subarea:* A portion of a larger groundwater basin. A sub-basin is not geologically or hydrologically separate from the larger basin, but is distinguishable by having unique characteristics within the larger basin.
- *Study area:* an area studied for purposes of analyzing water supply and demand. In the case of the Monterey County General Plan Update, the study area is not limited to a single watershed or groundwater basin, but instead includes the County as a whole.

Page 4.3-7. The first sentence of the second bullet under Groundwater, is revised as follows:

- **180-Foot/400-Foot Area-Subarea** (also known as the Pressure Subarea) includes approximately 84,400 acres of the lower reaches and mouth of the Salinas River, between Gonzales and Monterey Bay.

Page 4.3-8. The bullet that follows the last full paragraph is revised as follows.

- The MCWRA completed the Castroville Seawater Intrusion Project (CSIP) in 1998. This project supplies farmers injects recycled water to take the place of withdrawals from the groundwater into the aquifer to establish a hydraulic barrier to further seawater intrusion.”

Page 4.3-10. Second sentence of second paragraph under “Seaside Area Groundwater Subbasin.” Revise the sentence as follows.

No major surface water features are located within the basin. Ultimately draining to the Salinas River to the north, tThe Seaside Area groundwater basin is composed of a number of smaller subbasins.

Page 4.3-11, beginning with the fifth paragraph under Seaside Area Groundwater Subbasin, is revised as follows:

During 2006Between 1996 through 2005, a total of 43,4004,011 acre-feet per year was reported produced in wells from the Seaside aquifer on average, including 3,710 3,695 acre-feet per year by Cal-Am and 1,296 316 acre-feet per year by other parties (MPWMD 2006a).

In recent yearsSince 1995, 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 SWRCB's Order 95-10 (discussed in detail in Section 4.3.2.5 Carmel River Conflicts, below) has limited diversion from the Carmel River in order to enforce water rights and 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 are underway or in the planning stages.

- Cal-Am and MPWMD's Seaside Basin Aquifer Storage and Recovery (ASR) project that injects water collected during peak flow of the Carmel River into the Seaside

Basin aquifer. This is described in detail in Section 4.3.2.5 (“Carmel River Watershed Conflicts”).

- Cal-Am's Coastal Water Project is a proposed 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, and two alternatives, are under consideration by the California Public Utilities Commission. The alternatives are: (1) a slightly larger capacity desalination plant in North Marina; and (2) a “Regional Water Supply Project” that would integrate several sources including a desalination plant in North Marina and a regional water treatment plant. A DEIR has been released and a FEIR is being written for the Coastal Water Project.
- 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 in the area of the former Fort Ord, north of 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, 2008).

Page 4.3-11, last paragraph is revised as follows.

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 Chupines and Rana Creeks), Pine Creek, Danish Creek, Cachagua Creek, and the Miller Fork.

Page 4.3-13, last paragraph under Carmel River Watershed is revised as follows.

An additional water supply issue in Carmel Valley is the potential unquantified impacts of increased water use and demand by riparian users from individual wells along the Carmel River. No action by the SWRCB or the courts has evaluated the cumulative impacts on the public trust resources by individual wells 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 additional individual wells represent a substantial increased demand on the water resource system and whether environmental impacts are associated with the potential increased demand. This is an existing condition and is not a result of the General Plan Update.

Page 4.3-14, first paragraph, penultimate sentence, is revised as follows.

In 2006, Cal-Am 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).

Page 4.3-14, beginning with the second paragraph under Groundwater, is revised as follows.

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, ~~Cal-Am~~ 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). As discussed elsewhere in this Section, Cal-Am is currently pumping in excess of its water rights and in violation of SWRCB Order 95-10, which requires it to reduce its use of Carmel River water to no more than 3,376 acre-feet annually. The SWRCB issued a cease and desist order on October 20, 2009 that establishes a timeframe for meeting this limit by 2016. (State Water Resources Control Board 2009)

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 South-Ceentral California Ceoast steelhead) and riparian habitat in the lower reaches of the river's course.

During 2006 Between 1996 through 2005, an total annual average of 13,400 11,015 acre-feet of water was reported produced in wells from the Carmel Valley aquifer River sources, including 10,954 acre-feet by Cal-Am and 2,435 acre-feet by other parties (Monterey Peninsula Water Management District 2006a). Of this amount, an annual average of 7,639 acre-feet of water consisted of unlawful diversions in excess of the limits set by Order 95-10.

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).

Page 4.3-14, second paragraph, last sentence, is revised as follows.

This condition has been cited as causing adverse impacts on native fish populations (most notably the ~~central coast steelhead~~ South-Central California Coast Steelhead) and riparian habitat in the lower reaches of the river's course.

Page 4.3-15, beginning with the second paragraph under North County Watersheds, the text is revised as follows.

~~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 Elkhorn Slough's 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~~approximately 95 percent 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 Area of Special Flood Hazard Area(SFHA) of the Pajaro River, as identified on the Federal Emergency Management Agency Flood Insurance Rate Maps, affects several hundred acres on both sides of the river channel. The SFHA delineates those areas with a one percent chance of flooding in any given year. It is commonly called the “100-year floodplain.” Much of this area is farmland, and~~however~~ the community of Pajaro in Monterey County is located entirely within the river's 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 within the Pajaro River floodplain (much of which is outside Monterey County). The March 1995 flood, for example, led to the evacuation of most of the town of Pajaro's 2,500 residents. (Department of Water Resources 2003, Monterey County Water Resources Agency 2010) 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 zone100-year floodplain 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.

Page 4.3-16, the first paragraph under Groundwater is revised as follows.

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 PVWMApart of the Pajaro Valley groundwater basin; and the Highlands South and Granite Ridge planning areas are

~~managed by MCWRA~~ part of the Salinas River groundwater basin (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.

Page 4.3-19, first paragraph under Salinas River Watershed is revised as follows.

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. The City of Salinas drains to the “Reclamation Ditch” and from there to Tembladero Slough, but not to the Salinas River. See the discussion of the NPDES program under “Clean Water Act” below.

Page 4.3-19, first paragraph under North County Watersheds is revised as follows.

There is relatively little urban land use in the North County, although suburban development is extensive. 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.

Page 4.3-22, third paragraph under Nitrate Contamination. The last sentence is revised as follows:

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). Refer to Table 4.3-2 Summary of Nitrate Concentration for 367 Wells in the Salinas Valley for information on variations in contamination levels in wells.

Page 4.3-23, first paragraph under Salinas Valley Watershed. The text of the last sentence is revised as follows:

New wells typically are drilled to a depth of 1000 feet or more and sealed to at least 450 feet; however, the depth to which production wells are drilled depends on the depth of water bearing formation and the degree of contamination in the subbasins. Well yield goals and hydrogeology also determine how deep wells are drilled and what aquifers are screened for supply. Well depths range from 600 feet to more than 1,200 feet.

Page 4.3-24, under Carmel River Watershed. Revise the first paragraph as follows.

In 1983, based on nitrate levels in groundwater identified in the Carmel Valley Wastewater Study included in the subsequent 1986 Carmel Valley Master Plan, the County Board of Supervisors adopted a resolution that prohibited prohibits further subdivision of lots within four subbasins of the Carmel River. Upon adoption of the

original Carmel Valley Master Plan, subdivision was allowed under a cap placed on the maximum allowable development within the planning area. In addition, discretionary permits are required of all development within the Master Plan area (Monterey County Municipal Code, Chapter 18.48). Proposed projects are analyzed in the context of the wastewater study and County standards for nitratesCurrently, 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 Master Planbasin. (Monterey County 2006; Monterey County Municipal Code Section 15.020.070(F)(16))

Page 4.3-25, last paragraph. The text is revised as follows:

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) The geographic location of the seawater intrusion is depicted in Exhibits 4.3.9 and 4.3.9a. Table 4.3-3 depicts the magnitude of this problem over time.

Page 4.3-27, first sentence under “North County Watersheds.” The text is revised as follows:

The North County groundwater subbasins are shown in Exhibit 4.3.78.

Page 4.3-28, first sentence of first paragraph. The text is revised as follows.

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 468 corridor. (The SR 68 corridor is the swath of land adjacent to and extended out from both sides of State Route (SR) 68. The SR 68 corridor extends from Salinas southwest to Monterey.)

Page 4.3-29, under “Water Sources.” The first paragraph is revised as follows.

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).

Page 4.3-31, Table 4.3-4. The table is revised as follows:

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)	<u>WMPWMD (and Fort Ord Reuse Authority), and MCWRA, and Seaside Groundwater Basin Watermaster</u>	Marina Coast Water District and Cal-Am

(Note: Fort Ord does not derive water from the Seaside aquifer nor is expected to in the future)

Page 4.3-31, first paragraph. The text is revised as follows:

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 desalination plant with a peak capacity of 300,000 gallons per day when in operation (Marina Coast Water District 2008). It is not currently operating. The MCWD is also involved in efforts to reduce seawater intrusion.

Page 4.3-33. Revise the last sentence of the first paragraph to read:

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.

Page 4.3-33, first paragraph after Table 4.3-5 is revised as follows.

MCWRA reports that in the 180-Foot/400-Foot Subarea (also known as the Pressure Zone subarea), west and 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 east and south of Salinas in the Pressure Zone subarea, 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 180-400-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.

Page 4.3-34, last paragraph. The paragraph is revised as follows.

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, modeling cannot be certain of the effectiveness of the SVWP beyond 2030. The model indicates that after 2030, 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).

Page 4.3-35, first paragraph under “Seaside Area Groundwater Basin. The paragraph is revised as follows.

Most of the Seaside Area groundwater basin is within the incorporated cities of Marina, Monterey, 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.

Page 4.3-36, first, second and third paragraphs. The paragraphs are revised as follows.

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 7,500

6,200 acre-feet. Current water use within the basin is about 5,600 AFY. (Monterey Peninsula Water Management District 2007, 2008).

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 and groundwater it had been diverting from the Carmel River and underlying Carmel Valley Alluvial Aquifer (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~~ basin every three years beginning in 2010 Water Year 2009, unless replenishment supplies are secured or groundwater levels are sufficient to prevent seawater intrusion. 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, as directed by the court 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). The adjudication of the basin ensures that future production rates will not exceed safe yield. Present production rates are therefore unsustainable.

Page 4.3-37, first paragraph under Salinas Valley Water Project. The reference to the "100-Foot/400-Foot" aquifer is a typographical error. It should read "180-Foot/400-Foot."

Page 4.3-37, first sentence of second paragraph under Salinas Valley Water Project. The sentence is revised as follows:

The SVWP includes the delivery of water to the CSIP, which provides surface water to an area totalling ~~project delivery area totals~~ about 12,000 acres. The service area of the SVWP is coterminous with Zone 2C and includes a much larger area than the CSIP. (Monterey County Water Resources Agency 2008a).

Page 4.3-38, first paragraph at the top of the page. The reference to the "100-Foot/400-Foot" aquifer is a typographical error. It should read "180-Foot/400-Foot."

Page 4.3-38, last full paragraph is revised as follows:

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, an investor-owned public utility a private water company that provides water to approximately 40,000 connections within the MPWMD.

Page 4.3-39, second full paragraph. The paragraph is revised as follows.

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. According to California's Groundwater - Bulletin 118, "DWR (1974) estimated the groundwater in storage in spring 1972 as 45,500 af [acre-feet], 39,300 af in fall 1972, and 52,500 af in spring 1973" within the Carmel River basin (California Department of Water Resources 2004). 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.

Page 4.3-39, fourth paragraph. The paragraph is revised as follows.

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~~was~~ charged by the State Water Board with diverting water from the Carmel River and underlying Valley Alluvial Aquifer unlawfully (Order WR 95-10, as amended by Orders and Order WR 98-04 and 2002-0002). While no additional demand within the basin, is proposed by the 2007 General Plan, Ceurrent restrictions on extraction in the basin intended to protect fish in the Carmel River-(WR Order 2001-04 DWR) under the State Water Board orders 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 to be set forth in the CDO (see the full discussion of State Water Board Orders under "Carmel River Conflicts").

Page 4.3-40, second paragraph. The paragraph is revised as follows.

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 ten temporary permits to MPWMD to allow diversions of 2,426 acre feet of water from the Carmel River between December and May for the years 1997 through 2007. In November 2007, the State Water Board issued a permanent permit to MPWMD and Cal-Am to allow diversions of up to 2,426 acre-feet from the Carmel River between December and May. (State Water Resources Control Board 2007) 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. Under the proposed operational plan, the 44maximum extraction would be approximately 2,0281,500 AFY, leaving a portion of the injected water in the Seaside Basin aquifer to allow for groundwater basinavailable for recovery during extended dry periods (Monterey Peninsula Water Management District 2005a).

Page 4.3-45, under Groundwater Management and Monitoring Programs. The first paragraph is revised as follows.

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.~~

The following definitions are used in this analysis:

- Long-Term Water Supply (safe yield) (as defined in Title 19.02.143): the amount of water that can be extracted continuously from the basin or hydrologic sub-area without degrading water quality, or damaging the economical extraction of water, or producing unmitigatable adverse environmental impacts.
- Long-Term Water Supply (as defined in the General Plan Glossary and used in specific General Plan policies): an available supply of water that can be extracted from a basin or hydrogeologic sub-area to service the existing and projected development in that basin or hydrogeologic sub-area for a twenty year period without degrading water quality, damaging the economical extraction of water, or causing significant unavoidable adverse environmental impacts.
- Long-term Sustainable Water Supply (as used in specific General Plan policies): the use of groundwater in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic or social consequences taking into account the effects of pumping (safe yield) and the ability to reverse trends that are depleting supply and renew basin functions through various means.
- Overdraft: The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin over the course of several climatic cycles.

“Long term water supply” as used and defined in the General Plan pertains to the evaluation of a project specific review or water system review. It typically would look at a more localized area than long term sustainable supply. Twenty years is the planning horizon for considering whether a water company, for example, has access to supply for 20 years, based on its technical, managerial and financial capabilities, permits from the CPUC and operational plans into the future. The 20-year time horizon is not part of the definition of “sustainable” supply. The term “Long term water supply” also applies to consideration of water quality trends in the service area and measures that will be undertaken to address impending problems or regulatory requirements. For a groundwater supply, a “long-term water supply” would need to have a safe yield for a minimum of a 20-year period.

“Long term sustainable water supply examines the groundwater basin or sub-area in a broader context and does not have a specific timeframe. It is based on consideration of whether the basin is likely to come into balance; that is, whether solutions are funded or in place to reverse general trends with respect to overdraft and seawater intrusion. It involves a more comprehensive evaluation of conditions in the groundwater basin including the economical extraction, effects on neighboring wells (the concept of “safe yield” as used in Title 19 of the County Code), amount of available water in storage, ability to renew and sustain basin functions over time, and ability to accommodate current and future growth and development. For a groundwater supply source a “long-term sustainable water supply” would have to have a sustainable yield without resulting in further overdraft over the long-term. 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.

This EIR relies on the concept of "long term sustainable water supply" as described above, including the concept of sustainable yield for groundwater supply sources.

Page 4.3-47, third bullet at the top of the page.

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 Order 2002-00022008).

Page 4.3-47, third and fourth paragraphs. The paragraphs are revised as follows.

In response to this order~~addition, because of growing concerns regarding the sustainable yield of the Seaside Groundwater Basin and the threat of seawater intrusion~~, Cal-Am filed a lawsuit to adjudicate the pumping and storage rights of the various groundwater pumpers of the Seaside ~~basin aquifer~~~~Groundwater Basin, where there is also concern about sustainable yield~~. In a final ruling on March 27, 2006, the court directed that current pumping in the basin, i.e., 5,600 AFY, be reduced by 10% every three years unless replenishment supplies are secured. Under the ruling, Cal-Am, which is the major pumper in the basin, is responsible for approximately 92% of the reduction in pumping. ~~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.

Page 4.3-50, first paragraph. The paragraph is revised as follows.

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]). In 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting storm water discharges from industrial sites (including construction sites that disturb five acres or more) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain storm water permits.

In late 1999, the U.S. EPA promulgated regulations, known as Phase II, requiring permits for storm water discharges from Small MS4s and from construction sites disturbing between one and five acres of land. A "Small MS4" is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collecting or conveying storm water; (ii) which is not a combined sewer; and (iii) which is not part of a Publicly Owned Treatment Works. (State Water Resources Control Board 2003) 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).

Page 4.3-50, third paragraph. The paragraph is revised as follows.

The MRSWMP applies this permit (and its receiving water limitations and design standards) to the County and other signatories within specific areas designated by the MRSWMP. 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. This includes:

- the proposed Boronda, Castroville, and Pajaro Community Areas;
- the westerly portion of the proposed Hwy. 68/Airport AHO;
- all of the Carmel Mid-Valley AHO; and
- all of the Hwy. 68/Reservation Road AHO.

It does not include any of the proposed Rural Communities.

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.

Consistent with the 2003 General Permit, the MRSWMP establishes six Minimum Control Measures as follows: public education and outreach; public participation/involve-ment; illicit discharge detection and elimination; construction site storm water runoff control; post-construction storm water management in new development and redevelopment; and pollution prevention/good housekeeping for municipal operations. The MRSWMP also includes specific Best Management Practices (BMPs) for each of these measures. Under the design standards of the General Permit, the MRSWMP will require the County to regulate storm water runoff from the following categories of projects located within the urbanized areas: single-family hillside residences; 100,000 square foot commercial developments; automobile repair shops; retail gasoline outlets; restaurants; residential subdivisions with 10 or more units; and parking lots of 5,000 square feet or with 25 or more parking spaces. Specific design requirements are set out in the General Permit for each of these categories.

Page 4.3-54. Table 4.3-8 is replaced with the following:

Table 4.3-8. Monterey County Water Bodies on the Central Coast Region's 2008 Section 303(d) List of Impaired Waters

Water Body Name	Pollutant	List Status	TMDL Due Date	2008 Changes
Alisal Creek	Chlorophyll-a	TMDL req'd.	2013	New
	Fecal coliform	TMDL req'd.	2013	Existing
	Nitrate	TMDL req'd.	2013	Existing
	Sodium	TMDL req'd.	2018	New
Alisal Slough	LDO	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	New
	Sediment Toxic	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd.	2013	New
Arroyo Seco River	Fecal coliform	TMDL req'd.	2021	New
	Temperature	TMDL req'd.	2021	New
Bennett Slough	Chlorophyll-a	TMDL req'd.	2021	New
	LDO	TMDL req'd.	2021	New
	pH	TMDL req'd.	2021	New
Blanco Drain	Chlorpyrifos	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	LDO	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	New
	Pesticides	TMDL req'd.	2013	Existing
	Turbidity	TMDL req'd.	2013	New
Carneros Creek	Ammonia	TMDL req'd.	2021	Existing
	Chlorophyll-a	TMDL req'd.	2021	New
	Fecal coliform	TMDL req'd.	2021	New
	LDO	TMDL req'd.	2021	New
	pH	TMDL req'd.	2021	New
	Turbidity	TMDL req'd.	2021	New
Chualar Creek	Ammonia	TMDL req'd.	2013	New
	Chlorpyrifos	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2013	New
	Fecal coliform	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	New
	pH	TMDL req'd.	2013	New
	Temperature	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd.	2013	New
Elkhorn Slough	LDO	TMDL req'd.	2021	New
	Pesticides	TMDL req'd.	2021	Existing
	pH	TMDL req'd.	2021	New
	Sed/siltation	TMDL req'd.	2021	Existing
	Total coliform	TMDL req'd.	2021	New
Esperanza Creek	Nitrate	TMDL req'd.	2013	New

Water Body Name	Pollutant	List Status	TMDL Due Date	2008 Changes
Espinosa Lake	Chlorpyrifos	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
Espinosa Slough	Ammonia	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	New
	Pesticides	TMDL req'd.	2013	Existing
	pH	TMDL req'd.	2013	New
	Priority organics	TMDL req'd.	2013	Existing
	Sed. Toxicity	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
	Unk. toxicity	TMDL req'd.	2013	New
Gabilan Creek	Ammonia	TMDL req'd.	2013	New
	Fecal coliform	TMDL req'd.	2013	Existing
	Nitrate	TMDL req'd.	2013	Existing
	pH	TMDL req'd.	2013	New
	Sed. Toxicity	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd.	2013	New
Majors Creek	Copper	TMDL req'd.	2021	New
	E. coli	TMDL req'd.	2021	New
	Lead	TMDL req'd.	2021	New
	Zinc	TMDL req'd.	2021	New
Merrit Ditch	Ammonia	TMDL req'd.	2013	New
	LDO	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	New
	Sed. Toxicity	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd.	2013	New
Monterey Harbor	Metals	TMDL req'd.	2021	Existing
	Sed. Toxicity	TMDL req'd.	2021	New
Morro Cojo Slough	Ammonia	TMDL req'd.	2021	Existing
	E. coli	TMDL req'd.	2021	New
	LDO	TMDL req'd.	2021	Existing
	Pesticides	TMDL req'd.	2021	Existing
	pH	TMDL req'd.	2021	New
	Sed/siltation	TMDL req'd.	2021	Existing
	Total coliform	TMDL req'd.	2021	New
Moss Landing Harbor	Chlorpyrifos	TMDL req'd.	2021	New
	Diazinon	TMDL req'd.	2021	New
	LDO	TMDL req'd.	2021	New
	Nickel	TMDL req'd.	2021	New
	Pathogens	TMDL req'd.	2021	Existing
	Pesticides	TMDL req'd.	2021	Existing
	pH	TMDL req'd.	2021	New
	Sed/siltation	TMDL req'd.	2021	Existing
	Unk. Toxicity	TMDL req'd.	2021	New

Water Body Name	Pollutant	List Status	TMDL Due Date	2008 Changes
Natividad Cr.	Ammonia	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2013	New
	LDO	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	Existing
	pH	TMDL req'd.	2013	New
	Sed. Toxicity	TMDL req'd.	2013	New
	Temperature	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd.	2013	New
Old Salinas River	Chlorophyll a	TMDL req'd.	2013	New
	Chlorpyrifos	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2013	New
	Fecal coliform	TMDL req'd.	2013	New
	LDO	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	New
	pH	TMDL req'd.	2013	New
	Sed. Toxicity	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
Old Salinas River Estuary	Unk. Toxicity	TMDL req'd.	2013	New
	Ammonia	TMDL req'd.	2013	Existing
	E. coli	TMDL req'd.	2013	Existing
	LDO	TMDL req'd.	2013	Existing
	Nutrients	TMDL req'd.	2013	Existing
Pajaro River	Pesticides	TMDL req'd.	2013	Existing
	Boron	TMDL req'd.	2021	Existing
	Chlordane	TMDL req'd.	2021	New
	Chloride	TMDL req'd.	2021	New
	Chlorpyrifos	TMDL req'd.	2021	New
	DDT	TMDL req'd.	2021	New
	Dieldrin	TMDL req'd.	2021	New
	E. coli	TMDL req'd.	2011	New
	Fecal Coliform	TMDL req'd.	2011	Existing
	LDO	TMDL req'd.	2021	New
	Nitrate	Being addressed		Existing
	Nutrients	Being addressed		Existing
	PCB	TMDL req'd.	2021	New
	pH	TMDL req'd.	2021	New
	Sed/siltation	Being addressed		Existing
	Sodium	TMDL req'd.	2021	New
	Turbidity	TMDL req'd.	2021	New

Water Body Name	Pollutant	List Status	TMDL Due Date	2008 Changes
Quail Creek	Ammonia	TMDL req'd.	2013	New
	Chlorpyrifos	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2013	New
	Fecal coliform	TMDL req'd.	2013	New
	LDO	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	Existing
	Sed. Toxicity	TMDL req'd.	2013	New
	Temperature	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
Salinas Rec Canal	Unk. Toxicity	TMDL req'd.	2013	New
	Ammonia	TMDL req'd.	2013	Existing
	Chlorpyrifos	TMDL req'd.	2013	New
	Copper	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2013	New
	Fecal coliform	TMDL req'd.	2013	Existing
	LDO	TMDL req'd.	2013	Existing
	Nitrate	TMDL req'd.	2013	New
	Pesticides	TMDL req'd.	2013	Existing
	pH	TMDL req'd.	2013	New
	Priority organics	TMDL req'd.	2013	Existing
	Sed. Toxicity	TMDL req'd.	2013	New
Salinas River (lower)	Turbidity	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd.	2013	New
	Chlordane	TMDL req'd.	2013	New
	Chloride	TMDL req'd.	2018	New
	Chlorpyrifos	TMDL req'd.	2013	New
	DDT	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	Dieldrin	TMDL req'd.	2013	New
	TDS	TMDL req'd.	2018	New
Salinas River (middle)	Toxaphene	TMDL req'd.	2013	Existing
	Turbidity	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2021	New
	Fecal coliform	TMDL req'd.	2021	New
	Pesticides	TMDL req'd.	2021	Existing
	pH	TMDL req'd.	2021	New
Salinas River (upper)	Temperature	TMDL req'd.	2021	New
	Turbidity	TMDL req'd.	2021	New
	Unk. Toxicity	TMDL req'd.	2021	New
	Chloride	TMDL req'd.	2021	Existing
	pH	TMDL req'd.	2021	New
Salinas River Lagoon (north)	Sodium	TMDL req'd.	2021	Existing
	Nutrients	TMDL req'd.	2013	Existing
Salinas River Refuge Lagoon	Pesticides	TMDL req'd.	2013	Existing
	pH	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New

Water Body Name	Pollutant	List Status	TMDL Due Date	2008 Changes
San Antonio River	E. coli	TMDL req'd.	2021	New
	Fecal coliform	TMDL req'd.	2021	New
San Lorenzo Creek	Boron	TMDL req'd.	2021	Existing
	Chloride	TMDL req'd.	2021	New
	Elec. Conduct.	TMDL req'd.	2021	New
	E. coli	TMDL req'd.	2021	New
	Fecal coliform	TMDL req'd.	2021	Existing
	pH	TMDL req'd.	2021	New
	Sodium	TMDL req'd.	2021	New
Santa Rita Cr.	Ammonia	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2013	New
	Fecal coliform	TMDL req'd.	2013	New
	LDO	TMDL req'd.	2013	New
	Nitrate	TMDL req'd.	2013	Existing
	Sodium	TMDL req'd.	2018	New
	Turbidity	TMDL req'd.	2013	New
Tembladero Slough	Chlorophyll	TMDL req'd.	2013	New
	Chlorpyrifos	TMDL req'd.	2013	New
	Diazinon	TMDL req'd.	2013	New
	Enterococcus	TMDL req'd.	2013	New
	E. coli	TMDL req'd.	2013	New
	Fecal Coliform	TMDL req'd.	2013	Existing
	Nitrate	TMDL req'd.	2013	New
	Nutrients	TMDL req'd.	2013	Existing
	Pesticides	TMDL req'd.	2013	Existing
	pH	TMDL req'd.	2013	New
	Sed. Toxicity	TMDL req'd.	2013	New
	Total coliform	TMDL req'd.	2013	New
	Turbidity	TMDL req'd.	2013	New
	Unk. Toxicity	TMDL req'd..	2013	New
Tularcitos Cr.	Chloride	TMDL req'd.	2021	New
	Fecal coliform	TMDL req'd.	2021	New
	Sodium	TMDL req'd.	2021	New

Source: Central Coast Regional Water Quality Control Board 2009b.

Page 4.3-65, last paragraph. The paragraph is revised as follows.

The MPWMD is inbegan the process of preparing a long-term *Seaside Basin Groundwater Management Plan* following AB 3030 guidelines in March 2004. This effort was superseded by the Seaside Basin adjudication proceedings and the decision that was issued in March 2006. 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.

Page 4.3-70, under “Assembly Bill 885 Onsite Wastewater Treatment Regulations.”
The second paragraph is revised as follows.

~~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.~~

The SWRCB initiated the formal rulemaking to implement AB 885 in November 2008. In response to public comments on the draft regulations, the Board is re-writing their proposal. There is currently no schedule for the release of a draft of the revised regulations.

The Central Coast RWQCB has adopted an amendment to its Basin Plan (Resolution No. R3-2008-0005) that revises that Plan’s provisions for onsite wastewater management plans. The amendment establishes stricter requirements for these onsite systems. That amendment has been submitted to the SWRCB for approval. The Central Coast RWQCB is expected to proceed with its Basin Plan amendment independent of the AB 885 regulations. (Central Coast RWQCB 2008)

In 2007, the Central Coast RWQCB – citing its concern over water quality impacts from septic tank systems – directed Monterey County to conduct an area-wide study of the urbanized part of the Carmel Highlands that has individual sewage disposal systems and to develop an Onsite Wastewater Management Plan (OWMP) to protect water quality. The County responded by adopting an interim ordinance restricting new development with the potential to generate wastewater and to limit the installation of new water wells (Ordinance 5086). The ordinance was subsequently extended twice, expiring in October 2009, while the County prepared the requisite Carmel Highlands Onsite Wastewater Management Study and the Carmel Highlands OWMP.

The County Board of Supervisors considered and adopted the OWMP at its December 15, 2009 meeting. The OWMP has been submitted to the Central Coast RWQCB for approval by its Executive Officer. The Board of Supervisors has directed County staff to bring forward amendments to the County Code to incorporate the recommendations of the OWMP regarding sewage disposal standards, new domestic water well water quality testing, and water well pumping requirements.

In order to ensure that alternative onsite wastewater treatment systems are properly regulated during the period while the AB 885 regulations are being sorted out, Policy PS-4.10 is to be revised as follows:

PS-4.10 Prior to approval of any new alternative onsite wastewater treatment systems subsequent to adoption of the 2007 General Plan, the County shall develop an alternative wastewater system management program, consistent with the regulations pursuant to AB885 and required Regional Water Quality Control Board requirements, to administer and monitor the use of alternative wastewater systems, pursuant to State law and regulations, may be considered for Repairsrepairs to existing systems are exempt from this and existing lots of record if the requirements for a septic system cannot be met per Monterey County Code 15.20 and the Central Coast Basin Plan. The design and

operation of the alternative wastewater treatment system must conform to Monterey County Code 15.20 and the Central Coast Basin Plan.

Page 4.3-75, under Monterey Peninsula Water Management District. Insert the following paragraph after the end of the second paragraph.

The MPWMD has adopted rules that regulate the use of water within its jurisdictional boundaries. These include rules for protection of water resources and water conservation. Rule 124 concerns Carmel River Management and Regulations. This rule requires that property owners obtain a valid River Work permit issued by MPWMD for any work within the riparian corridor. Ordinance 135, adopted by the MPWMD Board on September 29, 2008, amended the MPWMD's rules for the staged water restrictions that are imposed during water emergencies when available supplies are projected to be insufficient to meet demands. The amendments were made in response to the adjudication of groundwater in the Seaside Basin and the expected outcome of the SWRCB's cease and desist order regarding CalAm's unauthorized use of water originating from the Carmel River.

Page 4.3-78. Revise the first full paragraph as follows.

Any work Work in the Salinas River and Arroyo Seco River channels is exempted if it is covered by a USACE 5-year regional Section 404 permits, approved by the CDFG and the MCWRA. would require a Section 404 permit from the U.S. Army Corps of Engineers. All other work requires a separate permit from state and federal these agencies, subject to environmental review.

Page 4.3-91, beginning of first full paragraph. The paragraph is revised as follows:

Development of residential, commercial (which, for the analysis of Impact WR-1, includes agricultural-related uses such as processing, support, and visitor-serving uses), and industrial land uses, as well as public facilities (e.g., roads, schools, maintenance and corporation yards, water supply, and wastewater facilities) create additional impervious surfaces and generate additional automobile use.

Page 4.3-97, Mitigation Measure BIO-2.1. The measure is revised as follows.

Mitigation Measure BIO-2.1: Stream Setback Ordinance.

The In order to preserve riparian habitat, conserve the value of streams and rivers as wildlife corridors and reduce sediment and other water quality impacts of new development, the county shall develop and adopt a county wide Stream Setback Ordinance. The ordinance shall 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 inland portions of 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 shall identify appropriate

uses within the setback area that would not cause removal of riparian habitat, compromise identified riparian wildlife corridors, or compromise water quality of the relevant stream.

The Stream Setback Ordinance shall apply to all discretionary development, County public projects 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 slopes over 10%. The stream setback ordinance shall be adopted within three (3) years of adoption of the General Plan.

Page 4.3-106, first paragraph under Significance Determination. The paragraph has been revised as follows:

For the purposes of this analysis, it was assumed that the policies of the 2007 General Plan would be fully implemented by 2092. It must be recognized, however, that future conditions may be altered in such a way that would prevent full implementation of the General Plan by 2092. It may also be assumed that federal and state regulatory requirements would be at least as stringent then as they are today.

Page 4.3-114, last paragraph. The paragraph has been revised as follows:

Agriculture will also place demands on raw water supplies. Based on trends in agricultural employment (AMBAG 2004; AMBAG 2008), no net expansion in overall agricultural acreage is projected for 2030 as virtually no increase in agricultural employment is forecast by AMBAG to 2030 for the county in the most recent (2008) and the immediately prior (2004) economic forecasts. The Salinas Valley Water Project EIR forecast a slight decline in agricultural water demand in the Salinas Valley for 2030 (MCWRA 2001a). While the amount of agricultural land use is expected to increase slightly, remain essentially constant during the 2030 planning horizon overall. However, agriculture's demands on water supplies in some areas are anticipated to increase in some areas (North County, pursuant to the projections in the Rancho Roberto FEIR, for example), while they are expected to decrease in other areas (Salinas Valley, pursuant to the SVWP FEIR, for example). Overall, agricultural water demand is expected to remain relatively stable, with a small decline, due to improvements in water use efficiency.

Page 4.3-115, Table 4.3-9. The table is replaced in its entirety with the following Tables 4.3-9a through 4.3-9h are added:

Table 4.3-9a. Monterey County 2007 Estimated New Water Demand from urban Uses and New Wineries (2030 and Beyond)
Estimated and Projected 2030 Water Demand

	Potential Buildout Units	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (3)	Buildout New Population (2)	Buildout New Water Demand (3)	Notes
Salinas Groundwater Basin							
Chualar CA	1,500	492	1,429	290	4,224	856	Calculated based on population
Fort Ord CA	8,610	2,823	8,201	1,663	24,246	4,916	Calculated based on population
Boronda CA	726	238	691	140	2,044	414	Calculated based on population
Castroville CA	1,632	535	1,554	315	4,596	932	Calculated based on population
Pine Canyon RC	1,704	559	1,624	329	4,798	973	Calculated based on population
San Lucas RC	169	55	160	32	476	96	Calculated based on population
Bradley RC	800	262	761	154	2,253	457	Calculated based on population
Lockwood RC	221	72	209	42	622	126	Calculated based on population
Pleyto RC	160	52	151	31	451	91	Calculated based on population
San Ardo RC	480	157	456	92	1,352	274	Calculated based on population
River Road RC	389	128	372	75	1,095	222	Calculated based on population
Hwy 68/Reservation AHO	930	305	886	180	2,619	531	Calculated based on population
Cachagua	66	9	26	5	186	38	Assumed 50/50 split between Carmel River and Salinas watershed basins
Central Salinas Valley	456	61	177	36	1,284	260	Calculated based on population
Greater Salinas	1,395	187	542	110	3,928	796	Calculated based on population
Butterfly Village (4)	1,147	1,147	3,332	-25	3,332	-25	Based on Addendum to FEIR for project
North County (5)	1,956	262	760	154	5,508	1,117	Assumed 60/40 split between Salinas River and Pajaro River

	Potential Buildout Units	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (3)	Buildout New Population (2)	Buildout New Water Demand (3)	Notes
South County	939	125	363	74	2,644	536	Calculated based on population
Toro	4,046	540	1,569	318	11,393	2,310	Calculated based on population
<i>Subtotal</i>	27,326	8,008	23,265	4,016	77,052	14,921	
Wineries and Ancillary in AWCP				326		326	Assumes all 40 artisan and 10 large-scale wineries built by 2030
INLAND Unincorporated Total	27,326	8,008	23,265	4,343	77,052	15,248	
Carmel River and Seaside Aquifer							
Greater Monterey Peninsula	4,011	536	1,557	316	11,295	2,290	Calculated based on population
Carmel Mid-Valley AHO	390	128	372	75	1,098	223	Calculated based on population
Hwy 68/Airport AHO	2,550	836	2,429	492	7,181	1,456	Calculated based on population
Cachagua	66	9	26	5	186	38	Assumed 50/50 split between Salinas and Carmel River basins.
Carmel Valley	758	101	294	60	2,135	433	Calculated based on population
INLAND Unincorporated Total	7,775	1,610	4,678	948	21,894	4,439	
Pajaro Groundwater Basin							
Pajaro CA	676	222	645	131	1,904	386	
North County	1,304	174	507	103	3,672	744	New demand in N. County planning area split 60/40 between Salinas/Pajaro basins.
INLAND Unincorporated Total	1,980	396	1,151	233	5,576	1,130	

	Potential Buildout Units	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (3)	Buildout New Population (2)	Buildout New Water Demand (3)	Notes
Monterey County Unincorporated Areas							
Total	37,081	10,015	29,094	5,525	104,522	20,817	Existing Demand from MPWMD 2006a. New Demand from calculations above. Total 2030 = Existing + New Demand

Notes:

- (1) Assumes persons/housing unit = 2006 to 2030 average (2.91 from DEIR Table 3-5 for unincorporated county for 2030).
- (2) Assumes person/housing unit = 2006 to Buildout average (2.82 from DEIR Table 3-5 for unincorporated county for buildout horizon)
- (3) Assumes per capita water use [urban applied water (including residential, commercial, industrial, and landscape uses) for Central Coast Region] of 181 gpd per California Water Plan Update 2005.
- (4) Butterfly Village water demand based on Project FEIR Addendum (Monterey County, 2008b).
- (5) 60/40 split based on Fugro West, Inc. 1995. North Monterey County Hydrogeologic Study. Prepared for Monterey County Water Resources Agency.

Table 4.3-9b. Water Supply and Projected Water Demand for 2030, Monterey County (acre feet)

Groundwater Basin	Salinas Valley (1,2)	Carmel River/ Seaside Aquifer (3)	Pajaro Valley (4)
Existing Demand	494,046	18,214	71,500
Projected City New Demand in 2030	29,539	3,273	(5)
Projected County New Demand in 2030	4,439	1,006	(5)
Projected Total Demand in 2030	442,458	22,493	78,192
Estimated 2030 Supplies (2)	443,000	22,344	72,100
Balance in 2030	542	-149	-6,092

Sources: See Tables 4.3-9c through 4.3-9h.

Notes:

1. Salinas Valley demand declines by 2030 due to reduction in agricultural demand. See Table 4.3-9c
2. Salinas Valley supply = groundwater. As discussed in text, with SVWP implementation, the expectation is that this amount can be provided without further lowering of groundwater tables or increased seawater intrusion compared to baseline levels.
3. Carmel River/Seaside Aquifer supplies is based on implementation of CWP, ASR, and several smaller projects. (See Table 4.9-4f). Excludes agricultural demand unless part of existing demand served by Cal-Am.
4. Pajaro Valley Basin includes areas of Santa Cruz County. See Table 4.3-9g for list of potential projects.
5. See Table 4.3-9g. PVWMA projections for urban growth include growth in Monterey County.

Table 4.3-9c. Salinas River Valley Estimated and Projected 2030 Water Demand

	Existing Demand	Potential Buildout Units	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (2)	2030 Total Population	2030 Total Demand	Notes
Unincorporated Urban Water Demand								
Chualar CA	1,500	492	1,429	290				Calculated based on population
Fort Ord CA	8,610	2,823	8,201	1,663				
Boronda CA	726	238	691	140				
Castroville CA	1,632	535	1,554	315				
Pine Canyon RC	1,704	559	1,624	329				
San Lucas RC	169	55	160	32				
Bradley RC	800	262	761	154				
Lockwood RC	221	72	209	42				
Pleyto RC	160	52	151	31				
San Ardo RC	480	157	456	92				
River Road RC	389	128	372	75				
Hwy 68/Reservation AHO	930	305	886	180				
Cachagua	66	9	26	5				Assumed 50/50 split between Carmel River and Salinas watershed basins
Central Salinas Valley	456	61	177	36				Calculated based on population
Greater Salinas	1,395	187	542	110				Calculated based on population
Butterfly Village (3)	1,147	1,147	3,332	-25				Based on Addendum to FEIR for project
North County (4)	1,956	262	760	154				Assumed 60/40 split between Salinas River and Pajaro River
South County	939	125	363	74				Calculated based on population

	Existing Demand	Potential Buildout Units	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (2)	2030 Total Population	2030 Total Demand	Notes
Toro		4,046	540	1,569	318			Calculated based on population
Wineries/Ancillary in AWCP					326			Assumes all 40 artisan and 10 large-scale wineries and ancillary uses built by 2030
<i>Inland Subtotal</i>		27,326	8,008	23,265	4,343			
North County-Coastal		585	164	477	97			Calculated based on population
Total	27,911	8,172	23,742	4,439	135,375			
City Urban Water Demand								
Gonzales				19,916	4,038	29,145		Calculated based on population
Greenfield				14,757	2,992	29,854		
King City				10,475	2,124	23,360		
Marina				12,185	2,470	35,357		
Salinas				66,376	13,457	213,063		
Soledad				21,987	4,458	51,634		
Total			145,696	29,539	382,413			
Total Urban Water Demand								
Total	50,479		169,438	33,979	517,788	84,458	Existing = 2005 (DEIR Table 4.3-1)	
Agricultural Demand								
Agricultural Demand		443,567				358,000	Existing = 2005 average (DEIR Table 4.3-1); 2030 = from SVWP EIR.	
Total	443,567					358,000		

	Existing Demand	Potential Buildout Units	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (2)	2030 Total Population	2030 Total Demand	Notes
Total Water Demand								
Total	494,046	27,911	16,180	169,438	33,979	517,788	442,458	2030 = Existing Urban Demand (2005) + New urban Demand (2030)+ Forecasted Agricultural Demand (2030).
SVWP EIS/EIR (5)						425,611	443,000	

Sources: California Department of Water Resources, 2005 California Water Plan Update.

Fugro West, Inc. 1995. North Monterey County Hydrogeologic Study. Prepared for Monterey County Water Resources Agency. October.

Monterey County. 2008b. Addendum #2 to the Final Environmental Impact Report for the Rancho San Juan Specific Plan and HYH Property EIR, SCH No. 2002121142. July 17.

Monterey County Water Resources Agency (MCWRA). 2001. Draft Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project. June.

RMC, 1998. Salinas River Basin Management Plan. 2030 Land Use and Water Needs Conditions. May.

Notes:

- (1) Assumes persons/housing unit = 2006 to 2030 average (2.91 from Table 3-5 for unincorporated county for 2030).
- (2) Per capita water use [urban applied water (including residential, commercial, industrial, and landscape uses) for Central Coast Region] = 181 gpd (CA Water Plan Update 2005), except for butterfly village.
- (3) Butterfly Village water demand based on Project FER Addendum (Monterey County, 2008b)
- (4) 60/40 split based on Fugro West, 1995.
- (5) MCWRA 2001 and RMC 1998. SVWP forecast used 1995 urban water use factors which does not take into account improvement in water use efficiencies.

Table 4.3-9d. Water Demands for Salinas Valley Estimated in the 2001 Salinas Valley Water Project EIR

	Population 2030	Water Demand (AF)
Cities		
Marina	24,913	4,400
Salinas	194,407	33,722
Gonzales	14,361	7,862
Soledad (w/ prison)	33,639	7,794
Greenfield	15,027	3,374
King City	29,024	10,851
City Subtotals	311,371	68,003
County		
Castroville	7,088	1,022
Fort Ord	37,370	6,600
Pressure		3,592
Toro/Ft. Ord		1,113
East Side	49,400	3,286
Forebay		1,120
Upper Valley		1,212
North County ¹	20,382	3,039
County Subtotals	114,240	20,984
<i>TOTAL URBAN WATER DEMAND²</i>	425,611	88,987
TOTAL URBAN WATER DEMAND³		85,000
Agricultural Demand		358,000
Total Demand		443,000

Sources: Monterey County Water Resources Agency (MCWRA). 2001. Draft Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project. June 2001.
RMC, 1998. Salinas River Basin Management Plan. 2030 Land Use and Water Needs Conditions. May.
Fugro West, Inc. 1995. North Monterey County Hydrogeologic Study. Prepared for Monterey County Water Resources Agency. October.

¹ No population estimate provided for North County portion (Highlands South and Granite Ridge) in SVWP EIS/EIR.
Fugro West (1995) study used to estimate forecast for 2030 units, then converted to population using 2.91/household.

² Total Urban water Demand shown above from RMC 1998.

³ DEIR for SVWP used 85,000 AF total, likely reflecting minor adjustment in calculation post-1998.

Table 4.3-9e. Carmel River/Seaside Aquifer Existing and 2030 Estimated Water Demand

	Existing Demand	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (2)	2030 Total Demand	Notes
Unincorporated Inland Areas (2007 GP)						
Greater Monterey Peninsula		536	1,557	316		
Carmel Mid-Valley AHO		128	372	75		Calculated based on population.
Hwy 68/Airport AHO		836	2,429	492		Calculated based on population.
Cachagua		9	26	5		Assumed 50/50 split between Salinas and Carmel River basins.
Carmel Valley		101	294	60		Calculated based on population.
Total		1,610	4,678	948		Calculated based on population.
Unincorporated Coastal Areas (1982 GP)						
Carmel		63	183	37		
Del Monte Forest		34	100	20		
Total		97	283	57		
Cities (AMBAG 2004)						
Carmel by the Sea				288		MPWMD 2006b
Del Rey Oaks				48		MPWMD 2006b
Monterey				705		MPWMD 2006b
Pacific Grove				1,264		MPWMD 2006b
Sand City				386		MPWMD 2006b
Seaside				582		MPWMD 2006b
Total				3,273		

	Existing Demand	Potential 2030 Units	2030 New Population (1)	2030 New Water Demand (2)	2030 Total Demand	Notes
Total Demand						
Total	18,214	1,707		4,279	22,493	Existing Demand from MPWMD 2006a and MPWMD 2008. New Demand from calculations above. Total 2030 = Existing + New Demand
Other 2030 Estimates						
CPUC (2009)	18,214			4,545	22,759	CPUC 2009 based on MPWMD 2006b

Sources: Department of Water Resources, 2005 California Water Plan Update.

California Public Utilities Commission, 2009. Coastal Water Project. Final Environmental Impact Report.

MPWMD, 2006a. Technical Memorandum 2006-02, Existing Water Needs of Cal-Am Customers within MPWMD boundaries and Non Cal-AM Producers Within the Seaside Groundwater Basin Adjusted for Weather Conditions During Water years 1996 through 2006. Value cited is weather - adjusted normal year demand.

MPWMD, 2006b. Existing Long-Term Water Needs by Jurisdiction Based on General Plan Buildout in Acre-Feet, May 18. As noted above totals for cities for buildout assumed to apply to 2030.

MPWMD, 2009. MPWMD 2007-2008 Mitigation Program Report.

Notes: (1) Assumed persons/unit for new to 2030 (2.91)

(2) Per capita water use [urban applied water (including residential, commercial, industrial, and landscape uses) for Central Coast Region] = 181 gpd (CA Water Plan Update 2005)

Table 4.3-9f. Existing and Future Water Supplies Carmel River/Seaside Aquifer

	Existing (2006/2007)	2015 - Existing Demands Only	2030	Source
Water Demand	18,214	18,214	22,493	1, 2, 3,4
Non-Cal-Am users (Carmel River – presumptive right)	3,119	3,119	3,119	2
Carmel River - Cal-Am Water Rights	3,376	3,376	3,376	5
Seaside Aquifer	2,913	2,913	2,913	6
Aquifer Storage and Recovery		920	920	5
<i>Subtotal Existing Sources</i>	<i>9,408</i>	<i>10,328</i>	<i>10,328</i>	
Pebble Beach Recycled Water Project			136	5
Other Water Recovery			300	5
Sand City Desalination			300	5
Coastal Water Project (CWP)		11,280	11,280	5
<i>Total Additional Supply (with CWP)</i>	<i>0</i>	<i>11,280</i>	<i>12,016</i>	
Total Supply (with CWP)	9,408	21,608	22,344	
<i>Supply/Demand Balance</i>	<i>-8,806</i>	<i>3,394</i>	<i>-149</i>	
Regional Water Supply Program (RWSP), Phase 1		15,200	15,200	5
<i>Total Additional Supply (with RWSP)</i>	<i>0</i>	<i>15,200</i>	<i>15,936</i>	
Total Supply (with RWSP, Phase 1)	9,408	25,528	26,264	
<i>Supply/Demand Balance</i>	<i>-8,806</i>	<i>7,314</i>	<i>3,771</i>	

Sources:

- (1) MPWMD, 2006a. *Technical Memorandum 2006-02, Existing Water Needs of Cal-Am Customers within MPWMD boundaries and Non Cal-AM Producers Within the Seaside Groundwater Basin Adjusted for Weather Conditions During Water years 1996 through 2006*. Value cited is weather - adjusted normal year demand.
- (2) MPWMD, 2009. MPWMD 2007-2008 Mitigation Program Report. Value of 3,119 AF for WY 2007 added to demand of Cal-AM customers from reference (1).
- (3) New demand for 2030 based on 2007 GP estimates in Table 4.3-9a for unincorporated county and entire buildout amount for cities from MPWMD 2006b for 2030.
- (4) MPWMD, 2006b. *Existing Long-Term Water Needs by Jurisdiction Based on General Plan Buildout in Acre-Feet*, May 18. As noted above totals for cities for buildout assumed to apply to 2030.
- (5) CPUC, 2009. Final EIR, Coastal Water Project, Tables 2-5 and 3-2. Total for CWP includes 380 AF additional for ASR project
- (6) Adjudicated Natural Safe Yield, from Monterey Superior Court Amended Decision in California-American Water vs. City of Seaside et al, Case No. M66343, filed February 9, 2007.

Note: Although a nominal surplus (25 percent) is shown for existing demands for 2015 (with completion of ASR and CWP projects), the water demand shown is normal-year demand and does not account for dry or critically dry -year demands. Thus, this should not be considered a true surplus in to but rather, mostly a reserve for use during critical years. Of note, the CWP project is limited to replacement of existing Cal-Am supplies and does not provide water to meet new water demands. RWSP Phase 1, includes 15,200 afy to meet the immediate needs of the Monterey Peninsula, and replace a previously approved supply for part of, the former Fort Ord, within the MCWD service area. Similarly, the nominal surplus for 2030 should not be seen as excess supply but rather reserve for dry or critically-dry years.

Table 4.3-9g. Existing and Future Water Supply and Demand Pajaro Groundwater Basin

	Current (2001)	2030 ¹	2040
Agricultural	59,300	63,092	64,400
Urban	12,200	15,100	16,100
Total Demand	71,500	78,192	80,500
Coralitos Creek Diversion	-1,100	-1,100	-1,100
Other Surface Water Diversions	-1,000	-1,000	-1,000
Total Groundwater Pumping	69,400	76,092	78,400
Basin Sustainable Yield	48,000	48,000	48,000
Required Additional Supply	21,400	28,092	30,400
CVP Import Pipeline		10,300	10,300
Recycled Water		4,000	4,000
Harkins Slough		1,100	1,100
Murphy Crossing		1,600	1,600
Supplemental Wells ²			
Coastal Distribution System ³			
Conservation		5,000	5,000
Total Potential New Supply⁴		22,000	17,000
Total Supply	50,100	72,100	67,100
Supply-Demand Balance	-21,400	-6,092	-13,400

Source: Pajaro Valley Water Management Agency, Revised Basin Management Plan, Draft EIR, 2004, except for 2030 demand estimates, which are interpolated.

¹ 2030 estimates for demands are an interpolation between 2001 and 2040. Given the limited (255 AF - see Table 4.3-9h) estimated new demands in Monterey County by 2030 in the Pajaro groundwater basin, the urban demand future numbers noted above from PVWMA were not revised as they reasonably approximate future demands across the basin.

² For supply, reliability, and peaking.

³ Facilitates delivery of water from supply projects.

⁴ Excludes Pajaro-Sunny Mesa desalination project due to lack of progress on project at this time. Does not include the Monterey Regional Water Supply Program, Phase 2 which could provide water to North County.

Table 4.3-9h. Pajaro River Basin Estimated New Water Demand from New Development in Unincorporated Monterey County, 2030

	Existing Demand (2004)	Potential 2030 Units	2030 New Population(1)	2030 New Water Demand (2)	2030 Total Water Demand	Notes
Pajaro CA	--	222	645	131	131	Existing demand included in North County
North County	23,345	174	507	103	23,448	New demand in N. County planning area split 60/40 between Salinas/Pajaro basins.
INLAND Unincorporated Total	23,345	396	1,151	233	23,578	

Sources: Department of Water Resources, 2005 California Water Plan Update (for per capita use)

EMC Planning Group. 2005. Rancho Roberto Subdivision Final Environmental Impact Report. Prepared for the Monterey County Planning and Building Inspection Department. Monterey, California. January 3, 2005 (Existing Demand for North County areas within Pajaro groundwater basin).

Notes: (1) Assumed persons/unit for new to 2030 (2.91)

(2) Per capita water use [urban applied water (including residential, commercial, industrial, and landscape uses) for Central Coast Region] = 181 gpd (CA Water Plan Update 2005)

Page 4.3-117, Table 4.3-10. Table 4.3-10 has been revised as follows:

Table 4.3-10. Water Supply Issue Summary for Community Areas

Community Area	Groundwater Basin	Water Supplier	Potable Water Availability Issues
Pajaro	Pajaro Valley basin	Pajaro/Sunny Mesa Community Services District	Overdraft; seawater intrusion; <u>nitrate and arsenic contamination</u>
Castroville	Salinas Valley basin (180-Foot/400-Foot Subarea)	Castroville Water District	Overdraft, seawater intrusion; conversion of agricultural land
Boronda	Salinas Valley basin (180-Foot/400-Foot Subarea)	California Water Service Company, Salinas District	Overdraft; seawater intrusion into 180-foot aquifer within 1 mile of Cal-Water's closest well (diverting production)
Chualar	Salinas Valley basin (180-Foot/400-Foot Subarea)	Cal-Am Water Company, Monterey District	Overall supply severely short, but Chualar wells are <u>managed</u> independent of larger basins and represent small fraction of District demand
Fort Ord	Salinas Valley basin (Seaside and Corral de Tierra Subareas)	Marina Coast Water District	Seawater intrusion; supply adequate unless Fort Ord Reuse Authority growth limits lifted (imbalance of 2,548 AFY)

(Note: Fort Ord does not derive water from the Seaside aquifer, nor is expected to in the future)

Page 4.3-117, under Castroville. Revise the first paragraph as follows.

Castroville is in the 180-Foot/400-Foot Subarea of the Salinas Valley basin, where, under current conditions, any additional pumping from the local groundwater would result in further seawater intrusion. Some of Castroville's future development would be through infill and intensification of already urbanized areas within the community.

Page 4.3-118, under Chualar. Revise the paragraph as follows.

Chualar is situated in a portion of the Salinas Valley groundwater basin that receives sufficient groundwater recharge and is not subject to seawater intrusion. Past and current agricultural practices have resulted in water quality degradation of the shallow aquifers (primarily high nitrate levels); however, potable water supply is available from deeper in the aquifer system. According to Cal-Am's 2005 UWMP, Chualar is one of the company's six Highway 68 corridor systems, which are managed independently of the larger basin systems and represents only a small portion 5% of Cal-Am's demand. Consequently, the area is not subject to Cal-Am's overall shortage conditions on the Monterey Peninsula. The level of growth anticipated for the proposed Community Area would not incur significant water supply impacts.

Page 4.3-118, last paragraph. Revise as follows.

Seawater intrusion forced relocation of the former Fort Ord's wells from the Main Garrison to a more inland location. However, these wells are also now at risk of seawater intrusion and therefore are not considered a sustainable source of supply to meet future water demands of the Fort Ord community. MCWD is currently drawing water from three wells in the non-sustainable Deep Zone, which, combined with the risk of further seawater intrusion from continued pumping in the 180- or 400- foot aquifers, rules out possibilities for meeting the Community Area's water demands from local groundwater sources. MCWD is the only current significant user of the Deep Aquifer. (Marina Coast Water District 2005) In response, MCWD recently (2007) constructed a reverse osmosis desalination plant to convert seawater to potable drinking water in 1996, which became operational in 1997. Due to recent rises in energy costs and the lack of need for the water, the plant is currently not in operation. (Marina Coast Water District 2008). When operating, this facility can provide up to 300,000 gallons of potable water per day.

Page 4.3-119, first full paragraph. Revise the paragraph as follows.

Potential water sources for these uses future water demands of the Fort Ord community include development of a new well field in the vicinity of Spreckels (where sufficient recharge occurs to preclude significant impacts) with conveyance facilities to Fort Ord; and a desalination plant proposed by Cal-Am at Moss Landing. The Fort Ord Reuse Plan identified a need to augment available potable water supply by 2,400 AFY to accommodate future development. This projection assumed the availability of an additional 6,600 AFY under an agreement with MCWRA that includes Fort Ord as a beneficiary of the SVWP. (Cal Am Coast Water Project DEIR, Section 5.1.3, *Regional Water Supply and Demand*, pp. 5-6). According to the East Garrison DSEIR, the 6,600 AFY "comes from wells developed in the Salinas Valley Groundwater Basin," that is, the MCWD's existing source. (Monterey County 2004a) The additional 2,400 AFY identified in the Fort Ord Reuse plan as needed for future development would have to come from an additional supply project such as the regional water augmentation program. (MCWD 2005) but would not come from the Coastal Water Project, which is limited from providing water for future growth. Sources for both the 6,600 AFY and the additional 2,400 AFY remain unclear, uncertain, pending approval of Cal Am's Coastal Water Project. In the summer of 2009, the MCWRA, MCWD, and other agencies entered an agreement to discuss some form of regional project (starting from the 'Regional Project' discussed in the FEIR for the Coastal Water Project) that could provide a more secure water supply for the Fort Ord community. These discussions are ongoing.

Page 4.3-120, Third paragraph under "Rural Centers and Development outside Focused Growth Areas". Revise paragraph as follows.

Legal lot development may occur outside the service areas of water districts, in which case it would be served by individual water wells. As noted in the setting discussion, the groundwater basins in the North County and the Seaside aquifer, as well as the Carmel Valley basin, are overrafted, and future Future development in the North County there will exacerbate that significant effect. The impact of future development within the Seaside basin and Carmel Valley is restricted by the terms of adjudication of that basin, restrictions on CalAm's reliance on water from the Carmel River, as well as the existing regulatory scheme of the MPWMD, which make impacts within that area less than significant to 2030.

Page 4.3-121, Table 4.3-11. The table is replaced in its entirety with the following Table 4.3-11:

Table 4.3-11. Projected AWCP Winery and Ancillary Use Yearly Water Demand

New Wineries						
Type of Winery	Cases per winery	Number of Wineries	Cases	Water Demand per Winery (gallons)	Water Demand per winery (acre-feet)	Total Demand (acre-feet)
Artisan (25K cases per year)	25,000	40	1,000,000	580,500	2	71
Full-scale (75K cases per year)	75,000	5	375,000	1,741,500	5	27
Full-scale (175K cases per year)	175,000	2	350,000	4,063,500	12	25
Full-scale (375K cases per year)	375,000	1	375,000	8,707,500	27	27
Full-scale (750K cases per year)	750,000	1	750,000	17,415,000	53	53
Full-scale (1.5M cases per year)	1,500,000	1	1,500,000	34,830,000	107	107
Total Water Demand—all wineries (acre-feet)		50	4,350,000	67,338,000	207	310
Ancillary Uses						
Ancillary Use	Units	Size	Number	Demand per Unit	Source	Total Demand
Winery Tasting Rooms	seats	20	10	0.02	MPWMD, restaurant	4
Restaurants	seats	50	3	0.02	MPWMD, restaurant	3
Delicatessens	Square feet	1,500	5	0.0002	MPWMD, deli	2
Inns	rooms	10	8	0.1	MPWMD, hotel	8
Subtotal						17
Total Water Demand						
Total Winery and Ancillary Uses						326

Sources for Factors: Winery water demand from Napa County. No Date. Phase 1 Water Availability Analysis worksheet. Includes both process water, landscaping, and domestic use.

Ancillary use factors from MPWMD. No. Date. Non-Residential Water Release Form and Water Permit Application.

Page 4.3-125, under Carmel Valley Master Plan. Revise the fourth sentence as follows.

Water projects designed to address future growth in the Carmel Valley ~~shall~~will be supported (Policy CV-5.2). Conservation and reclamation projects ~~should~~shall be incorporated into project design (Policy CV-5.3).

Page 4.3-125, under Cachagua Area Plan. Revise the second sentence as follows.

CACH-5.1 states that the area should not be deprived of water reasonably required for the beneficial needs of its inhabitants and that water ~~should~~shall not be exported outside the planning area boundaries.

Page 4.3-126, under Significance Determination. Add the following.

Implementation of the 2007 General Plan will increase water demand for urban and other uses. Increased water demand could require additional water supply infrastructure (which is discussed below under Impact WR-5), result in groundwater overdraft (which is discussed below under Impact WR-6), or exacerbate seawater intrusion (which is discussed below under Impact WR-7). Increased water demand could also result in effects to special status species and biological resources that are water dependent including riparian vegetation, steelhead, and California red-legged frog, among others.

Page 4.3-127, second paragraph. Revise the third sentence as follows.

Policy PS-3.1 prohibits approval of new development (except for the first single family dwelling and non-habitable accessory uses on an existing lot of record) that lacks proof of sustainable water supply.

Page 4.3-127, fourth paragraph. Revise as follows.

Salinas Valley

In the Salinas Valley, the SVWP will provide sufficient additional supplies from the system's reservoirs to meet 2030 projected demands and halt further seawater intrusion. The impacts of the 2007 General Plan would be less than significant within the Salinas Valley for water supply during the 2030 planning horizon.

For the Granite Ridge/HIGHLANDS South area, impacts to water supply would be less than significant because SVWP brings balance to basin overall and revised Policy PS-3.4 will address localized individual well effects on water quality, well interference, and localized overdraft. The proposed Granite Ridge supply project will also assist to help address local issues.

For discretionary development in the El Toro Creek groundwater subbasin, General Plan policies (including, but not limited to Policy PS-3.1, 3.3, and T-1.7) will delay development (other than single-family residential development on lots of record that do not require a discretionary permit for other reasons) where long-term water supplies do not exist and thus avoid significant impact to water supply and groundwater overdraft due to discretionary development. For ministerial development in the El Toro Creek groundwater subbasin, the minor amount of new well demand (estimated as around ~97

acre-feet due to 194 vacant lots of record) is considered to have a less than significant impact on groundwater overdraft relative to recharge in the basin of 2,000 to 3,000 AFY with implementation of Policy PS-3.4 to assess well water quality and avoid well interference. More specifically, Policy T-1.7 will constrain residential subdivision in residentially designated areas within the El Toro Creek subbasin and Policy PS-3.4 will address localized individual well effects on water quality, well interference, and localized overdraft.

Page 4.3-130, first paragraph under Mitigation Measures. The paragraph is revised as follows:

The following measure is intended to reduce impacts on the Monterey Peninsula during the 2030 planning horizon to below a level of significance. However, for the reasons discussed above and as disclosed below, while this measure will reduce the impact, it will not do so sufficiently to avoid this being a significant and unavoidable impact. However, other regulatory restrictions on water use will reduce the impact below a level of significance. There there are no feasible measures that would reduce the impacts of development on existing lots of record in the North County and the Pajaro River portion of the North County below a level of significance.

Page 4.3-130, Mitigation Measure WR-1. The measure is revised as follows.

WR-1: 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 additional 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 basins from saltwater intrusion. The County will also participate in regional groups including representatives of the Pajaro Valley Water Management Agency and the County of Santa Cruz to identify and support a variety of new water supply, water management and multiple agency agreement that will provide additional domestic water supplies for the Pajaro Groundwater Basin. The County's general objective, while recognizing that timeframes will be dependent on the dynamics of each of the regional groups, will be to complete the cooperative planning of these water supply alternatives within five years of the adoption of the General Plan and to implement the selected alternatives within five years after that time.

Page 4.3-130, Mitigation Measures. The following measure is added above “Significance Conclusions”

Mitigation Measure BIO-2.3: Add Considerations regarding Riparian Habitat and Stream Flows to Criteria for Long-Term Water Supply and Well Assessment

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:

- 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.
- 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.

Page 4.3-130, third paragraph under Significance Conclusion. The paragraph is revised as follows:

On the Monterey Peninsula and in the Pajaro Valley, while current planning is underway to address current problems and provide water for new development, none of the major supply projects is sufficiently developed (i.e., none are at the DEIR phase) to conclude that they will provide adequate water to address current problems and future needs.

Mitigation Measure WR-1 puts the County on record as supporting a regional solution (but not necessarily those currently proposed). 2007 General Plan policies will constrain development until long-term water supplies are assured. Until then, non-discretionary development on legal lots of record will exacerbate existing water supply problems in the North County, including the Pajaro Valley. Restrictions on the development of legal lots of record along the Carmel River and requirements of the adjudication of the Seaside basin, as well as the regulatory standards of the MPWMD will ensure that development of lots of record on the Monterey Peninsula will not exacerbate existing problems.

General Plan Policies PS 3-1 and PS 3-3 delay discretionary development until long-term sustainable water supplies are available. Thus impacts of new water demand from development allowed by the 2007 General Plan are less than significant on water supply since the aforementioned policies will properly control demands in light of extant and future supplies. , and this However, due to the lack of current and future supplies to address current and future water supply shortfalls, this is considered a significant and unavoidable water supply impact (see separate discussion under Impact WR-5 below regarding water supply infrastructure) in the North County, including the Pajaro Valley.

Page 4.3-131, fourth paragraph. The paragraph is revised as follows:

The SVWP has the capacity to provide additional water to the Salinas Valley with expansion of the distribution system, capture of additional flows through changes in operational management of the dams, and continued trends of per capita conservation. The MCWRA estimates this to be as much as 10,000 AFY, which would be slightly more than estimated as needed for new post-2030 demand (~9,000 acre-feet; see Table 4.3-9a which includes raw demand of 10,905 acre-feet after 2030; when taking into account 20 percent mandated reduction, new demand would be approximately 8,724 acre-feet).

Page 4.3-132. The third full paragraph is revised as follows:

Global climate change will have some effect on future precipitation patterns in this part of California in the future. That might in turn affect available water supplies in the reservoirs at the upper end of the Salinas River. What that effect will be is unknown and is not reasonably foreseeable. The California Department of Water Resources reports that California's precipitation is on an upward trend since the 1960s, but that the yearly amount of precipitation is increasingly variable (i.e., wet years can be followed by dry years; California Department of Water Resources 2006). Present climate models do not have the precision to determine with any certainty what will be the case in Monterey County. If global climate change does adversely affect the county's water storage, the county's water supply from groundwater and surface water sources will be reduced. Additional development would result in a significant and unavoidable impact should that

~~occur. However, because it is not reasonably foreseeable given the limits of today's models any firm conclusion would be speculative.~~

Page 4.3-133, Mitigation Measure WR-2. The measure is revised as follows.

The County will revise the draft 2007 General Plan to include the following additional new policies.

PS 3.17 The County will pursue expansion of the SVWP by investigating expansion initiating investigations of the capacity for the Salinas River water storage and distribution system. ~~to be further expanded.~~ This shall also include, but not be limited to 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, the date that extractions from the Salinas Valley groundwater basin are predicted to reach the levels estimated for 2030 in the EIR for the Salinas Valley Water Project. The County shall review this extraction data trends at five year intervals. The County shall also assess the degree to which the Salinas Valley Groundwater Basin (Zone 2C) has responded with respect to water supply and the reversal of seawater intrusion based upon the modeling protocol utilized in the Salinas Valley Water Project EIR. If the examination indicates that the growth in extractions predicted for 2030 are likely to be attained within ten years of the date of the review, or the groundwater basin has not responded with respect to water supply and reversal of seawater intrusion as predicted by the model, then the County shall implement PS-3.18.~~

PS-3.18 As required by PS-3.17, the County will convene and coordinate a working group made up of the Salinas Valley cities, the MCWRA, and other affected entities. The for the purpose of the working group will be to 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 not be 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 online by 2030, within five years and to have the projects on-line five years following identification of water supply alternatives.

Page 4.3-134, first sentence under "Significance Conclusion." Revise the sentence as follows.

A second phase of the Salinas Valley Water Project is feasible, according to MCWRA. (Weeks, 2009)

Page 4.3-142, under "Impacts of Water Facilities for the AWCP and Agriculture." Revise the first three paragraphs as follows.

New water supply facilities would be needed to support the artisan and full-scale wineries, ~~to support other permitted uses, such as inns and delicatessens, and to support agriculture. These would typically be onsite wells and treatment facilities.~~

A portion of the water demand from these wineries ~~and other permitted uses~~ would be met by existing water supply. The size and type of new facilities would depend on the

size and location of the specific winery or other permitted use and the availability of existing water supplies. Where agriculture expands into new areas, new infrastructure would also be required to provide water supply.

Typically, water supply facilities for new wineries, other permitted uses or expanded agricultural activity would consist of wells, wellhead facilities, pipelines, and storage reservoirs/tanks.

Page 4.3-143, under “Salinas Valley”. Insert after the first paragraph the following.

As stated above, new treatment, storage, and conveyance facilities and services would serve the Rural Centers (please see Section 3.4.9, *Rural Centers* and Exhibits 3.3 and 3.19 through 3.24 for the location of Rural Centers). While mitigation can likely address most of the significant impacts identified for these facilities, it is possible that some significant impacts may not be feasibly mitigated to a less-than-significant level, and unavoidable impacts may occur.

Page 4.3-147, first full paragraph. Revise the paragraph as follows.

Once groundwater resources have been adversely affected (i.e., lowering of groundwater levels and intrusion of seawater), recovery is more difficult. Significant groundwater declines already have occurred in many areas of the county, resulting in seawater intrusion into coastal aquifers—including both of the productive 180- and 400-foot aquifers. ~~Some groundwater level declines have occurred in the Deep Zone, and serious~~ groundwater declines have occurred in the coastal zone of the North County area.

Page 4.3-148, second to last paragraph. Revise the first sentence as follows.

The SVWP will balance supply with substantially reduce summer demand for on groundwater resources in the Salinas Valley.

Page 4.3-152, under South County Area Plan. The paragraph is revised as follows.

South County Area Plan SC-5.1 states that new development shall not diminish the groundwater recharge capabilities in the South County Planning Area where valuable natural groundwater recharge areas, or artificial groundwater recharge projects have been identified, and SC-5.3 states that new development may not encroach on the main channels and associated floodways of the Nacimiento, San Antonio, and Salinas Rivers in order to conserve groundwater recharge, preserve riparian habitats, and protect flood flow capacity each require new development to maximize groundwater recharge capabilities.

Page 4.3-154. Revise the first paragraph as follows.

2001). Implementation of the AWCP would depend on individual groundwater wells for its water; however, it would not substantially change the assumptions supporting the conclusions of the SVWP EIR/EIS. AWCP projects would be subject to regulation under 2007 General Plan Policies PS-3.1 (requiring proof of a long-term water supply), PS-3.4 (criteria for new wells), PS-3.5 (testing of new high-capacity wells), and PS-3.12 (conservation ordinance for agricultural use), among others. This would avoid groundwater overdraft as a result of new wineries and related facilities in the Salinas Valley during the planning period to 2030.

For the Granite Ridge/HIGHLANDS South area, impacts to overdraft would be less than significant because the SVWP addresses overall basin overdraft and revised Policy PS-3.4 will address localized individual well effects on water quality, well interference, and localized overdraft. The Granite Ridge supply project will also assist to help address local issues. For the El Toro Creek sub-basin the impacts to overdraft will be less than significant because Policy T-1.7 will constrain residential subdivision in residentially designated areas within the El Toro Creek subbasin and Policy PS-3.4 will address localized individual well effects on water quality, well interference, and localized overdraft.

Page 4.3-154. Revise the second and third full paragraph as follows.

Separately, the activities of Cal-Am and the MPWMDA on the Monterey Peninsula, and the SVWP and the Pajaro River IRWMP's projects in the Salinas River and Pajaro River basins would are intended to increase the supply available for domestic use, increase the supply of water available for summer recharge, and reduce demand for groundwater during those periods.

Until that occurs, Policies PS-3.1 and PS-3.3 will delay discretionary development until long-term sustainable water supplies are available, Policy 3.4 will control extractions from the Carmel Valley aquifer, and small water user demands from the Seaside aquifer have been determined to be less than significant in the seaside aquifer adjudication. With implementation of General Plan policies, new water demands from development allowed by the 2007 General Plan on the Monterey Peninsula would have a less-than-significant impact on groundwater overdraft. Mitigation Measure WR-1 is proposed to ultimately facilitate the development of long-term sustainable water supplies for future growth on the Monterey Peninsula, but it is the General Plan policies that avoid the significant impact.

With implementation of mitigation measure MM WR-1, the Monterey Peninsula would maintain this impact at a less than significant level.

However, areas in North County, that are in the Pajaro Valley watershed, would not avoid significant and unavoidable groundwater impacts. Policies PS-3.1 and 3.3 would act to limit development within the Pajaro Community Area until a sustainable water supply can be assured. However, they would not apply to the many existing lots of record in the North County in the Pajaro basin those areas. As described above, no comprehensive solution to provide adequate water to avoid overdraft has been established in the Monterey County portion of the North County in the Pajaro Valley.

Page 4.3-162, first and second paragraph under Significance Determination. Revise the paragraph as follows.

New and existing nondiscretionary land use and development entitlements would result in increased seawater intrusion associated with agricultural well development, low-density development, and urban development within the Pajaro basin and North County.

Policy PS 3.1 and Policy 3.3 will limit discretionary development throughout the County until long-term sustainable water supplies are available, meaning that new discretionary development will not be able to proceed if they will occur in an area without adequate planning to halt further seawater intrusion.

This impact would be less than significant in the Salinas Valley groundwater basin (including the Granite Ridge/Highlands South area) due to the ameliorating effect of the SVWP relative to the current baseline of seawater intrusion and due to General Plan policies previously noted.

Limited small scale development potential in the Seaside basin (due to current restrictions on new water connections and as a result of the adjudication of the basin) would avoid this a significant impact on seawater intrusion in the short run, and new desalination projects in the planning stages by Cal Am and the would halt any potential intrusion during the 2030 planning horizon, avoiding this impact. However, other areas face challenges in halting seawater intrusion. Seawater intrusion will be controlled in the Salinas Valley through the SVWP to 2030. Large-scale development will be limited due to the terms of the adjudication until additional water supplies are made available for future development in the Seaside aquifer. Policies PS 3-1 and PS-3-3 will delay discretionary development until long-term sustainable water supplies are available. Thus, impacts related to seawater intrusion in the Seaside aquifer will be less than significant.

Seawater intrusion is not an issue in the Carmel Valley alluvial aquifer and constraints to new water demand, per PS 3-1, 3-3, and 3-4 will address future demands such that impacts to seawater intrusion are considered less than significant. Seawater intrusion is also not an issue in the El Toro Creek sub-basin.

Mitigation Measure WR-1, in conjunction with the Coastal Water Project, would avoid a significant impact from seawater intrusion on the Monterey Peninsula.

Mitigation Measure WR-1 is proposed to ultimately facilitate the development of long-term sustainable water supplies for future growth on the Monterey Peninsula, but it is the General Plan policies that avoid the significant impact related to seawater intrusion.

New and existing nondiscretionary land use and development entitlements would result in increased seawater intrusion associated with agricultural well development, low-density development, and urban development within the Pajaro basin portion of the and North County.

A solution for the Pajaro basin is not available. Although several 2007 General Plan policies would assist in managing wells in areas where seawater has intruded into groundwater, a feasible comprehensive solution to the Pajaro Valley seawater intrusion has not been advanced at this time.

Page 4.3-180, under “Mitigation Measures.” The paragraph is revised as follows.

Implementation of the 2007 General Plan policies and Area Plan goals and policies would reduce potential impacts on water quality associated with increased erosion from alterations to drainage patterns to a less-than-significant level. In addition, Mitigation Measure BIO-2.1: Stream Setback Ordinance will require the County to develop and adopt a county wide Stream Setback Ordinance to establish minimum standards for the avoidance and setbacks for new development relative to streams. This will reduce the potential for erosion along streams that might otherwise occur as a result of new development. No additional mitigation is required.

Section 4.3 Exhibits. New Exhibit 4.3-7a was added to illustrate the County's major water basins. Exhibit 4.3-8 was updated to correct its title. Exhibit 4.3-9 was amended to illustrate recent seawater intrusion maps. Exhibit 4.3-9a was added to illustrate the 400-foot aquifer seawater intrusion level. Exhibit 4.3-10 was amended to correct its title. These exhibits are at the end of this chapter.

Section 4.6, “Transportation”

Page 4.6-3, under Section 4.6.2.3 Tourism Traffic. Revise the second paragraph as follows:

Tourism is the county's second largest industry, and the continued expansion of the tourism industry in Monterey County will further exacerbate this source of impact. Present alternatives to the automobile are not attractive to casual weekend travelers or to long-distance tourists. Although visitors comprise a high percentage of commercial airline passengers arriving at Monterey Peninsula Airport (62 percent, according to a 1996 AMBAG study), the relatively low number of airline trips in and out of the Peninsula accounts for only a very small percentage of the annual tourist volume. Monterey Salinas Transit's popular ~~Waterfront Area Visitor Express (WAVE)~~ ~~MST~~ ~~Trolley~~ service is an example of a non-impact transportation mode specifically tailored to tourist demand. ~~Line 22 is another bus route that is tailored to tourist demand as it serves the Big Sur coastline with a limited number of daily roundtrips year round. MST's Line 24 Carmel Valley Grapevine Express also is attractive with visitors and provides an alternative to driving between wine tasting venues while reducing congestion on Carmel Valley Road. However, t~~ The increasing demand for access to Monterey County's relatively inaccessible areas such as the Big Sur coastline, along with the over-capacity conditions already in place as a result of resident and commuter traffic, ~~may~~ warrants additional measures to facilitate other modes of tourist-oriented transportation.

Page 4.6-6, Under section 4.6.2.7 Road and Highway Capacities. Revise the last sentence of the second paragraph as follows:

The County's current standard for road performance is ~~LOS C under the undefined in the 1982 General Plan and is proposed to be LOS D under established by Policy C-1.1 in the 2007 General Plan.”~~

Page 4.6-9, first full paragraph. Delete the last sentence of the paragraph as follows:

In addition, the Area Plan for Carmel Valley specifies an acceptable LOS of “C” or “D” for Carmel Valley Road depending on the roadway segment (see Impact TRAN-2B for identification of segments and associated LOS standards), as opposed to a LOS “C” that is proposed to be the acceptable level for other Carmel Valley roadways and LOS D in the remainder of the unincorporated County. ~~Integration of this analysis into the 2007 General Plan EIR allows for consistency between documents.~~

Page 4.6-10, last paragraph. Revise the last sentence as follows:

These external networks were selected because they ~~either~~ represent the extents of the AMBAG model network for which future traffic volumes can be projected.

Page 4.6-11. The first three paragraphs under 4.6.2.8, Public Transit Services are revised as follows.

The Monterey Salinas Transit (MST) system is an inter-city and intra-city bus service. MST serves a ~~275~~ 280 square-mile area of ~~Northern~~ Monterey County, ~~and~~ Southern Santa Cruz County, ~~and~~ Santa Clara County. ~~providing~~ Intercity bus service is provided between Monterey-Salinas, ~~Marina and Watsonville-Salinas, and Watsonville-Marina, Monterey-San Jose, and Salinas-King City, and south from Salinas as far as King City.~~ ~~Inter~~ Intra-city service is provided in Carmel, Gonzales, Greenfield, King City, ~~Marina, Monterey, Pacific Grove, Salinas, Seaside, and Soledad, Gonzales, Marina, Monterey, Pacific Grove, Salinas, and Seaside.~~ MST offers 37 routes that serve an estimated 352,000 people residing within three-quarters of a mile from ~~established routes~~ a fixed-route bus line. ~~These~~ Three MST ~~lines~~ bus routes connect with Santa Cruz Metropolitan Transit District routes ~~originating~~ at the Watsonville Transit Center. One MST route offers daily express service to cities in southern Santa Clara County as well as downtown San Jose and provides connections to Santa Clara Valley Transportation Authority (VTA) bus and light rail transit lines. This express route serves the Diridon Station in San Jose with direct connections to AMTRAK, Altamont Commuter Express (ACE), as well as CALTRAIN commuter rail service. MST's rural service is provided to Carmel Valley and to Big Sur as well as to unincorporated areas of the county such as Castroville, Prunedale, and Chualar. The MST Trolley offers locals and tourists service to popular tourist destinations within the city of Monterey.

~~MST's rural service is provided to Carmel Valley and seasonally to Big Sur. The Waterfront Area Visitor Express (WAVE) offers locals and tourists service to popular tourist destinations within the City of Monterey.~~

~~Monterey County's paratransit program, MST RIDES, Monterey County's paratransit program, provides transportation service for individuals who have a disability who are unable to use MST's regular fixed route transit services. disability that prevents them from using MST's regular fixed route transit services.~~ The MST RIDES program also provides the RIDES Special Transportation (RIDES ST) service for persons living outside of the ADA-required service corridor (up to $\frac{3}{4}$ -mile from any MST fixed route bus line). MST RIDES serves 14 municipalities in two counties and 10 additional communities in the unincorporated areas of Monterey County. Service coverage spans the Monterey Peninsula, ~~Carmel, Carmel Valley, Salinas Valley, Chualar, Gonzales, Greenfield, Soledad, King City, and the Watsonville Transit Center in Santa Cruz County.~~ As of ~~February 2006~~ October 2008, there are ~~2,145~~ 3,171 people certified as ADA Paratransit eligible within the service area. About one half of that population resides either in Monterey or Salinas. ~~or Monterey, approximately 38 percent in Salinas, and 13 percent in Monterey.~~

Page 4.6-17, under 4.6.2.11 Water Transportation. Modify the second paragraph as follows:

Nearly 25 per cent of the vessels in the Monterey Harbor have commercial uses. Moss Landing Harbor provides 620 berths. ~~In Monterey Harbor, the~~ The demand for berths exceeds the supply, and waiting periods for berths vary based on the size of the vessel. The estimated waiting periods for small vessels range from ~~three (3) years~~ to five (5) years; mid-size vessels, eight (8) to ten (10) years; and up to 15 years for large vessels. Most slip sizes are readily available with little or no waiting at Moss Landing Harbor.

Page 4.6-17, under Table 4.6-10. Modify the footnote as follows:

[1] ~~The AMBAG 2000 network represents the year 2000 baseline network for which the model was validated. To reflect 2008 conditions, the 2000 network was modified to reflect completed projects on County roads. The AMBAG 2004 forecast was used to estimate the total amount of growth by 2030, but the location of the growth was determined by using the 2007 General Plan to assign development to the different TAZs.~~

Page 4.6-33, under Significance Conclusion. Revise the paragraph as follows:

Implementation of the 2007 General Plan consistent with policies related to project-specific localized impacts (Policy C-1.4 ~~requires circulation improvements that mitigate Tier 1 direct on-site and off-site project impacts concurrently with new development, new development is required to mitigate project specific local impacts to maintain the County's LOS standard and to provide adequate access and circulation facilities. Policy C-1.3 restricts new development or requires the phasing of new development so that it is concurrent with transportation improvements~~) would have a less than significant impact and no mitigation is required.

Page 4.6-42, under Carmel Valley Master Plan. Revise the paragraph as follows:

The Carmel Valley Master Plan Policies 37.4.2 (CV), 38.1.4.1 (CV), 39.2.2.1 (CV) through 39.2.2.5 (CV), 2.1, 2.3 through 2.6, and 2.13 through 2.15 encourage alternate modes of transportation including transit, bicycle, and pedestrian access to provide viable alternatives to driving and to reduce traffic impacts. They also consider improvements to Carmel Valley Road which would mitigate existing deficiencies and future LOS impacts. Policy 39.3.1.5 (CV) 2.12 provides recommendations for road improvements to Highway 1, Laureles Grade, and Carmel Valley Road to achieve LOS standards C or D as specified in the plan. Policy 39.3.2.1 (CV) 2.19 requires evaluation and monitoring of streets and highways to identify when to implement improvements to meet LOS standards.

Page 4.6-44, third paragraph. Revise the paragraph as follows:

~~Despite development contributions to local impacts (through project level mitigation), county impacts (through countywide traffic impact fee) regional impacts (through regional traffic impact fee) Even with implementation of project-specific mitigation measures, implementation of improvements funded through payment of a countywide impact fee, and implementation of improvements funded through the TAMC regional impact fee, there will remain a funding shortfall for the implementation of the financially constrained capital facilities in the Regional Transportation Plan. Implementation of the mitigation listed above in conjunction with the 2007 General Plan policies, and working collaboratively with cities and regional agencies would contribute to the mitigation of roadway LOS impacts. However, even with the adoption of county and regional impact fees, which fund a limited number of transportation facilities, traffic impacts to County and regional roadways will remain significant and unavoidable.~~

Page 4.6-45, under Significance Conclusion. Revise the paragraph as follows:

Implementation of the 2007 General Plan would have a significant and unavoidable impact on County roads, and Regional roads both within and external to Monterey County. The County has developed a list of capital improvements to be included in a countywide traffic impact fee, as described above. In addition, TAMC has adopted a list

of capital improvements to be funded by their adopted Regional Traffic Impact Fee. Implementation of Neither the planned County nor and TAMC projects transportation improvements will not fully mitigate the impacts of the 2007 General Plan. Implementation of these improvements, however, but provide significantly improvement to County and Regional roadways segments beyond existing conditions and Existing plus Project Development to the Year 2030 conditions. Therefore, the impacts remain significant and unavoidable.

Page 4.6-53, under Impact of Development with Policies. Revise the first two sentences of the second paragraph as follows:

Bicycling and walking, and transit are less attractive alternatives to the automobile for shorter local trips. Transit is attractive for longer trips when it competes in cost and convenience with the automobile, and for households that choose to own fewer or no automobiles. Further, lower density higher density compact and mixed-use communities have been demonstrated to encourage more trips by walking, bicycling and transit. spread over a larger area is effective to serve by transit than higher density, mixed-use communities.

Page 4.6-56, under Significance Determination. Revise the second paragraph as follows:

The land uses allowed under the General Plan, if consistent with policy, would increase the need for transit service with concentrations of development in existing transit-served corridors, community areas, and near incorporated cities. ~~The transit supportive~~ The increase in demand for transit service is consistent with MST's strategic goals of increasing transit ridership, expanding service, and introducing new services such as BRT in major corridors (Peninsula Area Service Study, 2006 and Business Plan and Short Range Transit Plan, FY 2008 through 2008). Therefore, this impact is less than significant.

Page 4.6-62, last paragraph. Revise as follows:

The General Plan daily analysis in Table ~~4.6-17~~^{4.6-16} shows three roads exceeding the CVMP LOS standard of "C", County Road G20 (Laureles Grade), Carmel Ranch Boulevard, and Rio Road. The General Plan analysis indicates that these roads are significantly impacted.

Page 4.6-63. Insert the following heading before the last paragraph.

Impact of Development on Regional Roads

Page 4.6-66. Insert the following heading before the last paragraph.

Impact of Development on Facilities External to Monterey County

Page 4.6-71, Mitigation Measure TRAN-2B, under Policy CV-2.18, subdivision a). Revise item 12 as follows:

12. Rio Road between its eastern terminus at Val Verde Drive and SR 1

Page 4.6-116, Mitigation Measure TRAN-5A. Revise this measure as follows.

TRAN-5A: 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:

1. A proposed development's project-specific assessment identifies a direct impact to the facility in terms of either LOS or safety.
2. A proposed development gains access from an intersection within the segment.
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.

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:

1. Providing left turn lanes at intersections without left turn lanes and where the frequency of turning vehicles affects through vehicle movement; and/or
2. Increasing the width of the roadway shoulder at intersections to allow vehicles to pass turning vehicles; and/or
3. Constructing passing lanes as determined in the Capital Improvement and Financing Plan.

Until such time as the County Traffic Impact Fee Program and CIFP for the AWCP are adopted, all new development in the AWCP will be required to prepare a Traffic Impact Analysis (TIA) regardless of the level of CEQA analysis conducted for the Project. Project-specific (Tier 1) mitigation measures identified in the TIA will be required to be implemented concurrently. If a TIA identifies a Traffic Tier impact, the development will be required to make a "fair share" payment for that impact. For discretionary permits and approvals, Policies C-1.3 and C-1.4 shall apply. In addition, all projects are subject to payment of the TAMC Regional Development Impact Fee.

Section 4.6 Exhibits. Exhibit 4.6-11 was revised to show the correct extent of the designated wine corridors.

Section 4.7, “Air Quality”

Page 4.7-2, under Ozone. The second and third paragraphs are revised as follows.

Ozone is a photochemical pollutant and needs volatile organic compounds (VOCs), NO_x, and sunlight to form. Therefore, VOCs and NO_x are ozone precursors. The primary sources of VOC within the planning area are on- and off-road motor vehicles, cleaning and surface coatings, solvent evaporation, landfills, petroleum production and marketing, and prescribed burning. The primary sources of NO_x are on- and off-road motor vehicles, stationary source fuel combustion, and industrial processes (MBUAPCD 2008).

According to the MBUAPCD Air Quality Management Plan, rough estimates of current NCCAB VOC emissions are approximately 70 in the range of 100 to 125 tons per day (MBUAPCD 2008). The majority of these are thought to be produced in Monterey County's oak woodlands and coastal chaparral environments. Rough estimates of NO_x are in the range of 1 to 5 is 81 tons per day, and are the highest during wildfire events. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with abundant sunlight. They are emitted from various sources throughout the Basin, and to reduce ozone concentrations, their emission needs to be controlled. However, high ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their places of origin. Although ozone in the stratosphere protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone in the troposphere can adversely affect the human respiratory system and other tissues. Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems such as forests and foothill plant communities, as well as agricultural crops and human-made materials such as rubber, paint, and plastics. Societal costs from ozone damage include increased healthcare costs, the loss of human and animal life, accelerated replacement of industrial equipment, and reduced crop yields.

In 1997, the Environmental Protection Agency (EPA) adopted the 0.08 ppm 8-hour standard, and on On April June 15, 2004, the Environmental Protection Agency (EPA designated the NCCAB as an attainment area for the 8-hour standard. The 1979 one-hour standard was then revoked one year later on June 15, 2005. On March 12, 2008, the EPA adopted a more stringent 8-hour standard of 0.075 ppm. formally replaced the 1979 federal 1 hour ozone standard with a more stringent 8 hour standard (0.08 ppm, not to be exceeded) as part of the Clean Air Rules of 2004. To remain consistent with the stricter federal standards, the California Air Resources Board (CARB) approved a new 8-hour ozone standard (0.070 ppm, not to be exceeded) for ozone on April 28, 2005. Additionally, CARB retained the current 1-hour-average standard for ozone (0.09 ppm) and its current ultraviolet (uv) photometry monitoring method.

Page 4.7-3, under Carbon Monoxide. The paragraph is revised as follows.

Carbon Monoxide is an odorless, colorless, toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons and other carbon-based fuels. In urban areas, automobile exhaust can cause as much as 95% of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of blood and cause headaches, dizziness, unconsciousness, and death. State and federal standards for CO were not exceeded in the North Central Coast Air Basin between 2000 2005 and 20052007, which is the most recent three years of data. In addition, ambient CO readings in the NCCAB are low and have a history of being well within applicable standards.

Page 4.7-4, under Particulate Matter. The first paragraph is revised as follows:

Particulate matter pollution consists of very small liquid and solid particles floating in the air. Particulate matter is a mixture of materials that can include smoke, soot, dust, salt, acids, and metalsfugitive dust from unpaved roads, agricultural tilling, agricultural wind-blown fugitive dust, prescribed fires and construction dust. Particulate matter also forms when gases emitted from motor vehicles and industrial sources undergo chemical reactions in the atmosphere. Natural sources of particulates include sea spray, forest fires, volcanic debris, etc. Human-made sources include fuel combustion and industrial

processes, industrial and nonindustrial fugitive sources and transportation. PM₁₀ particles are less than or equal to 10 microns in aerodynamic diameter. PM_{2.5} particles are less than or equal to 2.5 microns in aerodynamic diameter and are a subset, or portion of PM₁₀.

Page 4.7-4, under Reactive Organic Gases and Volatile Organic Compounds. The first paragraph is revised as follows. The paragraphs discussing wine making, beginning with “In very brief terms...” are deleted and moved to the impact discussion on Page 4.7-16.

Hydrocarbons are organic gases that are made up of hydrogen and carbon atoms. There are several subsets of organic gases including ROGs and VOCs. ROGs are defined by state rules and regulations; VOCs are defined by federal rules and regulations. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels, or as a product of chemical processes. ~~The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation)~~ Within the NCCAB, major sources of VOCs include exhaust emissions from on-road motor vehicles, solvent evaporation, and exhaust emissions from off-road mobile sources. Wineries also contribute hydrocarbons through their fermentation activities, although winery VOC emissions represent less than 1% of the NCCAB VOC inventory.

Page 4.7-5, end of sixth paragraph.

Although we tend to think of winemaking as taking place in one spot—the winery—its steps may actually take place in different facilities. Grapes may be crushed in one facility and the juice sold to wineries. Fermented wine may be exported for blending and aging elsewhere. Wineries may also transport fermented, aged wines to off-site bottling plants.

Page 4.7-7, under Attainment Status. Insert the following table after the second paragraph.

Table 4.7-1a. Attainment Status for the North Central Coast Air Basin – January 2009

Pollutant	State Standards	National Standards
Ozone (O ₃)	Nonattainment ¹	Attainment ²
Inhalable Particulates (PM ₁₀)	Nonattainment	Attainment
Fine Particulates (PM _{2.5})	Attainment	Unclassified/Attainment ³
Carbon Monoxide (CO)	Monterey Co. – Attainment San Benito Co. – Unclassified Santa Cruz Co. – Unclassified	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead	Attainment	Unclassified/Attainment ⁴

Source: Monterey Bay Unified APCD 2009a.

Note: Nonattainment pollutants are highlighted in **Bold**.

¹ Effective July 26, 2007, the ARB designated the NCCAB a nonattainment area for the State ozone standard, which was revised in 2006 to include an 8-hour standard of 0.070 ppm.

² On March 12, 2008, EPA adopted a new 8-hour ozone standard of 0.075 ppm, while temporarily retaining the existing 8-hour standard of 0.08 ppm. EPA is expected to issue new designations by March 2010.

³ In 2006, the Federal 24-hour standard for PM_{2.5} was revised from 65 to 35 µg/m³. Although final designations have yet to be made, it is expected that the NCCAB will remain designated unclassified/attainment.

⁴ On October 15, 2008 EPA substantially strengthened the national ambient air quality standard for lead by lowering the level of the primary standard from 1.5 µg/m³ to 0.15 µg/m³. Initial recommendations for designations are to be made by October 2009 with final designations by January 2012.

Page 4.7-8, under Air Quality Monitoring Data. Revise the first two paragraphs and insert the following table after the second paragraph.

The existing air quality conditions in the project study area can be characterized by monitoring data collected in the region. PM₁₀, CO, and ozone concentrations are the pollutants of greatest concentration within the MBUAPCD and, therefore, are the pollutants of most concern from the proposed project. MBUAPCD maintains the following monitoring stations in Monterey County: Carmel Valley, Salinas, and King City. It also maintains a monitoring station in nearby Watsonville in southern Santa Cruz County (MBUAPCD 2009b). Air quality monitoring data for the last three years is presented in Table 4.7-1b for the. The monitoring station in Monterey County is the Salinas #3 monitoring station, located at 855 E Laurel Drive in Salinas.

As shown in Table 4.7-1b, the Salinas #3 monitoring station has experienced no violations of the state 1- and 8-hour ozone standard and one violation of the state PM₁₀ standard during the three most recent years for which data are available. In addition, there have been no violations of the state or federal CO or PM_{2.5} standard for this time period. Given the proximity of the Salinas station to multiple regional pollutant sources due to mobile sources, agricultural sources, and industrial sources, it is considered representative of the most affected portion of the County. The Carmel Valley and King

City locations are representative of local conditions, but less representative of worst-case conditions than the Salinas station.

Table 4.7-1b2. Exceedances and Monitored Levels at the Salinas Air Quality Management Station 2006-2008. State and National 8-hour Ozone Standard. State 24-hour PM10 Standard and National PM2.5 Standard

State 8-hour Ozone Standard and 24-hour PM10 Standard									
2006		2007		2008		3 year Totals		Design Value	
O ₃	PM ₁₀	O ₃	PM ₁₀	O ₃	PM ₁₀	O ₃	PM ₁₀	O ₃	PM ₁₀
0	1	0	0	0	2	0	3	0.060 ppm	57.9 ug/m ³
National 8-hour Ozone Standard and 24-hour PM2.5 Standard									
2006		2007		2008		3 year Totals		Design Value	
O ₃	PM _{2.5}	O ₃	PM _{2.5}	O ₃	PM _{2.5}	O ₃	PM _{2.5}	O ₃	PM _{2.5}
0	0	0	0	0	0	0	0	0.055 ppm	14 ug/m ³

Sources: Monterey Bay Unified APCD 2009c; Monterey Bay Unified APCD 2009d.

¹⁾ The 2008 State 8-hour ozone standard is 0.070 ppm; the National 8-hour ozone standard, adopted by EPA in 2008, is 0.075 ppm.

²⁾ The State 24-hour PM₁₀ standard is 50 $\mu\text{g}/\text{m}^3$; the National 24-hour PM_{2.5} standard is 35 $\mu\text{g}/\text{m}^3$.

³⁾ Many of the 2008 exceedances of the National ozone standard were affected by smoke from the 2008 California Wildfire Siege, whereby over 1,000,000 acres of wildland vegetation burned statewide including over 250,000 acres in Monterey County alone.

Page 4.7-8. The second sentence of the fifth paragraph is revised as follows:

The FCAA established National Ambient Air Quality Standards (NAAQS) that set levels of criteria pollutants that are considered the maximum safe levels of breathable ambient (background) pollutant concentration, allowing an adequate margin of safety to protect human health.

Page 4.7-9, under California Air Resources Board. The first paragraph is revised as follows.

CARB, part of the California EPA, monitors compliance with the California Clean Air Act (CCA) and the 1989 amendments to the CCAA. Similar to the federal legislation, the CCAA sets forth ambient air quality standards and legal mandates to achieve these standards by the earliest practicable date. These standards apply to the same criteria pollutants as the FCAA, and include sulfate, visibility, hydrogen sulfide, and vinyl chloride. In addition, State law vests CARB with direct authority to regulate pollution from motor vehicles registered in California, as well as fuels and consumer products sold in the State.

Page 4.7-9, under Monterey Bay Unified Air Pollution Control District. The following description is inserted before the first paragraph.

As required by the California Clean Air Act and Amendments (FISC Section 40910 et seq.) and the Federal Clean Air Act and Amendments (42 U.S.C. Section 7401 et seq.).

the MBUAPCD is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, education and public information activities related to air pollution. California Health and Safety Code Sections 39002, et seq. and 40000, et seq. require local air districts to be the primary enforcement mechanism for controlling pollution from local business and industry. Air districts must have rules and regulations for the attainment and maintenance of federal and state ambient air standards.

Page 4.7-10. The first non-bulleted paragraph is revised as shown, as well as the fourth bullet in that list for mitigation measures for heavy-duty equipment. No changes are made to the other bullets.

The MBUAPCD sets forth the following mitigation measures for heavy duty diesel equipment:

- Undertake project during non-zone non-ozone season.

Page 4.7-11, under MBUAPCD Air Quality Management Plan. The first paragraph is revised as follows.

MBUAPCD is one of 35 air pollution management districts that have prepared an Air Quality Management Plan (AQMP). The MBUAPCD adopted the 2008 AQMP for the Monterey Bay region in June-August 2008. The 2008 AQMP relies on a multi-level partnership of federal, state, regional, and local agencies, and proposes policies and measures to achieve federal and state air quality standards for improved air quality in its jurisdictional area.

Table 4.7-2 is revised as follows.

Table 4.7-2. MBUAPCD Air Quality Management Plan VOC Emissions from Wine Fermenting and Ageing

	2008(tons/day)	2008 (lbs/day)	2030(tons/day)	2030(lbs/day)
Wine Fermentation	0.1608	322	0.2877	575
Wine Ageing	0.3648	730	16510.8257	1651
Total	0.5256	1,051	1.1134	2,227

Source: Monterey Bay Unified Air Pollution Control District. 2008b.

The following informational paragraphs are inserted after Table 4.7-2 on page 4.7-12.

SB 656 Particulate Matter Plan

This plan, developed in December 2005, outlines measures to make progress toward achieving the State particulate matter standards by reducing fugitive dust, especially along the agriculture/urban interface, as well as emissions of particulate matter from diesel exhaust through education about Best Management Practices and grant incentives.

2007 Federal Maintenance Plan

This plan describes how the federal ozone standard will be maintained in the area.

Page 4.7-12, under Rules 201. The second bullet is revised as shown here.

- New or reconstructed wineries, as defined in District Rule 207 (Review of New or Modified Sources, wineries with an annual production rate of less than 150,000 gallons (570 kiloliters)).

Page 4.7-12, under Rules 201. The last paragraph is clarified as shown here.

In addition, If the a winery does not fit into Rule 201, it is may be subject to the MBUAPCD's Rule 417-Storage of Organic Liquids if vapor pressure and tank size met the criteria of Rule 417. Rule 417 lists the requirements and standards for the storage of organic liquids, seals, record keeping, and vapor controls.

Page 4.7-12, under 4.7.4.1. The last paragraph (beginning with “Construction-Related Emissions...”) is clarified as follows.

Construction-Related Emissions (pounds per day) for non-typical construction equipment. Temporary emissions of ozone precursor emissions from typical construction equipment (i.e., scrappers, tractors, dozers, graders, loaders and rollers) have been accommodated in State- and federally-required air plans (MBUAPCD 2008).

Page 4.7-15, under Significance Determination. The first paragraph is clarified as shown here.

Population growth under the 2007 General Plan is consistent with the growth projected in the MBUAPCD 2008 AQMP Clean Air Plan. Table 4.7-3 shows the housing, population, employment, and VMT data for 2000, 2030, and 2092 buildout conditions under the 2007 General Plan.

Table 4.7-3. Projected population and Daily VMT growth in Monterey County

Scenario	Housing Units	Population	Employment	Daily VMT
2000	129,571	-	222,471	8,162,834
2000 With <u>Project Buildout</u>	168,904	509,692	304,388	9,846,752
<u>2008A</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>8,291,307</u>
<u>2008B</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>8,674,387</u>
2030 With Project	143,009	437,665	253,060	8,532,513
2030 Cumulative	187,022	602,790	335,362	14,290,852
Cumulative 2092 Buildout	290,631	937,373	520,531	18,822,215

Source: Kimley-Horn (2008) for 2000, 2000 with Buildout, 2030 with Project, 2030 Cumulative, and cumulative 2092 Buildout. 2008A (2000 + unincorporated growth to 2008), 2008B (all county) calculated as described in Master Response 2 using California Department of Finance Data. 2030 with Buildout scenario in Tables 4.7-5 and 4.7-6 uses same assumptions as 2000 with Buildout, but used 2030 emission rates.

Page 4.7-16, under Significance Determination. Beginning with the second paragraph (starting with “New wineries would result...”), the following text is inserted and revised.

New wineries would result in increased VOC emission from wine fermenting and ageing.

In very brief terms, the wine making process involves several steps including fermentation. Fermentation is the chemical process by which the natural sugars in the wine grapes are converted to alcohol through the action of yeast (either from the grape skins, or more commonly, cultured yeasts) introduced into the fermentation tank. Grapes are brought to the winery where they are passed through a destemmer-crusher that separates the grapes from their stems and breaks them open to release their juice. For white wine production, the resultant crushed grapes are then transferred to a press that separates the juice from the skins. The juice will then be transferred to fermentation tanks. For red wine, the crushed grapes (juice and skins, or “must”) are sent directly to the fermentation tanks.

Fermentation occurs under temperature-controlled conditions in either stainless steel or wooden tanks. Temperature is important to the development of flavor and character. In general, white wine is fermented at a lower temperature than red wine. Red wines are generally allowed to ferment for up to 14 days. During fermentation, the nascent red wine will be circulated from time to time to prevent the skins from simply floating on top. White wine will be allowed to ferment for a week to two months.

During fermentation, the grape juice is converted to ethyl alcohol and carbon dioxide. This process also releases a number of organic compounds, including (but not limited to) volatile compounds such as aldehydes, hydrogen sulfide, and mercaptans, that will affect the flavor and aroma of the wine.

After the primary fermentation process is done, the wine may, depending on the variety of grapes, the results of the primary fermentation, and the objectives of the winemaker, be put through secondary or “malolactic” fermentation. In malolactic fermentation, bacteria are released into the wine to soften its character (removing bitterness or tartness).

At the end of the fermentation process, the resultant wine is removed from the tanks. Solids are removed from the liquid by a variety of processes. Then, the wine is transferred to barrels or other containers for aging. (Encarta 2008)

Although we tend to think of winemaking as taking place in one spot—the winery—its steps may actually take place in different facilities. Grapes may be crushed in one facility and the juice sold to wineries. Fermented wine may be exported for blending and aging elsewhere. Wineries may also transport fermented, aged wines to off-site bottling plants.

Winemaking is a complex chemical process that is as much an art as a science. Winemakers must balance innumerable natural and process-related factors to result in a wine that meets their expectations for color, aroma, and taste.

Ethanol and carbon dioxide are the primary compounds emitted during the fermentation step in the production of wines and brandy. Acetaldehyde, methyl alcohol (methanol), n-propyl alcohol, n-butyl alcohol, sec-butyl alcohol, isobutyl alcohol, isoamyl alcohol, and hydrogen sulfide also are emitted but in much smaller quantities compared to ethanol emissions. In addition, a large number of other compounds are formed during the fermentation and aging process. Selected examples of other types of compounds formed and potentially emitted during the fermentation process include a variety of acetates,

monoterpenes, higher alcohols, higher acids, aldehydes and ketones, and organosulfides
(United States Environmental Protection Agency 1995).

During the fermentation step, large quantities of CO₂ are also formed and emitted.
Fugitive ethanol emissions also occur during the screening of the red wine, pressing of
the pomace cap, and later during aging in oak cooperage and the bottling process. In
addition, small amounts of liquefied SO₂ are often added to the grapes after harvest, to
the "must" prior to fermentation, or to the wine after the fermentation is completed, as a
preservative. As a result, small amounts of SO₂ emissions can occur during these steps.
There is little potential for VOC emissions before the fermentation step in wine
production. Except for harvesting the grapes and possibly unloading the grapes at the
winery, there is essentially no potential for particulate (PM) emissions from this industry
(United States Environmental Protection Agency 1995).

The health effects of hydrocarbons result from the formation of ozone and its related
health effects. High levels of hydrocarbons in the atmosphere can interfere with oxygen
intake by reducing the amount of available oxygen through displacement. Carcinogenic
forms of hydrocarbons are considered toxic air contaminants (air toxics). There are no
separate health standards for VOCs, although some are also toxic; an example is benzene,
which is both a VOC and a carcinogen.

Table 4.7-4 summarizes VOC emissions under 2030 project conditions. The estimate of gallons per year is based on per-winery production from 10 full-scale and 40 artisan wineries of varying sizes.

Table 4.7-4. VOC Emissions for 2030 Conditions of 10 Full-Scale and 40 Artisan Wineries

	Emission Factor (lbs/1000 gallons) ¹	Gallons per Year ² (in 1,000s)	VOC Emissions (lbs/ year)	VOC Emissions (lbs/ day)
Fermentation-Red	6.2 ¹	4,141.2	25,675.4	187.4
Fermentation-White	2.5 ¹	6,211.8	15,529.5	113.4
Pomace Screening-Red	0.5 ²	4,141.2	2,070.5	15.1
Pomace Press-Red	0.1 ²	4,141.2	414.12	3.0
Storage/Ageing-Red	0.02782 ³ <u>27.83⁴</u>	4,141.2	115,250	315.8
Storage/Ageing-White	0.02583 ³ <u>25.83⁴</u>	6,211.8	160,451	439.6
Total			318,390.5	905.31,074.2
MBUAPCD Threshold				137 pounds per day

¹ Source: California Air Resources Board 2005

²-² Source: United States Environmental Protection Agency 2001

²4³ 1 case = 2.38 gallons

³⁴ Source: SBCAPCD 2008

Page 4.7-19, under Agricultural Winery Corridor Plan. The paragraph is revised as follows.

~~The AWCP overlays the Toro, Central Salinas Valley, and South County Area Plans, and policies relating to air quality are applicable to the AWCP under this plan. Implementation of these policies would reduce air quality impacts.~~ There are no policies applicable to construction-related emissions in the AWCP area.

Page 4.7-20, under Significance Determination. The second paragraph and mitigation are clarified as shown here.

As described above in the Regulatory Setting section, the MBUAPCD has developed an extensive PM₁₀ mitigation program to control the generation of fugitive dust from ~~for~~ construction activities. ~~MBUAPCD CEQA guidelines state that regional impacts from ozone precursor emissions in equipment exhaust (NO_x and ROG) have been incorporated into the regional emissions budget. Even with implementation of these measures, This~~ this is a potentially significant impact because PM₁₀ emissions could violate air quality thresholds. In addition, the MBUAPCD CEQA guidelines state that temporary emissions of ozone precursor emissions from typical construction equipment (i.e., scrapers, tractors, dozers, graders, loaders and rollers) have been accommodated in State- and federally-required air plans (MBUAPCD 2008). However, projects with non-typical construction equipment may generate emissions not incorporated into the regional emissions budget. Although this is a potentially significant impact, the Mitigation ismitigation required to will reduce this impact to a level of less than significant.

Mitigation Measure AQ-1:

The County of Monterey will update General Plan policy OS-10.59 as follows:

OS-10.9 The County of Monterey shall require that future development implement applicable Monterey Bay Unified Air Pollution Control District control measures. Applicants for discretionary projects shall work with the Monterey Bay Unified Air Pollution Control District to incorporate feasible measures that assure that health-based standards for diesel particulate emissions are met. The County of Monterey will require that future construction operate and implement MBUAPCD PM₁₀ control measures to ensure that construction-related PM₁₀ emissions do not exceed the MBUAPCD's PM₁₀ threshold of 82 pounds per day. The County shall implement MBUAPCD measures to address off-road mobile source and heavy duty equipment emissions as conditions of approval for future development to ensure that construction-related NO_x emissions from non-typical construction equipment do not exceed the MBUAPCD's NO_x threshold of 137 pounds per day.

Mitigation Measure AQ-2:

Implement MBUAPCD Mitigation Measures for Off-Road Mobile Source and Heavy Duty Equipment Emissions.

General Plan Policy OS-10.69 will be revised as follows:

OS-10.9 The County of Monterey shall require that future development implement applicable Monterey Bay Unified Air Pollution Control District control measures. Applicants for discretionary projects shall work with the Monterey Bay Unified Air Pollution Control District to incorporate feasible measures that assure that health-based

standards for diesel particulate emissions are met. The County of Monterey will require that future construction operate and implement MBUAPCD PM₁₀ control measures to ensure that construction-related PM₁₀ emissions do not exceed the MBUAPCD's PM₁₀ threshold of 82 pounds per day. The County shall implement MBUAPCD measures to address off-road mobile source and heavy duty equipment emissions as conditions of approval for future development to ensure that construction-related NO_x emissions from non-typical construction equipment do not exceed the MBUAPCD's NO_x threshold of 137 pounds per day. The County shall implement MBUAPCD measures to address off-road mobile source and heavy duty equipment emissions as conditions of approval for future development.

Page 4.7-20, under Significance Conclusion. Revise the first paragraph as follows.

In summary, ~~buildout~~ 2030 development of the 2007 General Plan would result in new development, and increased emissions would result from construction activities. Mitigation Measures AQ-1 through AQ-3 and AQ-2 would reduce this impact to a less than significant level.

Page 4.7-21, under Significance Determination. Revise the first paragraph as follows.

Buildout of the 2007 General Plan includes increased development and roadway improvements. Construction emissions could potentially result in adverse impacts on air quality. The 2007 General Plan and Area Plan policies include measures to comply with MBUAPCD's standards and regulations regarding construction emissions. Mitigation Measures AQ-1 through AQ-3 and AQ-2 are required to reduce this impact to a level of less than significant.

Page 4.7-22, under “Impact of Development with Policies.” Revise the first two paragraphs as follows.

Mobile sources are sources of emissions associated with vehicle trips, and include employees, deliveries, and maintenance activities. The primary operational emissions associated with the proposed project are ozone precursors, CO, particulate matter (PM₁₀ and PM_{2.5}), and carbon dioxide (CO₂), emitted as vehicle exhaust. Emission of ozone precursors, CO, and particulate matter for existing year (2007) and future year (2030) project conditions were calculated using the EMFAC 2007 model and traffic data provided by the 2007 General Plan traffic engineers. ~~Appendix A describes the methodology and model inputs for existing year, future year, and buildout of the 2007 General Plan. (See the Technical Supporting Data at the end of the FEIR)~~ Emissions of CO₂ are analyzed in Section 4.16, Climate Change.

Table 4.7-5 summarizes emissions associated with each project condition. Table 4.7-6 summarizes the differences in emissions between project conditions. As Table 4.7-6 indicates, implementation of the 2007 General Plan ~~to 2030 compared to the 2008 conditions~~ would result in net decreases in ROG, NO_x, CO, and PM_{2.5} emissions, while PM₁₀ emissions would increase. Vehicular emission rates are anticipated to lessen in future years due to continuing improvements in engine technology and the phasing out of older, higher-emitting vehicles. These decreases in emission rates are sufficient to offset the increases in VMT between existing and 2030 project conditions. PM₁₀ emissions are shown to increase slightly with implementation of the proposed project to ~~2030~~ due to increased VMT outpacing the reductions in emission rates that would occur for future conditions relative to existing conditions. However, these increases are below the MBUAPCD threshold of 82 pounds per day.

Page 4.7-22. Table 4.7-5 is revised as follows.

Table 4.7-5. Criteria Pollutant Emissions from Mobile Sources (pounds per day)

Condition	<u>Basis</u>	<u>Daily VMT</u>	ROG	NO _X	CO	PM ₁₀	PM _{2.5}
2000	<u>2000 VMT at 2000 emission rates</u>	<u>8,162,834</u>	13,875	37,737	225,144	<u>1,656</u> <u>4,495</u>	1,296
2000 With <u>Buildout Project</u>	<u>Full Buildout at 2000 emission rates</u>	<u>9,846,752</u>	16,737	45,522	271,589	<u>1,997</u> <u>5,423</u>	1,563
<u>2008A</u>	<u>2008 VMT at 2008 emission rates (Uninc. County only)</u>	<u>8,291,307</u>	<u>6,763</u>	<u>26,194</u>	<u>114,207</u>	<u>3,981</u>	<u>1,005</u>
<u>2008B</u>	<u>2008 VMT at 2008 emission rates (All County)</u>	<u>8,674,387</u>	<u>7,076</u>	<u>27,404</u>	<u>119,483</u>	<u>4,165</u>	<u>1,052</u>
2030 With Project	<u>2030 with project VMT at 2030 emission rates</u>	<u>8,532,513</u>	1,223	4,872	26,053	<u>1,072</u> <u>4,041</u>	734
<u>2030 With Buildout</u>	<u>Full Buildout at 2030 emission rates</u>	<u>9,846,752</u>	<u>1,411</u>	<u>5,622</u>	<u>30,066</u>	<u>4,663</u>	<u>847</u>
2030 Cumulative	<u>2030 cumulative VMT at 2030 emission rates</u>	<u>14,290,852</u>	2,048	8,160	43,635	<u>1,796</u> <u>6,768</u>	1,229
2030-Cumulative Buildout	<u>Cumulative buildout VMT at 2030 emission rates</u>	<u>18,822,215</u>	2,697	10,747	57,471	<u>2,365</u> <u>8,913</u>	1,618

Page 4.7-23. Table 4.7-6 is revised as follows.

Table 4.7-6. Differences in Criteria Pollutant Emissions from Mobile Sources (pounds per day)

Project Condition	<u>Basis</u>	Yearly VMT	ROG	NO _X	CO	PM ₁₀	PM _{2.5}
<u>Existing</u>		<u>8,162,834</u>	<u>13,875</u>	<u>37,737</u>	<u>225,144</u>	<u>1,656</u>	<u>1,296</u>
2030 Project Increase (>2000)	<u>2030 With Project - 2000</u>	369,679	-12,652	-32,865	-199,091	<u>-583</u> <u>-455</u>	-562
<u>2030 Project Increase (>2008)</u>	<u>2030 With Project - 2008A</u>	<u>241,206</u>	<u>-5,540</u>	<u>-21,322</u>	<u>-88,154</u>	<u>59</u>	<u>-272</u>
<u>2030 Cumulative</u>		<u>14,290,852</u>	<u>2,048</u>	<u>8,160</u>	<u>43,635</u>	<u>1,796</u>	<u>1,229</u>
Buildout Project Increase (> 2000)	<u>2000 with Project - 2000</u>	1,683,918	2,862	7,785	46,445	<u>342</u> <u>927</u>	267
<u>Buildout Project Increase (>2008)</u>	2030 Buildout - 2008A	1,555,445	-5,352	-20,571	-84,141	682	-159
<u>2030 Cumulative Change</u>	<u>2030 Cumulative - 2008B</u>	<u>5,616,465</u>	<u>-5,028</u>	<u>-19,244</u>	<u>-75,848</u>	<u>2,602</u>	<u>177</u>
<u>Cumulative Buildout Cumulative Change</u>	<u>Cumulative Buildout - 2008B</u>	<u>18,822,215</u> <u>10,147,828</u>	<u>2,697</u> <u>-4,379</u>	<u>10,747</u> <u>-16,657</u>	<u>57,471</u> <u>-62,012</u>	<u>2,365</u> <u>4,748</u>	<u>1,618</u> <u>566</u>
<u>MBUAPCD Thresholds</u>			137	137	550	<u>N/A</u> <u>82</u>	N/A

Notes: See Table 4.7-5 for basis for different conditions.

Page 4.7-24. The following revisions are inserted in Table 4.7-7.

Table 4.7-7. VOC Emissions for Typical Single Full-Scale and Single Artisan Wineries)

	Emission Factor (lbs/1000 gallons) ¹	Gallons per Year ²⁴	VOC Emissions (lbs/year)	VOC Emissions (lbs/ day)
Single Artisan Winery				
Fermentation-Red	6.2 ¹	23,800	147.56	1.1
Fermentation-White	2.5 ¹	35,700	89.25	0.65
Storage/Ageing-Red	<u>0.0278327.83²</u>	23,800	662	1.81
Storage/Ageing-White	<u>0.0258325.83²</u>	35,700	922	2.53
Pomace Screening-Red	0.5 ³	23,800	11.9	0.09
Pomace Press-Red	0.1 ³	23,800	2.38	0.02
Total			1,835.09	6.2
Single Full-Scale Winery				
Fermentation-Red	6.2 ¹	1,428,000	8,853.6	64.6
Fermentation-White	2.5 ¹	2,142,000	5,355	39.1
Storage/Ageing-Red	<u>0.0278327.83²</u>	1,428,000	39,741	108.88
Storage/Ageing-White	<u>0.0258325.83²</u>	2,142,000	55,328	151.58
Pomace Screening-Red	0.5 ³	1,428,000	714	5.2
Pomace Press-Red	0.1 ³	1,428,000	142.8	1.04
Total			110,134.4	370.37
MBUAPCD Threshold				137 lbs/day

¹ Source: California Air Resources Board 2005

² Source: SBCAPCD 2008

³ Source: United States Environmental Protection Agency 2001

²⁴ case = 2.38 gallons

Page 4.7-26, under Agricultural Winery Corridor Plan. The paragraph is revised as follows.

~~The AWCP overlays the Toro, Central Salinas Valley, and South County Area Plans, and policies relating to air quality are applicable to the AWCP under this plan. Implementation of these policies would reduce air quality impacts. There are no policies applicable to air quality in the AWCP area.~~

Page 4.7-26, under Significance Determination. The first paragraph is revised as follows.

~~Implementation of the 2007 General Plan would result in increased emissions of criteria pollutants and VOCs. Implementation of the 2007 General Plan would result in increased mobile and area source emissions due to increased vehicle trips and VMT, and increased development.~~

Page 4.7-26. The final paragraph is revised as follows.

As indicated in Table 4.7-6, 2030 conditions (2030 With Project – 2008(A) 2000 conditions) would result in a net decrease in ROG, NO_x, CO, and PM_{2.5}, and PM₁₀ emissions. Vehicular emission rates are anticipated to lessen in future years due to continuing improvements in engine technology and the phasing out of older, higher-emitting vehicles. These decreases in emission rates are sufficient to offset the increases in VMT seen between 2000 and 2030 project conditions, resulting in the decreased ROG, NO_x, CO, and PM_{2.5}, and PM₁₀ emissions observed in Table 4.7-6. PM₁₀ emissions will increase, but would be less than the MBUAPCD daily threshold. Additionally, the 2007 General Plan and Area Plan goals and policies set forth comprehensive measures to avoid and minimize adverse impacts on air quality to the maximum extent practicable.

Page 4.7-29. The first full paragraph is revised as follows.

As seen from Table 4.7-7, the VOC emissions from winery operations that would occur under 2030 project conditions would exceed the District's threshold of 137 pounds per day. Consequently, VOC impacts from winery operations are considered significant and unavoidable.

Page 4.7-29. The fourth paragraph under "Impact of Development with Policies" is revised as follows.

Emission factors are not currently available for future year 2092, and as such a qualitative quantitative analysis is required for this condition was conducted using 2030 emissions factors. As indicated above in Table 4.7-6, buildout of the 2007 General Plan would result in net decreases in ROG, NO_x, CO, and PM_{2.5}, and PM₁₀ emissions compared to 2008 (A) conditions, but would result in increases in PM₁₀ emissions above the MBUAPCD threshold. Vehicular emission rates are anticipated to lessen in future years due to continuing improvements in engine technology and the phasing out of older, higher-emitting vehicles. These decreases in emission rates would likely offset the increases in VMT between existing and 2092 project conditions.

Page 4.7-33, under Mitigation Measure AQ-7. The bullet is revised as follows.

- Ensure development ~~Development~~ of new sensitive land uses (schools, hospitals, facilities for the elderly) ~~is~~ should not be located any closer than 500 feet of a freeway carrying more than 100,000 vehicles per day.

Section 4.9, “Biological Resources”

Page 4.9-4 Table 4.9-1 is replaced in its entirety as follows

Table 4.9-1. Monterey County Vegetation Communities (Estimated for 2006)
(Includes Cities and Coastal Areas)

Vegetation Community	Acres
Annual Grassland	711,714
Oak Woodland	416,786
Agriculture	262,199
Baccharis Scrub	204,258
Oak Savanna	201,194
Gabilan Scrub	115,040
Urban/Non-Veg	62,284
Sparse Vegetation/Bare Soil	32,789
Mixed Conifer	25,532
Riparian/Wetland	24,891
Redwood Forest	21,734
Maritime Chaparral	12,115
Coastal prairie	9,426
Blue Oak Woodland	5,606
Saltwater Marsh	5,304
Dune Scrub	2,812
Baccharis Chaparral	2,138
Monterey Pine Forest	2,010
Eucalyptus	1,158
Golf Course	580
Coastal Scrub	512
Valley Needlegrass Grassland	392
Dune	281
Freshwater Marsh	148
Coastal Terrace Prairie	97
Native Grassland	81
Total	2,121,082

Methodology: No existing mapping for current vegetation coverage for the County was identified. Vegetation community acreages for 2006 were identified by comparing a 1982 base vegetation map to the 2006 FMMP maps for County using GIS with the exception of Monterey pine forest (for which a current map of Monterey pine forest extent from 2004 was used (Monterey County 2004b). The FMMP coverage was used to identify urban land and important farmland (prime, statewide importance, unique). Where the FMMP maps show grazing land, land is not presumed to be urban or to be intensive agriculture, but is presumed to be original 1982 land cover. A minimum mapping unit of 2.5 acres was used for conversions. See Figure 4.9-1 for the resultant estimated 2006 land cover, and Figures 4.9-3 through 4.9-6 for habitat conversions between 1982 and 2006.

Page 4.9-5 Table 4.9-2 is revised as follows:

Table 4.9-2. Monterey County GP 2007 Natural Communities by New Plan Areas (Estimated Extant as of 2006)

	Annual Grassland	Baccharis and Other Scrub	Coastal Prairie	Baccharis and Maritime Chaparral	Mixed Conifer	Monterey Pine Forest/ Redwood Forest	Native Grassland	Oak Woodland and Savanna	Riparian/ Wetland	Total
Community Areas										
Chualar CA										0
Fort Ord CA	3,320	356		9,805	1		460	4,005	273	18,219
Boronda CA										0
Pajaro CA	0								1	1
Castroville CA	29									29
Community Areas Subtotal	3,349	356	0	9,805	1		460	4,005	273	18,249
Rural Centers										
Pine Canyon RC	427	110			2		28			567
San Lucas RC	15									15
Bradley RC	34								0	34
Lockwood RC	92	6								97
Pleyto RC	359	33								393
San Ardo RC										0
River Road RC	171	25			14		35	26		272
Rural Centers Subtotal	1,098	173	0	0	16		0	63	26	1,377
AHOs										
Carmel Mid-Valley AHO	1									1
Hwy 68/Airport AHO	1	1	<u>55</u>	<u>58</u>		<u>10</u>		<u>5</u>	<u>12</u>	<u>72</u>
Hwy 68/Reservation AHO	6			1						6
AHOs Subtotal	8	<u>1</u>	<u>55</u>	<u>58</u>	1	0	<u>10</u>	0	<u>5</u>	<u>12</u>
Total of Focused Growth Areas	4,455	<u>530</u>	<u>55</u>	<u>58</u>	9,806	18	<u>10</u>	460	<u>4,073</u>	299
		<u>529</u>							<u>4,080</u>	<u>19,705</u>
										<u>19,706</u>

	Annual Grassland	Baccharis and Other Scrub	Baccharis and Coastal Prairie	Maritime Chaparral	Mixed Conifer	Monterey Pine Forest/ Redwood Forest	Native Grassland	Oak Woodland and Savanna	Riparian/ Wetland	Total
Planning Areas outside the Focused Growth Areas Designated for Development										
Areas designated for Development in	89,427	61,171	952	323	2,238	4,690	13	85,772	3,161	249,747
Rest of Unincorporated County	93,975	63,620	1,493	377	4,267	347	47	90,613	3,258	257,937
Agricultural Wine Corridors (Note: these areas overlap with some of the Development areas in the Planning Areas)										
Central/Arroyo Seco/River Road Segment	4,364	420			45			93	1,590	6,512
Jolon Road Segment	12,617	2,755			86			1,379	2,366	19,203
Metz Road Segment	10,400	3,394			134			1,432	281	15,642
	40,854	0,111			95			8,912	1,975	72,147
Agricultural Wine Corridor Subtotal	46,644	3,819	0	0	487		0	1,536	2,077	24,260
	58,691	22,911			405			10,314	4,812	97,133

Methodology: No existing mapping for current vegetation coverage for the County was identified. Vegetation community acreages for 2006 were identified by comparing a 1982 base vegetation map to the 2006 FMMP maps for County using GIS. The FMMP coverage was used to identify urban land and important farmland (prime, statewide importance, unique). Where the FMMP maps show grazing land, land is not presumed to be urban or to be intensive agriculture, but is presumed to be original 1982 land cover. A minimum mapping unit of 2.5 acres was used for conversions. See Figures 4.9-17 through 4.9-40 for habitats by plan area.

Page 4.9-40, last page of Table 4.9-5. Insert text as follows:

Common and Scientific Names	Status Fed/State	Geographic Distribution	Habitat Requirements
MAMMALS			
Big-eared kangaroo rat <i>Dipodomys elephantinus</i>	—/SSC	Restricted to the southern Gabilan Range near the Pinnacles National Monument, San Benito and Monterey Counties	Grassland and sparse chaparral habitats where it forages in open areas and nests in underground burrows
California condor <i>Gymnogyps californianus</i>	E/E	<u>Portions of Kern, San Benito, San Luis Obispo, Monterey, Santa Barbara, Tulare, and Ventura Counties</u>	<u>Oak savannah, chaparral, coniferous forest and beaches.</u> Nesting on cliffs, large rock outcrops, or large trees
Monterey dusky-footed woodrat <i>Neotoma fuscipes luciana</i>	—/SSC	Occurs throughout Monterey and northern San Luis Obispo Counties where appropriate habitat is available	Coast live oak woodland and chaparral habitats with moderate canopy cover and moderate to dense understory and abundant deadwood for nest construction
Pallid bat <i>Antrozous pallidus</i>	—/SSC	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts
Salinas pocket mouse <i>Perognathus inornatus psammophilus</i>	—/SSC	The known range extends from near Soledad to Hog Canyon in the Salinas Valley, Monterey County	Dry, open grasslands with sandy soils
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E/T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub
Southern sea otter <i>Enhydra lutris nereis</i>	T/FP	<u>California coast from Half Moon Bay to Point Conception</u>	<u>Hard- and soft-sediment marine habitats from the littoral zone to depths of less than 100 meters, including protected bays</u>

Notes:

Status explanations:

Federal

E = listed as endangered under the federal Endangered Species Act.
T = listed as threatened under the federal Endangered Species Act.
PR = protected by the Bald and Golden Eagle Protection Act.
D = species that has been delisted under the Endangered Species Act.
— = no listing.

State

E = listed as endangered under the California Endangered Species Act.
T = listed as threatened under the California Endangered Species Act.
FP = fully protected under the California Fish and Game Code.
SSC = species of special concern in California.
— = no listing.

Page 4.9-41, second paragraph under Critical Habitat. The paragraph is revised as follows:

The USFWS has designated critical habitat for the western snowy plover, California red-legged frog, California tiger salamander, Monterey spineflower, Santa Cruz tarplant, Yadon's rein orchid, and purple amole in Monterey County. NOAA Fisheries has designated several rivers and stream in Monterey County as critical habitat (FR 70: 52488) for the South-Central California Coast Distinct Population Segment (DPS) of steelhead (*Oncorhynchus mykiss*). These streams and rivers include those found in the Carmel River and Salinas River watersheds, along with several coastal rivers, such as the Big Sur and Little Sur Rivers (Exhibit 4.9.5)

Page 4.9-45, second to last paragraph and last paragraph. The paragraphs are revised as follows:

Wine industry data (Monterey County Agricultural Commission 2008) was also reviewed to identify historic trends in vineyard acreage. In 1982 there were about 33,771 acres of vineyards and overall acreage had not changed by 1996 when 33,319 acres were in vineyard. Acreage rose to 45,043 acres in 2001 and then declined to 37,116 acres by 2003 with a slight increase to 41,309 acres by 2006. The overall 2425-year trend is an average increase of about 310300 acres per year, but between 1996 and 2006, there was an annual average increase of about 800 acres per year in vineyard acreage.

The analysis above of habitat conversion is used as the basis for impact analysis below of potential future agricultural conversions of habitat. Specifically, the 2425-year trend of habitat conversion from 1982 to 2006 (approximately 466450 acres per year on average) is used to estimate potential future habitat conversion in the impact analysis as more representative of long-term conditions than the last 10 years.

Page 4.9-46. Table 4.9-6 is revised to read:

Table 4.9-6. Monterey County Habitat Conversions, 1982 to 2006 (Includes Cities and Coastal Areas)

Conversion Type	Acres Converted 1982–2006	Acres Converted 1982–1996	Acres Converted 1996–2006
Habitat to Urban	14,692	9,830	4,862
Annual Grassland	5,370	3,179	2,191
Oak Woodland	4,896	3,538	1,358
Mixed Conifer	1,453	1,096	357
Monterey Pine Forest	566	515	51
Maritime Chaparral	474	379	95
Coastal Prairie	460	342	118
Baccharis Scrub	415	201	214
Riparian/Wetland	315	203	112
Dune	178	44	134
Oak Savanna	151	67	84
Baccharis Chaparral	111	77	34
Dune Scrub	97	60	37
Coastal Terrace Prairie	85	56	29
Coastal Scrub	60	33	27

Conversion Type	Acres Converted 1982–2006	Acres Converted 1982–1996	Acres Converted 1996–2006
Saltwater Marsh	33	32	1
Freshwater Marsh	16	8	8
Gabilan Scrub	4	0	4
Native Grassland	4	0	4
Redwood Forest	4	0	4
Habitat to Farmland	11,185	2,976	8,209
Annual Grassland	8,564	1,484	7,080
Oak Woodland	653	473	180
Riparian/Wetland	641	251	390
Coastal Prairie	428	219	209
Mixed Conifer	388	349	39
Baccharis Scrub	269	93	176
Gabilan Scrub	93	22	71
Oak Savanna	49	49	0
Saltwater Marsh	38	0	38
Baccharis Chaparral	33	15	18
Freshwater Marsh	21	21	0
Maritime Chaparral	8	0	8

Note: The totals for Monterey pine conversion from 1982 to 2006 in this table are based on different mapping data than shown in Exhibit 4.9-1 and used in Table 4.9-1. While a 2004 map of the current extent of Monterey pine forest is available, a 1982 map showing Monterey pine forest extant at that time is not available that uses the same conventions as the 2004 mapping of Monterey pine forest (Monterey County 2004b). Thus, the Monterey pine conversion shown in this table is based on a 1982 map which shows far less Monterey pine forest (1,800 acres) than is now thought to have existed at that time. As a result, this table understates the amount of Monterey pine forest converted from 1982 to 2006 and overstates the amount of mixed conifer, oak woodland, and grassland conversion (as areas that would now be defined as Monterey pine forest were defined as mixed conifer, oak woodland, and grassland in the 1982 vegetation map).

Page 4.9-54, under Other Local Programs. The following paragraphs are added to the end of this section.

Monterey Peninsula Water Management District

The MPWMD, pursuant to its Rule 124, requires property owners to obtain a permit from the District prior to undertaking work within the riparian area of the Carmel River. The riparian area is defined as being within 25 linear feet of the 10-year flood waterline defined by the Nolte and Associates for the 1984 Flood Insurance Study for Monterey County. Rule 124 specifically prohibits the following actions:

- A. Damage, remove, alter, or otherwise injure the riverbank, riverbed, canal, or reservoir which lies within the riparian corridor of the Carmel River, or take water from any canal, ditch, flume, pipe or reservoir installed or operated by the Monterey Peninsula Water Management District.
- B. Damage, remove, alter or otherwise injure any sprinkler or irrigation system installed or operated by the Monterey Peninsula Water Management District.
- C. Damage, remove, alter, deface, or otherwise injure any sign, barrier, or obstruction erected by the Monterey Peninsula Water Management District upon the riverbank or riverbed of the Carmel River, or within the riparian corridor of the Carmel River.

- D. Damage, remove, or otherwise injure any tree within or upon the riverbank or riverbed of the Carmel River.
- E. Damage, remove, or otherwise injure native vegetation, excluding poison oak, within the riparian corridor.
- F. Construct, alter, damage, or otherwise injure any dike or trail within or upon the riparian corridor.
- G. Drive, ride, park or travel in a motorized vehicle upon the riverbank, riverbed, or riparian corridor of the Carmel River without a valid river access permit issued by this District.
- H. Fail, willfully, to observe any sign, marker, warning, notice, or direction which restricts or closes the Carmel River, or any portion of its bed or banks, to motorized vehicles.

Page 4.9-57. Table 4.9-7 is replaced in its entirety

Table 4.9-7. Monterey County GP 2007 Estimated Impacts on Natural Vegetation Communities due to Development

Natural Community	Area of Potential Effect in Planning Areas outside Fort Ord	Estimated Area of Effect in Planning Areas outside Fort Ord	Fort Ord Potential Effects (b)	Total Effects
Annual Grassland	90,419	7,230	1,513	8,743
Baccharis and Gabilan Scrub	63,278	1,231		1,231
Baccharis Chaparral	316	25		25
Coastal Scrub	6	2		2
Coastal Prairie	952	25		25
Mixed Conifer	2,260	152		152
Maritime Chaparal	8	1	2,796	2,797
Monterey Pine Forest	4,619	247		247
Native Grassland	13	11		11
Oak Savannah and Woodland	85,814	2,045	1,505	3,550
Redwood Forest	71	1		1
Riparian and Wetland Areas	3,161	165	0	165
Total	250,917	11,133	5,814	16,947

Notes:

(a) Vegetation mapping described in Table 4.9-2 was overlayed with land use designations in the 2007 General Plan for all locations outside Fort Ord. Where the land use designation allows development (residential, commercial, industrial, public/quasi-public, etc.), the area was identified as a potential effect. Assumptions were made about percentage of conversion for each land use designation. Conversions for certain categories (medium density residential, industrial, mineral extraction) were assumed to be total (100%), whereas other categories were assumed to result in partial conversion (such as commercial assumed to convert 50% of the designated land) or very limited conversion (such as public-quasi public and rural density residential - both assumed to convert only 1% of designated land due to the large acreage in these designations). Assumptions are rough estimates only and may overstate or understate actual impacts as the exact amount of conversion on any specific parcel cannot be estimated accurately on a landscape level. Castroville acres and the Jefferson STA were not in the GIS land use layer and were added manually from the vegetation map GIS.

(b) Fort Ord impacts were identified based on unpublished data from the Fort Ord HCP. The total for Maritime Chaparral for Fort Ord includes coastal scrub as the HCP data did not disaggregate the totals.

Page 4.9-61, under Affordable Housing Districts. The third bullet is revised as follows:

The Highway 68 AHO near the Monterey Airport is mostly undeveloped and includes ~~55~~
~~58~~ acres of coastal prairie, ~~5~~~~42~~ acres of oak woodland, 10 acres of Monterey pine forest
and small areas of annual grassland, scrub, and previously disturbed areas. ~~The oak~~
~~woodland areas may also contain areas of native Monterey pine forest.~~

Page 4.9-63, under Agriculture. The second paragraph is revised as follows:

~~Although no net expansion of agricultural acreage is forecast, There will still be~~
expansion of agriculture onto natural lands due to the loss of agricultural lands to urban
use and ~~likely~~ also due to expansion of cropland and wine growing in ~~on slopes of the~~
Salinas Valley and other locations in the County

Page 4.9-64. Table 4.9-8 is revised to read:

Table 4.9-8. Monterey County Agricultural Habitat Conversions, 2030 and Buildout (Includes Cities and Coastal Areas)

Conversion Type	Acres Converted 1982–2006	Average Annual 1982–2006	Estimated Acres converted by 2030	Estimated Acres converted by Buildout
Habitat to Farmland	11,185	466 447	10,253 9,843	39,148 37,582
Annual Grassland	8,564	<u>357</u> 343	<u>7,850</u> 7,536	<u>29,974</u> 28,775
Oak Woodland	653	<u>27</u> 26	<u>599</u> 575	<u>2,286</u> 2,194
Riparian/Wetland	641	<u>27</u> 26	<u>588</u> 564	<u>2,244</u> 2,154
Coastal Prairie	428	<u>18</u> 17	<u>392</u> 377	<u>1,498</u> 1,438
Mixed Conifer	388	<u>16</u> 16	<u>356</u> 341	<u>1,358</u> 1,304
Baccharis Scrub	269	11	<u>247</u> 237	<u>942</u> 904
Gabilan Scrub	93	4	<u>85</u> 82	<u>326</u> 312
Oak Savanna	49	2	<u>45</u> 43	<u>172</u> 165
Saltwater Marsh	38	2	<u>35</u> 33	<u>133</u> 128
Baccharis Chaparral	33	1	<u>30</u> 29	<u>116</u> 111
Freshwater Marsh	21	1	<u>19</u> 18	<u>74</u> 71
Maritime Chaparral	8	0	7	<u>28</u> 27

Methodology: See Table 4.9-6. Forecast for 2030 and buildout based on 1982 to 2006 averages.

Page 4.9-65. The third paragraph on this page is revised to read:

The installation of new vineyards, row crops, and other actively managed agricultural uses (including routine and ongoing agriculture), mining extraction, and other activities could also result in the elimination of essential habitat for CEQA-defined special-status species. Even if the sensitive habitat is deliberately avoided at the project level, new

development and intensively managed land practices would result in fragmentation of the existing habitat and leave the CEQA-defined special-status species population at risk of extirpation (local extinction). The exact amount of habitat conversion due to agricultural expansion onto uncultivated lands is not known. Based on recent trends from 1982 to 2006 when approximately 466450 acres of habitat were converted each year on average, if this trend continued to 2030, then approximately 10,253 9,850 acres of habitat would be converted across the County.

Page 4.9-69. The first full paragraph on this page is revised to read:

Policy OS-5.16, as revised, requires biological surveys and implementation of mitigation measures for development that would potentially disturb species or habitat that are to be protected under the terms of CEQA disturbed listed species or its critical habitat. Policy OS-5.17 requires the County to develop a program to mitigate the loss of critical habitat. Policy OS-5.18 requires all applicable federal state permitting requirements to be met before disturbing any federal or state jurisdictional areas.

Page 4.9-73, under Significance Determination. The three paragraphs in this section are revised as follows.

The definition of “special status species” in the 2007 General Plan (Glossary, p. 13) has been deleted in the revised General Plan in favor of an expanded Glossary definition of “Listed Species” and revised Policy OS-5.16, which offers protections for species identified under CEQA’s mandatory finding of significance. is limited to those listed under the ESA and the CESA and “Critical habitat” is defined as areas designated under the ESA. 2007 General Plan Policies OS-5.1,-5.2,-5.3, -5.4, -5.12, -5.16,-5.17, and -5.18 require avoidance, minimization, and compensation of impacts to listed “special-status species”. However, there is a landscape-level concern related to new discretionary development in the Salinas Valley that may occur in potential kit fox habitat that is not fully addressed by the previously currently proposed General Plan policies. The revised General Plan includes Policy OS-5.19 that calls for development of a conservation strategy that will provide a There is no specific mechanism for mitigating potential impacts to this species from conversion of its habitat due to discretionary development. Additionally, proposed Policies OS-5.20 (5-year reconsideration of growth areas), OS-5.21 (5-year reconsideration of species vulnerability and conservation strategy), OS-5.22 (stream setback ordinance), OS-5.23 (oak woodlands mitigation program), OS-5.24 (retention of wildlife movement corridors), and OS-5.25 (protection of migratory birds and raptors) will work individually and together to minimize impacts on what CEQA considers to be special status species. Because the Given the General Plan definition of “special status policies”, the aforementioned policies in the 2007 General Plan for biological resources in the Open Space and Public Services Elements concerning “special status species” do not provide for the assessment or mitigation of impacts to species that are not listed under the FESA or CESA. While there are a number of Area Plan policies that provide for protection or mitigation of impacts to certain CEQA defined special status species, and the policies for the protection for habitats of listed species will produce co-benefits for non-listed (but rare) other species, the 2007 General Plan, as revised, provides does not provide a systematic approach to address impacts of development to CEQA-defined special-status species as described above in this document.

This impact is considered potentially significant, because However, in consideration of revised Policy OS-5.16 and new Policies OS-5.20 through OS-5.25, development under the 2007 General Plan would be required to mitigate for reduction in result in reduced

numbers, range, and habitat quantity and quality for plant, wildlife, and fish species that are ~~considered “rare, threatened, or endangered” as defined~~^{covered} by CEQA guidelines Section 1506515380 but which are not protected by the federal or state endangered species acts. The following mitigation measures are recommended for implementation by the County, along with Policy OS-5.16.

Page 4.9-73, under Mitigation Measures. Mitigation Measure BIO-1.1 is deleted.

Mitigation Measure BIO-1.1: Baseline Inventory of Landcover, CEQA-Defined Special Status Species Habitat, Sensitive Natural Communities, Riparian Habitat, and Wetlands in Monterey County

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 CEQA-defined 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).

Page 4.9-74. Mitigation Measure BIO-1.2 is revised as follows:

Mitigation Measure BIO-1.2: Salinas Valley Conservation Plan to preserve habitat for the San Joaquin kit fox in the Salinas Valley

The County shall, in concert with the ~~USFWS U.S. Fish and Wildlife Service, CDFG California Department of Fish and Game~~, cities in the Salinas Valley, and stakeholders develop a conservation ~~plan~~-strategy 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~~-strategy, 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~~-strategy area. The County shall complete the conservation ~~strategy~~ within 4 years of General Plan adoption. The conservation ~~strategy~~ funding program shall be developed and shall ~~include~~^{consider} a mitigation fee program for which development projects will be assessed a fee based on a proportional basis of impact to the San Joaquin kit fox as one of the options. The compensation ~~plan~~-strategy 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.

Until the adoption of the conservation strategy, habitat loss due to discretionary projects shall be mitigated on a project-by-project basis.

Page 4.9-74. Mitigation Measure BIO-1.3 is deleted. The revisions to General Plan Policy OS-5.16 provide for site-specific analysis and mitigation of site-specific effects on at the development project level.

Mitigation Measure BIO-1.3: Project Level Biological Survey and Avoidance, Minimization, and Compensation for Impacts to CEQA-defined Special Status Species and Sensitive Natural communities.

~~The County shall require that any development project that could potentially impact a CEQA-defined special status species or sensitive natural community shall be required to conduct a biological survey of the site. If CEQA-defined 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 CEQA-defined 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:~~

- Development in Focused Growth Areas (Community Areas, Rural Centers and Housing Overlays)
- Development requiring a discretionary permit
- Large scale wineries in the AWCP.

Page 4.9-75, under Significance Conclusion. The first two paragraphs are revised as follows:

Over 80% of the development in Monterey County within the 2030 Planning Horizon will occur in areas designated for focused growth. Discretionary permits will be required for this development as well as for any large scale residential and commercial development that might occur outside of these areas (and is subject to the Subdivision Development Evaluation System). The Subdivision Development Evaluation System under Policy LU-1.19 examines subdivisions of 5 or more lots or projects of equivalent intensity and quantitatively evaluates development in light of the policies of the General Plan and the implementing regulations, resources and infrastructure, and the overall quality of the development. This analysis includes consideration of environmental impacts and mitigation. Additionally, revised Policy OS-5.16 requires preparation of a biological study for any development project requiring a discretionary permit and having the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species (this comprises CEQA-defined special status species). When the project may adversely affect any of these species, feasible measures to reduce significant impacts to a less than significant level shall be adopted as conditions of approval. For discretionary development, implementation of the General Plan policies alone would have resulted in significant impacts to the San Joaquin kit fox and to CEQA-defined special status species. Mitigation Measure BIO-1.1 creates a biological resources inventory (including CEQA-defined special status species) that will be periodically updated. Mitigation Measure BIO-1.2 would address impacts to kit fox habitat that might occur from development. Mitigation Measure BIO-1.3 requires preparation of a biological report that includes measures to avoid impacts or minimize impacts to CEQA-defined special status species for focused growth allowed under the General Plan, other large scale projects and projects requiring discretionary permits in the County.

These General Plan policies and mitigation measures would address impacts from discretionary large-scale residential, commercial, public infrastructure and agricultural development. In combination with the application of Area Plan policies targeting specific CEQA-defined special-status species, impacts to special-status species (both

listed and CEQA-defined) from discretionary development would be considered less than significant.

Page 4.9-76. The second paragraph is revised as follows:

The remaining development consists of conversion of previously uncultivated agricultural lands to new farmland. Previously uncultivated lands are those areas that have not been cultivated during the past 20 years. As shown in the pattern of historic conversion (see Exhibits 4.9.6, 4.9.7, 4.9.8, and 4.9.9), conversion of natural communities would be widely dispersed geographically throughout the ranges of CEQA-defined special-status species addressed in this document. Thus future habitat conversions are expected to be dispersed and not concentrated in a way that they would substantially change overall populations of CEQA-defined special-status species. New agricultural development would be subject to the Agricultural Waiver Program concerning water quality protection, which will protect downstream aquatic species habitat that contain CEQA-defined special-status species from indirect water quality effects. For agricultural conversions on slopes greater than 25%, Policy OS-3.5 includes requirements to address water quality, erosion and biological resources, which would reduce potential impacts to CEQA-defined special-status species and their habitat. Based on the assumption that conversion of previously uncultivated lands is not anticipated to exceed the previous 2425 year trend (1982 – 2006) in the County (approximately 466450 acres per year), the sporadic and discontinuous pattern of crop expansion, the extensive geographic distribution of agricultural operations especially within the Salinas Valley, and the application of current regulatory requirements to address off-site water quality impacts, agricultural conversion is not considered to result in a significant impact to CEQA-defined special-status species or their habitat.

Page 4.9-77. The discussion under “Mitigation Measures” is revised as follows:

Mitigation Measures BIO-1.21.1 through BIO 1.3 as described above.

Mitigation Measure BIO-1.4: By 2030, prepare an Update to the General Plan to identify expansion of existing focused growth areas and/or to identify new focused growth areas to reduce loss of natural habitat in Monterey County

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. At five year intervals, the County shall examine the degree to which thresholds predicted in the General Plan EIR for the timeframe 2006-2030 for increased population, residential construction and commercial growth have been attained. If the examination indicates that actual growth is within 10% of the thresholds (10,015 new housing units; 500 acres new commercial development; 3111 acres new industrial development and 10,253 acres of land converted to agriculture) the County shall initiate a General Plan Amendment process to consider the expansion of focused growth areas established by the 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 CEQA-defined special status species and habitat addressed by Policy OS-5.16 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. This update will also address expansion of agricultural operations and potential impacts to CEQA-defined special status species and habitat addressed by policy OS-5.16.

Page 4.9-78. Mitigation Measure BIO-1.5 is revised as follows:

Mitigation Measure BIO-1.5: By 2030, prepare a Comprehensive County Natural Communities Conservation PlanStrategy

At five year intervals, the County shall examine the degree to which thresholds for increased population, residential construction and commercial growth predicted in the General Plan EIR for the timeframe 2006-2030 have been attained. If the examination indicates that actual growth is within 10% of the growth projected in the General Plan EIR (10,015 new housing units; 500 acres new commercial development; 3111 acres new industrial development and 10,253 acres of land converted to agriculture), then the County shall assess the vulnerability of currently non-listed species becoming rare, threatened or endangered due to projected development. 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 CEQA defined special status species conservation strategy for those areas containing substantial suitable habitat for plant and wildlife species with the potential to become listed species up to buildout of the County due to development. The County shall invite the participation of the incorporated cities, the federal land agencies, Caltrans and other stakeholders. The NCCP conservation strategy shall also cover preservation of sensitive natural communities, riparian habitat, and wetlands, and wildlife movement corridors and include mechanisms including such as on and off-site mitigation ratios and fee programs for mitigating impacts or their equivalent.

Page 4.9-78. The first paragraph under “Significance Conclusion” is revised as follows:

Implementation of General Plan policies and Mitigation Measures BIO-1.1 through BIO-1.2, 1.4, and 1.5 would reduce impacts of buildout on CEQA-defined special-status species and their habitat to a less than significant level.

Page 4.9-81. Insert the following at the end of the “Open Space and Conservation” section:

Revised Policy OS-5.16 will require a biological study to be prepared for any development project requiring a discretionary permit and having the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species. The results of the study will be used in the site-specific environmental analysis for that project.

Page 4.9-86. Revise the first paragraph under “Project Level Mitigation Measure,” as follows:

Mitigation Measure BIO-1.1Revised Policy OS-5.16, as described above under Impacts to CEQA-defined special-status species, will act to mitigate this impact.

Page 4.9-86. Mitigation Measure BIO-2.1 is revised as follows:

Mitigation Measure BIO-2.1: Stream Setback Ordinance.

~~The In order to preserve riparian habitat, conserve the value of streams and rivers as wildlife corridors and reduce sediment and other water quality impacts of new development, the county shall develop and adopt a county wide Stream Setback Ordinance. The ordinance shall 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 inland portions of 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 shall identify appropriate uses within the setback area that would not cause removal of riparian habitat, compromise identified riparian wildlife corridors, or compromise water quality of the relevant stream.~~

The Stream Setback Ordinance shall apply to all discretionary development, County public projects 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 slopes over 10%. ~~The stream setback ordinance shall be adopted within three (3) years of adoption of the General Plan.~~

Page 4.9-86. Mitigation Measure BIO-2.2 is revised as follows:

Mitigation Measure BIO-2.2: Oak Woodlands Mitigation Program.

The County shall prepare, adopt and implement a program that allows project to mitigate the loss of oak woodlands. The program ~~would include~~ shall be consistent with California Public Resources Code Section 21083.4, and will identify a combination of the following mitigation alternatives: a) ratios for replacement, b) payment of fees to mitigate the loss or direct replacement for the loss of oak woodlands and monitoring for compliance, and c) conservation easements. 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 of fees to either a local fund established by the County or a state fund. Until such time as the County program is implemented, consistent with Public Resources Code section 21083.4 (b), payment of projects shall pay a fee ~~may be made~~ to the State Oak Woodlands Conservation Program Fund (OWCF). Replacement of oak woodlands shall be on a minimum 1:1 ratio provide for equivalent acreage and ecological value at a minimum of 1:1 ratio. The program shall prioritize the conservation of oak woodlands that are within known wildlife corridors as a high priority. ~~The oak woodlands mitigation program shall be adopted within 5 years of adoption of the General Plan.~~

Page 4.9-87. Mitigation Measure BIO-2.3 is revised as follows:

Mitigation Measure BIO-2.3: Add Considerations Regarding Riparian Habitat and Stream Flows to Criteria for Long-Term Water Supply and Well Assessment.

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:

- 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, for the purpose of minimizing impacts to those resources and species.
- 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, for the purpose of minimizing impacts to those resources and species.

h— A discretionary permit shall be required for new wells in the Carmel Valley alluvial aquifer. All new wells shall be required to fully offset any increase in extractions from this aquifer. These requirements shall be maintained until such a time that the Coastal Water project (or its equivalent) results in elimination of all Cal-Am withdrawals in excess of its legal rights.

i— A discretionary permit shall be required for all new wells in fractured rock or hard rock areas in the North County Area Plan in order to provide for case by case review of potential water quality and overdraft concerns. This requirement shall be maintained until such a time that a water supply project or projects are completed that addresses existing water quality and water supply issues in fractured rock or hard rock areas.

Page 4.9-87. Revise the first paragraph under “Project Level Mitigation Measure,” as follows:

Mitigation Measure BIO-1.3 Revised Policy OS-5.16, as described above under Impacts to CEQA-defined special-status species, will act to mitigate this impact.

Page 4.9-88. Revise the first paragraph under “Mitigation Measures,” as follows:

Mitigation Measures BIO-4.1, 1.2, 1.3, 1.4, and 1.5 as described above under Impacts to CEQA-defined special-status species.

Page 4.9-88. Revise the first paragraph under “Significance Conclusion,” as follows:

Implementation of General Plan policies, in particular Policy OS-5.16, Mitigation Measures BIO-4.1 through BIO-1.2, 1.4 and 1.5, and Mitigation Measures BIO-2.1 through 2.3 would reduce impacts of buildout on sensitive natural communities, riparian habitat, and wetlands to a less than significant level.

Page 4.9-91. Revise the second full paragraph, as follows:

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

Policy OS-5.13 encourages efforts to obtain and preserve natural areas of particular biologic, scientific, or educational interest and restrict incompatible uses from

encroaching upon them. Policy OS-5.16, as revised, will require a biological study to be prepared for any development project requiring a discretionary permit and having the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species. Policy OS-17 requires the County to develop a program to mitigate the loss of critical habitat.

Page 4.9-91, Safety Element. Delete this paragraph.

Safety Element

~~Goal S-2 and Policies S-2.1 through 2.8 address reducing development in the floodplain and reducing impacts that would occur within the floodplain.~~

Page 4.9-94, under Mitigation Measure BIO-3.1: The measure is revised as follows:

The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat. The County shall require that expansion of ~~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 opportunities for wildlife movement and access. Among others, sources of information about wildlife corridors in Monterey County can be found in the following references:

- California Wilderness Coalition. 2001. Missing Linkages: Restoring Connectivity to the California Landscape.
- The Nature Conservancy. 2006. California Central Coast Ecoregional Plan Update. October.

Page 4.9-95. Revise the first paragraph, as follows:

Over 80% of the development in Monterey County within the 2030 Horizon will occur in areas designated for focused growth. Discretionary permits will be required for this development as well as for any large scale residential and commercial development that might occur outside of these areas (subject to the Subdivision Evaluation System). For discretionary development, implementation of the General Plan policies alone would have potentially resulted in significant impacts to wildlife movement corridors.

Mitigation Measure BIO-3.1 requires consideration of wildlife movement for all discretionary projects. Mitigation Measure BIO-1.2 would address impacts to kit fox habitat that might occur from development and will have co-benefits for the protection of wildlife movement for other species. ~~Mitigation Measure BIO-1.3 requires preparation of a biological report that includes measures to avoid impacts or minimize impacts to CEQA-defined special status species, which may also have some co-benefits for wildlife movement corridors.~~ Mitigation Measure BIO-2.1 would further protection riparian corridors for wildlife movement.

The biological study required pursuant to Policy OS-5.16, as revised, will identify wildlife corridors on a site-specific basis. This will enable the County to apply pertinent conditions of approval to the project.

Page 4.9-95. Revise the last paragraph, as follows:

The remaining development consists of conversion of previously uncultivated agricultural lands to new farmland. As shown in the pattern of historic conversion (see Exhibits 4.9.6, 4.9.7, 4.9.8, and 4.9.8), conversion of natural communities would be widely dispersed geographically throughout the County. Based on the assumption that conversion of previously uncultivated lands is not anticipated to exceed the previous 2425 year trend (1982 – 2006) in the County (approximately 466450 acres per year), the sporadic and discontinuous pattern of crop expansion, and the geographic distribution of agricultural operations (especially within the Salinas Valley), agricultural conversion is not considered to result in a significant impact to wildlife movement corridors.

Page 4.9-96. Delete the second paragraph under “Mitigation Measures,” as follows:

~~Mitigation Measure BIO 1.3 as discussed above under Impacts to CEQA Defined Special Status Species.~~

Page 4.9-97, first paragraph under “Significance Conclusion.” Revise the paragraph as follows:

Implementation of General Plan policies would focus growth to 2030 and Mitigation Measure BIO-1.4 would focus growth for the period after 2030. Implementation of a NCCP for the County would provide for long-term conservation needs, which to be effective, must include effective preservation of wildlife movement corridors. Mitigation Measures BIO-1.2 would address conservation needs for the San Joaquin kit fox which will produce co-benefits for wildlife movement corridors. The new Stream Setback Ordinance would further protection of riparian corridors beyond the level provided in the General Plan. ~~Mitigation Measure BIO 1.3 would Policy OS-5.16, as revised, will~~ require consideration of preservation of wildlife movement areas as part of the biological study prepared during project- review. The combined effect of these measures is to identify and plan for the long-term vitality of wildlife movement corridors in the Count and thus this impact is less than significant.

Page 4.9-98. Revise Mitigation Measure BIO-3.2 as follows:

Mitigation Measure BIO-3.2: Remove Vegetation during the Nonbreeding Season and Avoid Disturbance of Nesting Migratory Birds, Including Raptors, as Appropriate (generally September 16 to January 31~~February 1 to September 15~~).

~~Vegetation removed in the course of development will be removed only during the nonbreeding season (generally September 16 to January 31). Occupied nests of statutorily protected migratory birds, including and raptors will be avoided during this period shall not be disturbed during the breeding season (generally February 1 to September 15). 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 or raptors, (2) determine whether site vegetation is suitable to nesting migratory birds or raptors, (3) identify any regulatory requirements for setbacks or other avoidance measures for migratory birds and raptors which could nest on the site, and (4) establish project-specific requirements for setbacks, lock-out periods, or other methods of avoidance of disruption of nesting birds. The county shall require the development to follow the recommendations of the biologist. This measure may be implemented in one of two ways: (1) preconstruction surveys can be conducted to identify active nests and if found,~~

adequate buffers shall be provided to avoid active nest disruption until after the young have fledged; or (2) vegetation removal can be conducted during the non-breeding season (generally September 16 to January 31); however, removal of vegetation along waterways shall require approval of all appropriate local, state, and federal agencies.

This policy would not apply in the case of an emergency fire event requiring tree removal. This policy would apply for tree removal that addresses fire safety planning, since removal can be scheduled to reduce impacts to migratory birds and raptors.

Page 4.9-104. Revise the third paragraph under “Mitigation Measures,” as follows:

Mitigation Measure BIO-1.5: By 2030, prepare a Comprehensive ~~County Natural Communities~~ Conservation PlanStrategy

Section 4.9 Exhibits. Exhibit 4.9-1 was revised to incorporate the latest mapping of Monterey pine forest extent. Exhibit 4.9-2 was updated to note the Monterey pine forest within the Highway 68/Airport AHO and the correct extent of the designated wine corridor. Exhibits 4.9-3 and 4.9-4 were updated to note the d the correct extent of the designated wine corridor. New Exhibit 4.9-5a was added to show the critical habitat for Yadon’s piperia. These exhibits are at the end of this chapter.

Section 4.10, “Cultural Resources”

Page 4.10-7. Insert the following after the discussion of the Esselen peoples at the top of the page.

Salinan

The Salinan culture inhabited eastern and southern Monterey County though the precise extent of their territory is uncertain. According to mission records, their territory roughly extended in the interior from Soledad in the north to San Luis Obispo in the south and along the coast from Lucia in the north to Morro Bay in the south. Prior to European contact, the Salinan spoke a language tentatively classified as a member of the Californian branch of the Hokan language family (Hester 1978). The number of prehistoric dialects remains unknown, and because no known native speakers survive, the language is considered extinct.

The Salinan have been conventionally subdivided into two main bodies: the Antoniano or Northern of the northwest half of the range, and the Migueleno or Southern who occupied the southeastern half of the range. As the names imply, the division assumes association with either of the two Spanish missions established on Salinan lands: Mission San Antonio de Padua, established 1771, and Mission San Miguel, to the south, founded in 1797 (Hester 1978). Population estimates are based largely on mission-era documents, and estimates from neighboring groups for which more information is available. Common population estimates for the Salinan area as a whole range from 2,000 and 3,000, during the early 19th century (Kroeber 1925). All known village locations for which names are recorded occur along the Estrella, San Antonio, Salinas, and Nacimiento Rivers, along Cholame Creek to the east, and along the coast.

The Salinan dietary breadth accommodated a wide variety of animal and vegetal resources. The material culture of the Salinan reflects a broad economic and subsistence foundation. Use of the bowl mortar and pestle, as well as the mano and metate is evident, in addition to wooden and hopper mortars, and stone bowls. General-purpose tools and task-specific items such as fishhooks were crafted from materials such as shell and bone (Hester 1978). Salinan economy was based primarily on procurement and manufacture of local resources, and evidence suggests moderate amounts of local and distant trade. Contact with the Yokuts to the east and the Chumash to the south appears to have been fairly consistent in areas with common cultural boundaries. Archaeological expressions suggest the Chumash and Yokuts had influence on the Salinan, based on shared material culture and, with the Chumash, possible common ancestry. Reciprocal visits allowed groups of each nation limited access to lands and resources once considered exclusive (Hester 1978).

Limited information allows for only the broadest interpretation of Salinan social and political organization. It is not unlikely that the social and political organization of these people differed greatly from patterns observed among neighboring groups in the region. Observed in its basic structure, the primary social entity is the tribelet, composed of a single village or multiple affiliated villages. Neighbors and outsiders were considered as such with respect to the distances between the Salinan and those outside the tribelet. Similar to other Native American groups in California, there appears to be no concept of a chief, but rather a headman, whose position was most likely based on family wealth or descent but whose power may have extended over multiple villages (Harrington 1942).

Page 4.10-9, under State Historic Preservation Programs. Revise the second bullet as follows.

- California Register of Historical PlacesResources

Page 4.10-15, under Mitigation Measures. Revise Mitigation Measure CUL-1 as follows.

Policy CSV-1.1 of the Central Salinas Valley Area Plan will be revised to read:

CSV-1.1 Special Treatment Area: Paraiso Hot Springs—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, 418-381361-021, 418-381361-022).

Page 4.10-27, under Level of Significance after Mitigation. Revise the paragraph as follows.

All impacts on cultural resources would be less than significant with implementation of the measures in the 2007 General Plan, and no additional mitigation measure CUL-1, as discussed under Impact CUL-1 would be required.

Section 4.11 Public Services and Utilities

Page 4.11-5, second paragraph under “Wastewater Treatment Facilities”. Revise the paragraph as follows:

The Carmel Area Water District (CAWD) is the other regional district providing wastewater services in the county. The CAWD operates and maintains sewage collection, treatment, and disposal facilities. The District's facilities are located at the mouth of the Carmel River and serve the City of Carmel-by-the-Sea, Del Monte Forest/Pebble Beach, and portions of the Carmel Valley. The permitted wastewater treatment plant capacity is 3.04.0 MGD (about 9.224.2 acre-feet per day) and current demand is 2.04.7 MGD (about 6.15.2 acre-feet per day).

Page 4.11-6, Table 4.11-4. The table is revised as follows:

Table 4.11-4. Municipal Wastewater Disposal in Monterey County

Wastewater Treatment System	Service Area	Treatment Level	Capacity	Current Use	Remaining Capacity
Monterey Regional Water Pollution Control Agency	Del Rey Oaks, Marina, Monterey, Pacific Grove, Salinas, Sand City, Seaside	Tertiary	29.6 MGD (27.0 MGD permitted)	21 MGD	8.6 MGD
Carmel Area Wastewater District	Carmel-by-the-Sea, Pebble Beach, portions of Carmel Valley	Tertiary	4.0 MGD (3.0 MGD permitted)	<u>2.04.7</u> MGD	<u>1.02.7</u> MGD
Gonzales	Gonzales	Primary	<u>1.30.706</u> MGD	<u>0.5240.35</u> MGD	<u>0.7760.356</u> MGD
Greenfield	Greenfield	Primary	1.0 MGD	<u>0.90.8</u> MGD	<u>0.10.2</u> MGD
King City	King City	Secondary	<u>3.04.2</u> MGD	<u>1.20.731</u> MGD	<u>1.80.469</u> MGD
Soledad	Soledad	Secondary	5.6 MGD (<u>4.13.1</u> MGD permitted)	<u>3.42.5</u> MGD	<u>0.73.4</u> MGD

MGD = Million gallons per day.

Sources: Association of Monterey Bay Area Governments 1999; Local Agency Formation Commission of Monterey County 2006a, 2006b, 2007; Central Coast Regional Water Quality Control Board. 2006.

Page 4.11-8, last paragraph under “Water Diversion Rates”. Revise the paragraph as follows:

The State requires that each jurisdiction achieve a diversion rate of at least 50 percent. As of 2006, Monterey County is/was currently in compliance with this requirement.

Page 4.11-34, under Mitigation Measure PS-1. Revise the measure as follows:

PS-1: The County will add the following policy to the 2007 General Plan:

Policy S-3.9: require all future developments to implement Best Management Practices (BMPs) as approved in the Monterey Regional Storm Water Management Program which are designed to incorporate the most feasible number of Low Impact Development (LID) techniques into their stormwater management plan. BMPs 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.

Page 4.11-37, under Significance Determination. Revise the first paragraph as follows:

Implementation of the 2007 General Plan would increase solid waste generation, and therefore would ~~consume~~ require additional landfill capacity and require new or expanded transfer stations and recycling facilities. As summarized in Table 4.11-5, the four active landfills located in Monterey County have adequate capacity to accommodate additional solid waste generated by implementation of the 2007 General Plan.

Section 4.13, “Hazards and Hazardous Materials”

Page 4.13-29, first paragraph. The first sentence is revised as follows.

Policies S-6.1 (emergency service availability consideration), S-6.2 (emergency service priority based on highest population), S-6.3 (establishment of Development Impact Ordinance for protection coverage and emergency services facilities), S-6.4 (Community Area development based on emergency response time), S-6.5 (~~countywide~~ fire and ambulance service-level goals), and S-6.6 (development of informational brochures regarding level of fire and ambulance service) establish specific performance standards such as staffing ratios and response times so that the County’s emergency response systems are always adequate.

Page 4.13-29, second paragraph. The second sentence is revised as follows.

Policy S-6.5 establishes ~~countywide~~ service level goals for fire and ambulance/emergency service as:

Section 4.16, “Climate Change”

Page 4.16-1. Third paragraph is revised as follows:

For buildout within the County beyond the 2030 planning horizon, not all of the technology has been developed to implement reductions to meet the goals of Executive Order S-3-05, which requires reduction of GHG emissions to levels 80 percent below 1990 levels by 2050. Mitigation identified in this chapter requires continuation of the GHG Reduction Plan beyond 2030 as well as adoption of a new General Plan by 2030 that would examine options to focus growth for the period after 2030. These measures would identify feasible means along with state and federal actions that might be able to

reduce emissions to 80 percent below 1990 levels, but given that the means to effect such emissions are not known at present, buildout within the County beyond 2030 is determined to make a ~~considerably~~ considerable contribution to cumulative GHG emissions and global climate change

Page 4.16-4. The second paragraph is deleted:

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

Page 4.16-5. The second paragraph is revised as follows:

An inventory of current Monterey County GHG emissions was prepared estimated on the basis of estimated vehicle miles traveled, natural gas consumption, electricity use, industrial process activity, landfill activity, fugitive methane from natural gas pipelines and agricultural offroad equipment use and is presented in Table 4.16-1. The methodology for preparation of the current GHG inventory is presented in the Technical Supporting Data at the end of this FEIR Appendix B. The inventory methodology for the local community emissionsgovernment operations is consistent with the California Climate Action Registry (CCAR) General Protocol (CCAR 2008) and The Climate Registry General Protocol (The Climate Registry 2008).

Page 4.16-5. Table 4.16-1 is revised as follows:

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

Source	GHG Emissions	% of Total	Notes
Vehicle Emissions	647,175	<u>46%</u> <u>45%</u>	Includes miles on County roads and 25% of state highway miles.
Natural Gas Consumption	190,848	<u>14%</u> <u>13%</u>	Residential, commercial, and industrial consumption from PG&E.
Electricity Consumption	209,103	15%	Residential, commercial, and industrial consumption from PG&E.
Industrial Processes	201,290	14%	Based on MBUAPCD inventory data.
Landfill Emissions	32,829	2%	Based on CIWMB data.
<u>Offroad Equipment Use</u>	<u>152,114</u>	<u>11%</u>	<u>Based on OFFROAD model with apportionment.</u>
<u>Fugitive Methane from Nat. Gas Pipelines</u>	<u>5,417</u>	<u>0%</u>	<u>Based on California per capita average</u>
<u>Agricultural Equipment Fuel Use</u>	<u>113,159</u>	<u>8%</u>	<u>Based on farm acreage and state averages.</u>
Total	<u>1,394,404</u> <u>1,438,778</u>	100%	

Source: See Technical Supporting Data at the end of this FEIR

Page 4.16-6. First paragraph, is revised as follows:

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

Page 4.16-7. First paragraph, third line from last is revised as follows:

It cited several risks that California faces from climate change, including reduction in the state's water supply, increased air pollution creation by higher temperatures, harm to agriculture, and increase in wildfires, damage to the coastline, and economic losses caused by higher food, water, energy, and insurance prices. Further the legislature stated that technological solutions to reduce GHG emissions would stimulate California economy and provide jobs.

Page 4.16-8, under AB 32. Fifth bullet is revised as follows:

- January 2,4-1011 2011—Adoption of GHG emission limits and reduction measures by regulation.

Page 4.16-8, under AB 32 Early Actions. First bullet is revised as follows:

- Group 1—Three new GHG-only regulations are proposed to meet the narrow legal definition of “discrete early action greenhouse gas reduction measures” in Section 38560.5 of the Health and Safety Code. These include the Governor’s Low Carbon Fuel Standard, reduction of refrigerant losses from motor vehicle air conditioning maintenance, and increased methane capture from landfills. These actions are estimated to reduce GHG emissions between 13 and 26 MMT of CO₂e) annually by 2020 relative to projected BAU levels. If approved for listing by the Governing Board, these measures will be brought to hearing in the next 12 to 18 months and take legal effect by January 1, 2010.

Page 4.16-9. Second paragraph from the bottom, third line from the bottom is revised as follows:

On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide ~~for~~ per person in California down to about 10 tons per person by 2020. Below is a summary of the recommended reduction strategies.

Page 4.16-11. Table 4.16-2 is revised as follows:

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

Recommended Reduction Strategies	Sector	2020 Reductions (MMTCO ₂ e)
The Role of State Government Reduce carbon footprint Set an example	Various	1-2 (under evaluation)
<u>Estimated Reductions Resulting from the Combination of Cap-and-Trade Program and Complementary Measures</u>		
California Cap and Trade Program Linked to WCI: Emissions cap of 365 MMTCO₂e covering electricity, transportation, residential/commercial and industrial sources by 2020. Shaded reductions below contribute to achieving the cap.		
California Light-Duty Vehicle GHG Standards · Implement Pavley standards Develop Pavley II light-duty vehicle standards	Transportation	31.7
Energy Efficiency	Electricity & Commercial and Residential	<u>26.3</u> 26.4
<ul style="list-style-type: none"> Building and appliance energy efficiency and conservation 32,000 GWh reduced electricity demand · 800 million therms reduced gas use Increase Combined Heat and Power (CHP) electricity production by 30,000 GWh Solar Water Heating (AB 1470 goal) 		
Renewables Portfolio Standard (33% by 2020)	Electricity	<u>21.3</u> 21.2
Low Carbon Fuel Standard	Transportation	<u>15</u> 16.5
<u>Regional Transportation-Related GHG Targets</u> High Global Warming Potential Gas Measures	<u>Transportation</u> High GWP	<u>5.0</u> 6.2
Sustainable Forests	Forests	5

Recommended Reduction Strategies	Sector	2020 Reductions (MMTCO ₂ e)
<u>Water Sector Measures</u>	Water	4.8
Vehicle Efficiency Measures	Transportation	<u>4.54.8</u>
Goods Movement	Transportation	3.7
<ul style="list-style-type: none"> Ship Electrification at Ports System-Wide Efficiency Improvements 		
Heavy/Medium Duty Vehicles	Transportation	<u>1.42.5</u>
<ul style="list-style-type: none"> Heavy-Duty Vehicle GHG Emission Reduction (Aerodynamic Efficiency) Medium-and Heavy-Duty Vehicle Hybridization 		
<u>Heavy Duty Engine Efficiency</u>		
Million Solar Roofs (Existing Program Target)	Electricity	2.1
<u>Industrial Measures (for sources covered under cap-and-trade program)</u>	<u>Industrial Land Use and Local Government</u>	<u>0.32</u>
<ul style="list-style-type: none"> <u>Refinery Measures</u> <u>Energy Efficiency and Co-benefits Audits</u> 		
<u>Local Government Actions and Regional GHG Targets</u>		
High Speed Rail	Transportation	1.0
<u>Landfill Methane Control</u>	<u>Recycling & Waste</u>	<u>4</u>
<u>Methane Capture at Large Dairies</u>	Agriculture	<u>4</u>
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	Industrial	<u>0.3TBD</u>
<u>Additional Reductions Necessary to Achieve the Cap Emissions Reduction from Capped Sectors</u>		<u>34.435.2</u>
<u>Estimated Reductions from Uncapped Sources/Sectors</u>		
<u>High Global Warming Potential Gas Measures</u>	<u>High GWP</u>	<u>20.2</u>
<u>Sustainable Forests</u>	<u>Forests</u>	<u>5.0</u>
<u>Industrial Measures (for sources not covered under cap-and-trade program)</u>	<u>Oil and Gas Extraction and Transmission</u>	<u>1.1</u>
<u>Recycling and Waste (landfill methane capture)</u>	<u>Recycling and Waste</u>	<u>1</u>
Total Reductions Counted Toward 2020 Target		<u>174169</u>

Source: California Air Resources Board 2008eb.

Notes:

- (1) An emissions cap of 365 MMTCO₂e covering electricity, transportation, residential/commercial and industrial sources by 2020 is adopted as part of the California Cap-and-Trade Program Linked to Western Climate Initiative.
- (2) Regional Transportation-Related GHG Targets is an estimate of what may be achieved from local land use changes and is not the SB 375 regional target. The regional targets will be set separately.

Page 4.16-14 through 4.16-17. The discussion of the greenhouse gas emissions significance threshold is revised as follows:

Greenhouse Gas Emissions

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

The Governor’s Office of Planning and Research (OPR) developed ~~is developing~~, and the California Resources Agency (Resources Agency) ~~will certify and~~ adopted amendments to the CEQA Guidelines ~~on or before January 1, 2010~~, pursuant to Senate Bill 97 (Dutton, 2007). These new CEQA Guidelines, ~~which are scheduled to take effect march 18, 2010~~, ~~will provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents. These guidelines specify that CEQA document should disclose the baseline GHG emissions, project GHG emissions, make a significance determination, and adopt mitigation where significant impacts are identified.~~

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

- ~~■ “When assessing a project’s GHG emissions, lead agencies must describe the existing environmental conditions or setting, without the project, which normally constitutes the baseline physical conditions for determining whether a project’s impacts are significant.”~~
- ~~■ “As with any environmental impact, lead agencies must determine what constitutes a significant impact. In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a “significant impact”, individual lead agencies may undertake a project by project analysis, consistent with available guidance and current CEQA practice.”~~
- ~~■ “The potential effects of a project may be individually limited but cumulatively considerable. Lead agencies should not dismiss a proposed project’s direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence. Documentation of available information and analysis should be provided for any project that may significantly contribute new GHG emissions, either individually or cumulatively, directly or indirectly (e.g., transportation impacts).”~~
- ~~■ “Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and~~

~~mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project.”~~

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

Scientific studies (as best represented by the IPCC's periodic reports) demonstrate that climate change is already occurring due to past GHG emissions. Forecasting of future growth and related GHG emissions under “business as usual (BAU)¹ conditions indicates large increases in those GHG emissions accompanied by an increasing severity of changes in global climate. Thus, the best scientific evidence concludes that global emissions must be reduced below current levels.

On a state level, AB 32 identified that an acceptable level of GHG emissions in California 2020 is 427 million metric tons of CO₂e, which ~~according to the ARB AB-32 Scoping Plan (CARB 2008)~~ is the same as 1990 GHG emissions level, is about ~~15%–11%~~ less than current (480 million metric tons CO₂e in 2004) GHG emissions, and is about 28% less than projected 2020 BAU conditions (596 million metric tons CO₂e). ~~Further, CARB specifically recommended that local municipalities throughout California seek to lower their emissions by 15 percent compared to current levels (CARB 2008).~~

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

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

¹ “Business as usual” (BAU) conditions are defined as population and economic growth in the future using current (2008) building practices and current (2008) regulatory standards/energy consumption averages. For this EIR, reference to BAU conditions are specifically defined as including current mandatory requirements such as Title 24 (Energy Efficiency Standards), current federal vehicle mileage standards (but not California AB1493 vehicle emission standards which are not currently in force due to lack of issuance of a federal waiver), current renewable portfolio standards (RPS, SB 1078/SB107) for California regulated utilities, current County water efficiency requirements, and other existing local and state requirements. BAU conditions presume no improvements in energy efficiency, water efficiency, fuel efficiency beyond that existing today or as required by existing (2008) statute. Specifically, BAU conditions do not include the GHG reduction measures included in the CARB Draft Scoping Plan (June/December 2008) which are not yet fully enacted in statute.

In terms of determining whether GHG emissions in Monterey County will be cumulatively considerable, one has to evaluate whether Monterey County, is doing its part to ensure that California, as a whole, meets the AB 32 target. While there can and likely will be variation in how much reductions each city or county or region can realistically achieve by 2020, on the average, they must all be approximately 2830 percent compared to BAU conditions or 15 percent compared to current conditions.

Thus, the simplest measure of whether Monterey County emissions will contribute considerably to GHG emissions in 2020 is whether they are 1528 % less than BAU current conditions. If they are, Monterey County would not contribute considerably to state or global GHG emissions and related climate change effects. Put another way, if Monterey County emissions are greater than 8572% percent of BAUcurrent GHG emissions, then the emissions of new development allowed by the 2007 GP (along with the ongoing emissions of existing development) would contribute considerably to state and global GHG emissions and related climate change effects.

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

- GHG emissions associated with unincorporated Monterey County (including the GHG emissions of Monterey County government and the GHG emissions in unincorporated part of the County) are greater than 8572 percent of current forecasted BAU GHG emissions.

The 2007 GP requires preparation of a detailed current GHG inventory and GHG forecast for the County for 2020 within 24 months of GP adoption. As discussed below, the recommended goal for the GHG reduction plan required by Policy OS-10.11 is to reduce County GHG emissions by 1528% relative to currentBAU emissions in 2020.

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

Page 4.16-18, under Impact of Development with Policies is revised as follows:

New GHG Emissions from transportation, ~~and~~ direct and indirect energy consumption from residential, commercial, and industrial growth, ~~landfill emissions, offroad equipment, fugitive methane from natural gas pipelines, wineries/ancillary uses in the AWCP, the Coastal Water Project, and changes in carbon stock/sequestration~~ were estimated for the 2030 Planning Horizon for development allowed by the 2007 General Plan and are shown in Table 4.16-3. ~~Emissions associated with land use change were not estimated for the reasons discussed below.~~

Transportation Emissions

New vehicle carbon dioxide emissions will result from new residential, commercial, industrial and public service development. The results of the EMFAC2007 modeling indicate that as of 2030, vehicular traffic within the Monterey County planning area with implementation of the 2007 General Plan (without consideration of City or adjacent County growth) would increase CO₂e emissions by ~~73,000~~ ~~136,000~~ metric tons in 2030. Taking into account the adopted AB 1493 standards for GHG emissions, there could be a reduction of 11% in the carbon dioxide emissions of light duty vehicles and therefore the increased emissions for 2030 would be ~~68,000~~ ~~126,000~~ metric tons instead of ~~73,000~~ ~~136,000~~ tons.

The AB-32 Draft Scoping Plan calls for implementation of AB 1493 standards (commonly called Pavley I) for GHG emissions and a more stringent enhancement named Pavley II, which would result in a reduction in GHG emissions from passenger vehicles of 20% by 2020. In addition, the Scoping Plan includes the implementation of a Low Carbon Fuel Standard that will reduce GHG emissions from passenger vehicles by 10%. The Pavley I and II efforts and Low Carbon Fuel Standard would result in an increase in GHG emissions of ~~49,522~~ ~~109,000~~ metric tons in 2030 instead of ~~73,000~~ ~~136,000~~ tons.

Page 4.16-19. Table 4.16-3 is replaced in full as follows:

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

Source	GHG Emissions (MT CO2e)	% of Total	Notes
<i>Business as Usual Conditions</i>			
Vehicle Emissions	73,093	27%	Based on growth in VMT (2030 factors)
Natural Gas Consumption	26,000	10%	Residential, commercial, and industrial consumption.
Electricity Consumption	24,935	9%	Residential, commercial, and industrial consumption.
Industrial processes	51,230	19%	Based on growth in industrial employment
Landfill Emissions	8,988	3%	Based on growth in population.
Offroad Equipment Use	49,899	18%	Based on OFFROAD model with apportionment.
Fugitive Methane from Nat. Gas Pipelines	1,483	1%	Based on growth in population.
AWCP Wineries and Ancillary Uses	5,327	2%	Building energy only (transportation included above). Assumes all built by 2030.
Coastal Water Project	2,890	0%	Apportioned emissions to County based on population served.
Annualized Stock/Sequestration Loss	26,046	10%	Includes loss in sequestration and average stock loss (2006 - 2030)
Total from New Development 2030	269,891	100%	
Total from New Development 2020	157,436		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,438,776		Assumed no change since 2006.
Total for 2020	1,596,212		
<i>Percent Change relative to 2006</i>		11%	
Total for 2030	1,708,667		

Source	GHG Emissions (MT CO2e)	% of Total	Notes
<i>With AB 1493 vehicle emissions standards and SB 1078, SB 107 RPS requirement of 20% renewable energy</i>			
Vehicle Emissions	67,654	26%	Adjusted for Pavely 1
Natural Gas Consumption	26,000	10%	Not adjusted
Electricity Consumption	22,941	9%	Adjusted for SB 1078/SB 107 (8 percent)
Industrial processes	51,230	20%	Not adjusted for potential improvements in process efficiency.
Landfill Emissions	8,988	3%	Not adjusted for potential improvements in landfill capture.
Offroad Equipment Use	49,899	19%	Not adjusted for equipment efficiency improvement.
Fugitive Methane from Nat. Gas Pipelines	1,483	1%	Not adjusted
AWCP Wineries and Ancillary Uses	4,901	2%	Adjusted for SB 1078/SB 107 (8 percent)
Coastal Water Project	2,659	0%	Adjusted for SB 1078/SB 107 (8 percent)
Annualized Stock/Sequestration Loss	26,046	10%	Not adjusted
Total from New Development 2030	261,799	100%	
Total from New Development 2020	152,716		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,350,859		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development (due to Pavely 1 and SB 1078/SB 107).
Total for 2020	1,503,575		
<i>Percent Change relative to 2006</i>		5%	
<i>Percent of 2020 BAU</i>		94%	
Total for 2030	1,612,658		

Source	GHG Emissions (MT CO ₂ e)	% of Total	Notes
<i>With Pavley II vehicle emissions standards, Governor's Low Carbon Fuel Standard and Draft Scoping Plan RPS goal of 33% renewable energy</i>			
Vehicle Emissions	49,522	22%	Adjusted for AB-32 measures (Pavley 1/2, LCFS, efficiency measures, and HD/MD measures) resulting in 26.8% reduction for transportation emissions
Natural Gas Consumption	23,530	10%	Adjusted for AB-32 measures (Title 24/ Other State Energy Efficiency Improvements) resulting in 9.5% reduction for natural gas sector
Electricity Consumption	15,485	7%	Adjusted for AB-32 measures (RPS goal of 33%, Title 24/Other State Energy Efficiency Improvements, million solar roofs) resulting in total of 32.5% reduction from electricity sector.
Industrial processes	51,230	22%	Not adjusted for potential improvements in process efficiency.
Landfill Emissions	7,819	3%	Adjusted for state measure on landfills (13%)
Offroad Equipment Use	46,306	20%	Adjusted for LCFS (7.2%)
Fugitive Methane from Nat. Gas Pipelines	1,483	1%	Not adjusted
AWCP Wineries and Ancillary Uses	3,899	2%	Adjusted for AB-32 electricity and natural gas measures (26.8%)
Coastal Water Project	2,448	1%	Adjusted for RPS (15.3%)
Annualized Stock/Sequestration Loss	26,046	11%	Not adjusted
Total from New Development 2030	227,769	100%	
Total from New Development 2020	132,865		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,188,613		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development due to AB-32 measures
Total for 2020	1,321,478		
<i>Percent Change relative to 2006</i>		-8%	
<i>Percent of 2020 BAU</i>		83%	
Total for 2030	1,416,381		

Source: See the Technical Supporting Data at the end of this FEIR

Page 4.16-21, under Indirect Electricity GHG Emissions as follows:

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

Taking into account the adopted SB0178/SB107 RPS standards, there could be a reduction of 8% in the GHG emissions related to electricity production by PG&E and thus the increase in indirect GHG emissions would be reduced to 23,000 metric tons. The Scoping Plan calls for an increase in RPS standards to 33%, as well as the million solar roof initiative, and improvements in energy efficiency which would result in a reduction of 32.524% in the GHG emissions related to electricity production by PG&E and thus the increase in indirect GHG emissions would be reduced to 15,000 ~~20,000~~ metric tons.

Page 4.16-21 and 4.16-22 under Emissions Associated with Landfills is revised as follows:

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

Based on population data, there would be an increase of population in the unincorporated County by 27% by 2030 and by 9895% at buildout. Landfill emissions in 2006 were estimated as 33,000 metric tons of CO2e. Thus increased GHG emissions by 2030 due to new growth are estimated to be 9,000 metric tons of CO2e.

Off-Road Equipment Emissions

Off-Road equipment emissions were estimated using the CARB OFFROAD model and apportioned to the unincorporated County area and increased by approximately 57,000 metric tons CO2e per year in 2030 compared to 2006. Offroad equipment for agriculture is included in this total

Page 4.16-22 under Agricultural Emissions is revised as follows:

Agricultural Emissions

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

~~Traffic, electricity demand, and direct energy use for agricultural sector, including the new wineries is taking into account broadly in the calculation of vehicle emissions and of growth in electricity and direct energy use related emissions. Specific process emissions associated with new wineries were not estimated. Although emissions associated with wineries may rise compare to baseline, on a broad scale, with no increase in agricultural~~

~~employment overall, it is expected that overall, there will not be substantial changes on overall agricultural emissions.~~

On-Road Agricultural transportation emissions are included in the overall transportation emissions. Energy-related emissions associated with wineries and ancillary uses in the AWCP were specifically estimated for the new development allowed by the 2007 General Plan and total just over 5,000 metric tons CO2e per year at 2030. Offroad equipment for agriculture is included in the total for offroad equipment.

Fugitive Methane from Natural Gas Pipelines

Fugitive methane emissions associated with natural gas pipelines serving unincorporated areas were estimated by applying a per capita emissions factor from the California inventory to the unincorporated population in 2030. The estimated increase in fugitive methane emissions is 1,500 metric tons CO2e per year at 2030 compared to 2006.

Coastal Water Project

GHG emissions from the proposed Coastal Water Project were added to the inventory given that this project (or an equivalent desalination project) appears reasonably foreseeable to address current water deficits. An estimated 2,890 metric tons of CO2e per year (CPUC 2009) were added to the forecast emissions at 2030

Page 4.16-22 under Emissions Associated with Land Use Changes is revised as follows:

Emissions Associated With Land Use Changes

Development allowed by the 2007 General Plan would result in the conversion of natural vegetation and agricultural lands that would result in the loss of carbon sinks. Although there are Given the uncertainties associated with estimated GHG fluxes associated with natural vegetation and agricultural lands, the potential loss of carbon sinks was net quantified, but would nevertheless contribute GHG emissions along with other sources. Using literature values for the carbon stock and carbon sequestration value for different broad land cover types, and the estimate changes in those land cover types to 2030, a rough approximation was made of the net change in GHG fluxes associated with natural vegetation and agricultural lands. Annualizing the one-time carbon stock losses due to conversions and adding the changes in annual sequestration, land use changes would result in a net increase of 26,000 metric tons of CO2e per year. As discussed below a number of 2007 General Plan policies seek to limit the amount of natural land conversion due to urban growth.

Page 4.16-29, under Significance Determination. The second and third paragraph are revised as follows:

As shown above in Table 4.16-3, GHG emissions in Monterey County under BAU conditions would result in 2020 emissions that are 1140% higher than current (2006) GHG emissions without consideration of currently adopted programs (AB 1493 and SB 1078/SB 107). With consideration of currently adopted programs, County GHG emissions would be 54% lesshigher than current (2006) GHG emissions and would be an estimated 9594% of BAU GHG emissions. This amount exceeds the significance threshold of 8572% of currentBAU GHG emissions.

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

Page 4.16-30. Mitigation Measure CC-1a is revised as follows:

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

Revise Policy OS-10.11 as follows:

OS-10.11 Within 24 months of the adoption of the General Plan, Monterey County shall will develop and adopt a Greenhouse Gas Reduction Plan with a target to reduce emissions by 2020 by 28% relative to estimated “business as usual” 2020 emissions, to a level that is 15% less than 2005 emission levels.

At a minimum the Plan shall:

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

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

Page 4.16-30. Mitigation Measure CC-2 is revised as follows:

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

OS-10.12 Within 24 months of 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 technologies, strategies or their functional equivalent:

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

Page 4.16-31. Mitigation Measure CC-3 is revised to read:

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

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

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

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

The County shall also complete the following:

- Evaluate the feasibility of Community Choice Aggregation (CCA) for the County. CCA allows cities and counties, or groups of them, to aggregate the electric loads of customers within their jurisdictions for purposes of procuring electrical services. CCA allows the community to choose what resources will serve their loads and can significantly increase renewable energy.
- If CCA is ultimately not pursued, the County shall evaluate the feasibility of purchasing renewable energy certificates to reduce the County's contribution to GHG emissions related to County electricity use.

- The County shall develop a ministerial permit process for approval of small-scale wind and solar energy systems for on-site home, small commercial, and farm use.

Page 4.16-32. Mitigation Measure CC-4 is revised to read:

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

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

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

Page 4.16-32. Mitigation Measure CC-5 is revised to read:

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

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

Potential elements of the County Operations GHG Reduction Plan shall include, but are not limited to, the following measures or their technological or functional equivalent; 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 systems; 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.

Page 4.16-33, Significance Conclusion. The second paragraph is revised to read:

As shown above in Table 4.16-3, with consideration of currently adopted programs, County GHG emissions would be 52% higher than current (2006) GHG emissions and would be an estimated 943% of BAU GHG emissions. This amount exceeds the significance threshold of 8572% of current BAU GHG emissions. The GHG reductions associated with full implementation of 2007 General Plan policies and the proposed mitigation have not been quantified but will be quantified during the GHG reduction planning required by Policy OS-10.11. and recommended mitigation,

Page 4.16-34, Transportation Emissions is revised to read:

The results of the modeling indicate that at buildout (assumed to be 2092), under BAU conditions, vehicular traffic in the Monterey County planning area would result in increased CO₂e emissions related to increased VMT would be 331,000 400,000 metric tons at buildout.

Taking into account the proposed Pavley II standards, vehicle efficiency measures and the Low Carbon Fuel Standard, there could be a reduction of 2730% in the carbon dioxide emissions of passenger vehicles compared to BAU. If Pavley II and the Low Carbon Fuel Standard are implemented as part of the ARB Draft Scoping Plan, the increased emissions would be 243,000 320,000 metric tons compared to 331,000 400,000 metric tons under BAU conditions.

Page 4.16-34, Direct Energy Consumption Emissions is revised to read:

New buildings would consume natural gas for heating, cooking, and other processes and other area sources. At buildout, residential, commercial and industrial development allowed by the 2007 General Plan would result in estimated new annual carbon dioxide emissions of 952,000 metric tons.

Page 4.16-35. Table 4.16-4 is replaced in full as follows:

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

Source	GHG Emissions (MT CO ₂ e)	% of Total	Notes
<i>Business as Usual Conditions</i>			
Vehicle Emissions	331,419	34%	Based on growth in VMT (2040 factors)
Natural Gas Consumption	95,289	10%	Residential, commercial, and industrial consumption.
Electricity Consumption	91,040	9%	Residential, commercial, and industrial consumption.
Industrial processes	194,226	20%	Based on growth in industrial employment
Landfill Emissions	32,242	3%	Based on growth in population.
Offroad Equipment Use	178,805	18%	Scaled from 2030 estimate based on growth in population
Fugitive Methane from Nat. Gas Pipelines	5,321	1%	Based on growth in population.
AWCP Wineries and Ancillary Uses	5,327	1%	
Coastal Water Project	2,890	0%	
Annualized Stock/Sequestration Loss	31,882	3%	Includes loss in sequestration and average stock loss (2006 - 2092)
Total from New Development	968,441	100%	
Total from Existing Development	1,438,776		Assumed no change since 2006.
Total	2,407,217		
<i>Percent Change relative to 2006</i>		67%	

Source	GHG Emissions (MT CO ₂ e)	% of Total	Notes
<i>With Pavley II vehicle emissions standards, Governor's Low Carbon Fuel Standard and Draft Scoping Plan RPS goal of 33% renewable energy</i>			
Vehicle Emissions	242,599	30%	Adjusted for AB-32 measures (Pavley 1/2, LCFS, efficiency measures, and HD/MD measures) resulting in 26.8% reduction for transportation emissions
Natural Gas Consumption	86,237	10%	Adjusted for AB-32 measures (Title 24/ Other State Energy Efficiency Improvements) resulting in 9.5% reduction for natural gas sector
Electricity Consumption	61,452	7%	Adjusted for AB-32 measures (RPS goal of 33%, Title 24/Other State Energy Efficiency Improvements, million solar roofs) resulting in total of 32.5% reduction from electricity sector.
Industrial processes	194,226	24%	Not adjusted for potential improvements in process efficiency.
Landfill Emissions	28,051	3%	Adjusted for state measure on landfills (13%)
Offroad Equipment Use	165,931	20%	Adjusted for LCFS (7.2%)
Fugitive Methane from Nat. Gas Pipelines	5,321	1%	Not adjusted
AWCP Wineries and Ancillary Uses	3,899	0%	Adjusted for AB-32 electricity and natural gas measures (26.8%)
Coastal Water Project	2,448	0%	Adjusted for RPS (15.3%)
Annualized Stock/Sequestration Loss	31,882	4%	Not adjusted
Total from New Development	822,045	100%	
Total from Existing Development	1,194,030		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development for Pavely 2, LCFS and RPS goal of 33%.
Total	2,016,075		
<i>Percent Change relative to 2006</i>		40%	

Source: See the Technical Supporting Data at the end of this FEIR

Page 4.16-36, Indirect Electricity GHG Emissions, is revised as follows:

New buildings would also consume electricity. At buildout, residential, commercial and industrial development allowed by the 2007 General Plan would result in estimated increase in annual indirect GHG emissions of 9189,000 metric tons related to electricity under BAU conditions.

Taking into account the proposed 33% RPS standard, the million solar roof program and energy efficiency measures in the AB 32 Draft Scoping Plan, there could be a reduction of 32.524 % in the GHG emissions related to electricity production by PG&E and thus the indirect GHG emissions increase would be further reduced to 671,000 metric tons. It is likely that the carbon intensity of electricity generation 80 years in the future will be far lower than that resultant from full implementation of the AB 32 Scoping Plan 33% RPS standard.

Page 4.16-36, Industrial Emissions, is revised as follows:

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

Off-Road Equipment Emissions

Off-Road equipment emissions were estimated using the CARB OFFROAD model and apportioned to the unincorporated County area and increase by approximately 179,000 metric tons CO₂e per year at buildout compared to 2006. Offroad equipment for agriculture is included in this total

Page 4.16-36, Agricultural Emissions, is revised as follows:

While economic forecasting of agricultural employment was available for the 2030 planning horizon, the amount of expansion or contraction of the agricultural economy over 80 years in the future is unknown. Further, there are substantive uncertainties in estimating GHG emissions associated with diverse agricultural practices and crops. Thus, no estimate of GHG emissions associated with potential agricultural expansion at buildout was prepared. As noted above, agricultural transportation emissions are included in the overall transportation emissions. Energy-related emissions associated with wineries and ancillary uses in the AWCP were specifically estimated for the new development allowed by the 2007 General Plan and assumed to occur by 2030 (~5,000 metric tons of CO₂e). Offroad equipment for agriculture is also included in the emissions estimate and totals approximately 96,000 metric tons (an increase of just over 24,000 metric tons of CO₂e), and is included in the total for offroad equipment.

Fugitive Methane from Natural Gas Pipelines

Fugitive methane emissions associated with natural gas pipelines serving unincorporated areas were estimated by applying a per capita emissions factor from the California inventory to the unincorporated population. The estimated increase in fugitive methane emissions is 5,300 metric tons CO₂e per year compared to 2006.

Coastal Water Project

GHG emissions from the proposed Coastal Water Project were added to the inventory given that this project (or an equivalent desalination project) appears reasonably foreseeable to address current water deficits. An estimated 2,890 metric tons of CO2e per year (CPUC 2009) were added to the forecast emissions.

Page 4.16-36, Emissions Associated with Land Use Changes, is revised as follows:

Development allowed by the 2007 General Plan through buildout would result in the conversion of natural vegetation and agricultural lands that would result in the loss of carbon sinks. Although there are Given the uncertainties associated with estimated GHG fluxes associated with natural vegetation and agricultural lands, the potential loss of carbon sinks was not quantified, but would nevertheless contribute GHG emissions along with other sources. Using literature values for the carbon stock and carbon sequestration value for different broad land cover types, and the estimate changes in those land cover types to buildout, a rough approximation was made of the net change in GHG fluxes associated with natural vegetation and agricultural lands. Annualizing the one-time carbon stock losses due to conversions and adding the changes in annual sequestration, land use changes would result in a net reduction of 32,000 metric tons of CO2e per year. As discussed below a number of 2007 General Plan policies seek to limit the amount of natural land conversion due to urban growth.

Page 4.16-37, Emissions Associated With Waste Processing, is revised as follows:

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

Based on population data, there would be an increase of population in the unincorporated County by 9895% at buildout. Landfill emissions in 2006 were estimated as 33,000 metric tons of CO2e. Thus increased GHG emissions by buildout due to new growth are estimated to be 324,000 metric tons of CO2e.

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

Page 4.16-39, first paragraph under Sea Level Rise. Revise the second sentence, as follows:

Under the higher warming scenario, sea level is anticipated to rise 22 to 35 39 to 55 inches by 2100.

Section 5, “Alternatives to the 2007 General Plan”

Page 5-3. Revise the first full paragraph as follows.

The estimates of new residential development to 2030 under the various alternatives are based on two sources. The 1982 General Plan, GPI, and GPU 4 alternatives' estimates reflect the February 2007 report prepared by Bay Area Economics comparing the effects of those three alternatives in anticipation of placing the GPI on the countywide ballot. The GPU3 estimate is derived from applying the historic residential growth rate (based on AMBAG forecasts) to the available land under that alternative. The TOD estimate is, by the nature of the alternative, the same as the 2007 General Plan. The estimates of residential development presented in Tables 5-1 through 5-5 have been revised since the release of the DEIR to reflect anticipated growth between 2000 and 2030. This provides a simpler comparison between the alternatives and the proposed 2007 General Plan. The comparative impact analyses in Section 5 have been updated to reflect those changes.

Page 5-7, under 5.3.1.1 Development Comparison. Revise Table 5-1 as follows.

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

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

* Difference in projected new dwelling units is based on the difference between the estimated housing units within the unincorporated County from 20002005 to 2030 for the No Project Alternative and from 20002006 to 2030 for the 2007 General Plan.

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

Page 5-13, under 5.3.2.9 Biological Resources. Revise the second paragraph as follows.

In comparison, the proposed 2007 General Plan would not substantially increase the rate of conversion of grazing land to more intensive agricultural uses. , however, the 1982 General Plan Area Plans have more restrictive As modified, the policy policies regarding the conversion of land on steep slopes is more restrictive than that of the 1982 Plan because it prohibits development and conversion of uncultivated land on slopes in excess of 25%, except under special circumstances (as compared to 30% for the 1982 Plan).

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

Page 5-14, under 5.3.2.11 Public Services and Utilities. Revise the first paragraph as follows.

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

Page 5-15, under 5.3.2.12 Parks and Recreation. Revise the second paragraph as follows.

By comparison, the 2007 General Plan includes additional policies, including the establishment of Adequate Public Facilities and Service standards, that will be used to obtain park and recreation facilities along with residential subdivisions and require that Community Area Plans identify adequate park and recreation facility sites. These standards do not, however, establish a specific level of service for parks and recreation facilities as mandated under the Quimby Act (Government Code Section 66477), which weakens their effectiveness. The potential adverse impacts on parks and recreation from the 1982 General Plan would be the same as those of the 2007 General Plan. However, Mitigation Measure PAR-1 in this EIR would require the County to enact a general policy establishing a ratio of parks and recreation land ~~for~~ acreage to population. This would strengthen the ability of the County to continue to exact parks and recreation facilities from subdivision projects and make the impacts of the 2007 General Plan less ~~1982 General Plan greater than those of the project 1982 General Plan.~~

Page 5-18, under 5.4.1.1 Development Comparison. Revise the first paragraph and Table 5-3 as follows.

A comparison of development potential between GPU3 and the 2007 General Plan during the 2030 planning horizon is provided in Table 5-2. In comparison to projected growth under the 2007 General Plan during the planning horizon, implementation of GPU3 would result in 255 more~~3,650 fewer~~ new dwelling units.

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

Category	GPU3	2007 General Plan	Difference* (GPU3 vs. 2007 General Plan)
Residential	13,675 dwelling units	<u>13,420</u> 10,015 dwelling units	<u>255</u> 3,650 more dwelling units

*Difference in projected dwelling units is based on the difference between the estimated housing units within the unincorporated County from 2000~~2005~~ to 2030 for GPU3 and from 2000~~2006~~ to 2030 for the 2007 General Plan.

Source: Association of Monterey Bay Area Governments (2004).

Page 5-19, under 5.4.2 Land Use. Revise the fourth paragraph as follows.

Overall, GPU3 envisions substantially more growth than the 2007 General Plan and proposes to accommodate it through a variety of approaches. In terms of development potential, GPU3 would accommodate 2553,650 more new dwelling units than the 2007 General Plan. While GPU3 does contain a rigorous annexation policy that would address city-county land use conflicts, this would not fully address the land use conflicts created in the unincorporated county because of the number of Rural Communities established. In addition, GPU3-proposed amendments to the coastal zone land use plans have the potential to create land use conflicts with the Local Coastal Program. Therefore, GPU3 would have greater impacts on land use than would the 2007 General Plan.

Page 5-22, under 5.4.2.7 Air Quality. Revise the second paragraph as follows.

GPU3 would allow an estimated 2553,650 more new dwelling units by 2030 than are proposed under the 2007 General Plan. As a result, there would be less traffic congestion once roadways attained LOS C, but potential air quality impacts related to vehicular sources of emission would likely be slightly greater than what would occur under implementation of the 2007 General Plan as a result of more automobiles and presumably more vehicle miles travelled under GPU3. The potential adverse impacts on air quality from GPU3 would be slightly greater than those of the 2007 General Plan, but the difference would be so small that the impacts would be practically the same.

Page 5-22, under 5.4.2.8 Noise. Revise the first sentence in the third paragraph as follows.

GPU3 would allow for 2553,650 more dwelling units by 2030 than the 2007 General Plan.

Page 5-25, under 5.4.2.14 Aesthetics, Light, and Glare. Revise the paragraph as follows.

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

Page 5-25, under 5.4.3 Conclusion. Revise the first paragraph as follows.

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

Page 5-27, under 5.5.1.1 Development Comparison. Revise the first paragraph and Table 5-3 as follows.

A comparison of development potential between GPI and the 2007 General Plan over the 2030 planning horizon is provided in Table 5-3. Development under the GPI would result in approximately 5535,901 more dwelling units than the proposed 2007 General Plan.

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

Category	GPI	2007 General Plan	Difference (GPI vs. 2007 General Plan)
Residential	13,973 dwelling units	<u>13,420</u> 10,015 dwelling units*	<u>5535,901</u> dwelling units

*Difference in projected dwelling units is based on the difference between the estimated housing units within the unincorporated County from 2000~~2005~~ to 2030 for GPU3 and from 2000~~2006~~ to 2030 for the 2007 General Plan.

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

Page 5-29, under 5.5.1.4 Water Resources. Revise the second paragraph as follows.

All of these are significant problems that would also result from development under the 2007 General Plan. While the potential effects of the GPI would be less than those of the 2007 General Plan by virtue of the greater compactness of the urban development contemplated, the GPI lacks many of the comprehensive water resource goals and policies contained in the 2007 General Plan. ~~Moreover, there is greater~~ However, the total development under GPI to the year 2030 than for GP 2007 is similar to that of GPU5, but with significant reliance of providing housing on lots of record throughout the unincorporated area. This would result in ~~greater~~similar impacts to water resources overall although it could be offset by the greater intensity of growth in the few community areas and cities. Taking these factors into consideration, development to the 2030 planning horizon under the GPI would have ~~a slightly greater~~ largely the same impact on water resources ~~than would as~~ the 2007 General Plan.

Page 5-32, under 5.5.1.10, Biological Resources. Revise the first paragraph as follows.

The GPI retains and strengthens the vegetation and wildlife policies contained in the existing 1982 General Plan. The key policies from the GPI's Conservation Element protecting biological resources are the following:

- Policy #22 provides, in part, that "Significant Ecological Areas (SEAs) and the wildlife they support shall be protected against any significant disruption of habitat values and only uses dependent on those resources shall be allowed within SEAs." SEAs are defined in the GPI to include "[a]ny area in which plant or animal life and their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could easily be disturbed or degraded by human activities and developments." The definition lists 29 categories of habitats that are considered SEAs.
- Policy #23 states that, with limited exceptions, "no grading, filling, land clearance or land disturbance, use of a toxic material, timber harvesting, land subdivision, or any other development or construction activity shall take place within any Significant Ecological Area (SEA)." Policy #23 makes an exception where "to prohibit such

activity would make an existing parcel unusable,” and would require consideration of a use permit in any such situation.

- Policy #24 would require all new development, “even when not itself located in a Significant Ecological Area,” to avoid impacts to SEAs. The Policy provides minimum setback requirements from selected SEAs.

The GPI alternative would appear to have stringent protections for biological resources. However, these GPI policies are so restrictive as to be unfeasible to implement. Under Policy #22, uses within the SEAs would be limited to activities that are resource dependent and that do not adversely affect the SEAs. Policy #23 does not provide an adequate exception to this policy because: (1) it would prohibit grant of a use permit when the project could not reduce the impact on an SEA below the level of significance, and (2) it would require meeting all federal and state permits before a County permit could be approved. By establishing a broad definition of SEA, arguably any project that would eliminate habitat or encroach on an SEA could not be mitigated below a level of significance. Consideration of federal and state permits is dependent upon the prior approval of a local permit, which creates a “Catch-22” for development permits. The County is the lead agency for permits under its jurisdiction, such as a use permit, and federal and state regulators will not act on the federal and state approvals necessary to the project until the County has granted approval. Therefore, a project cannot demonstrate that it has met “all applicable federal and state regulations,” and, the County permit cannot be approved.

Policies #22 and #23 would prevent the County from providing sufficient development opportunities to meet the RHNA numbers established for the County’s Housing Element and, as a result, the County would not be able to comply with Housing Element Law. The current AMBAG-assigned RHNA number for the unincorporated County is 1,554 units for the 2009-2014 housing element cycle. This number cannot be reached by essentially halting all residential development outside of the five Community Areas identified in the GPI.

Policy #24 will require substantial minimum setbacks from selected SEAs, including 300 feet from the top of the bank of perennial streams and rivers. This will apply to projects that are not otherwise within SEAs and no provision is made for exceptions to this rule. As a result, there will be properties that cannot be developed due to their proximity to SEAs.

Implementation of these policies would leave the County vulnerable to claims of “regulatory takings” under the Fifth Amendment of the U.S. Constitution. A takings occurs when a regulation eliminates all economic use of the property. In order to avoid a takings claim, the County would be obligated to pay or otherwise provide the property owner just compensation for the affected land.

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

Page 5-33, under 5.5.1.11, Cultural Resources. Revise the second paragraph as follows.

The proposed policies of the 2007 General Plan, by comparison, are more protective of these resources than are the provisions of the GPI. In addition, the GPI results in the development of 553 more housing units by the year 2030 than would GPU5. Therefore, with less protective policies and a slightly greater potential for development, the GPI would have greater impacts on cultural resources as the 2007 General Plan.

Page 5-39. Revise the sixth bullet on this page as follows.

- The proposed 2007 General Plan, as revised, would prohibit development on slopes greater than 25%30%, with limited exceptions. Rather than a grading permit for agricultural conversion on slopes exceeding 25%, as in GPU4, the 2007 General Plan would require approval of a discretionary permit on slopes from 15% to 25% and over 25% with additional restrictionsthe County to develop an Agricultural Permit process. The 2007 General Plan requires approval of a management plan addressing resource issuessets out a list of criteria (i.e., soils, erosion potential and control, water demand and availability, proposed methods of water conservation and water quality protection, and protection of important vegetation and wildlife habitatswater quality and supply, biological resources, cultural resources, erosion control, drainage, and flood hazards) as part of the discretionary permitthat would be weighed to establish whether the agricultural permit might be ministerial.

Page 5-40, under 5.6.1.2 Development Comparison. Revise Table 5-4 as follows.

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

Category	GPU 4	2007 General Plan	Difference (GPU4 vs. 2007 General Plan)
Residential	16,900 dwelling units	<u>13,420</u> <u>10,015</u> dwelling units*	<u>3,480</u> <u>8,828</u> more dwelling units

*Difference in projected dwelling units is based on the difference between the estimated housing units within the unincorporated County from 20002005 to 2030 for GPU3 and from 20002006 to 2030 for the 2007 General Plan.

** Employment is based on the same time periods.

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

Page 5-45. Revise the first paragraph as follows.

Additionally, GPU4 would allow more development on steeper slopes without permits than would the 2007 General Plan, since GPU52007 includes a provision governing restricting development on slopes over 25% through discretionary permits 30% unless there are no other feasible alternatives. Also, the DES under GPU4 would allow approval of projects with environmental impacts whereas the “pass-fail” aspect of the DES under the 2007 General Plan would encourage denial of such projects. Therefore, potential adverse impacts on geology, soils, and seismicity from GPU4 would be greater than those of the 2007 General Plan, but would still be less than significant.

Page 5-53, under 5.7.2 Development Comparison. Revise Table 5-5 as follows.

Table 5-5. Comparison: TOD Alternative and Proposed Project (2030)

Category	TOD Alternative	2007 General Plan	Difference (TOD vs. 2007 General Plan)
Residential	<u>13,420</u> 21,666 dwelling units	<u>13,420</u> 21,666 dwelling units	0 dwelling units
Target housing in Transit Nodes and Corridors (30%)	<u>4,026</u> 6,500 dwelling units		

Page 5-59, under 5.8 Environmentally Superior Alternative. Revise Table 5-6 as follows.

Table 5-6. Summary of 2007 General Plan Alternatives.

Topical Area	2007 General Plan	No Project	GPU3	GPI	GPU4	TOD Alternative
Land Use	Significant	Greater	Greater	Less	Same	Greater
Agriculture Resources	Significant	Greater	Greater	Greater	Greater	Less
Water Resources	Significant	Greater	Same	Greater <ins>Same</ins>	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 <ins>Less</ins>	Less	Greater	Less
Air Quality	Significant	Greater	Greater <ins>Same</ins>	Less	Greater	Less
<u>Greenhouse Gas</u> ¹	<u>Less Than Significant</u>	<u>Greater</u>	<u>Greater</u>	<u>Greater</u> ²	<u>Greater</u>	<u>Same</u>
Noise	<u>Less Than Significant</u> ³	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 <ins>Less</ins> ⁴	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:

1. The 2007 General Plan and the TOD Alternative would include specific requirements for preparation and adoption of a Greenhouse Gas Reduction Plan that will require specific actions to reduce GHG emissions to 1990 levels by the year 2020. None of the other alternatives include that feature.
2. The GPI alternative will have lesser traffic and air quality impacts than the 2007 General Plan. However, it does not contain a requirement for a Greenhouse Gas Reduction Plan and will not undertake a comprehensive program to reduce GHG emissions to 1990 levels by the year 2020. Therefore, it will not meet standards for avoiding a cumulatively considerable contribution to climate change.
3. The DEIR incorrectly listed the noise impact of the 2007 General Plan as "Significant." That has been corrected in the FEIR.
4. This table incorrectly listed the impact of the GPI as the same as the 2007 General Plan. This change is made to match the text of Section 5.

Section 6, “Other CEQA Required Sections”

Page 6-14, before 6.4.3.4 Transportation. Insert the following.

Flood Hazard

As discussed in the significance determinations under Impacts WR-11 and WR-12, there are existing flood hazards within Monterey County. These comprise a significant cumulative effect. As discussed under Impacts WR-11 and WR-12, existing County floodplain regulations (Monterey County Code, Chapter 16.16, as amended October 6, 2009), as well as specific policies under the Safety Element, the Public Services Element, and the Area Plans, will avoid contributions to flood hazard as a result of the 2007 General Plan. Therefore, the 2007 General Plan will not make a considerable contribution to the existing cumulative effect.

Page 6-36. Revise the Air Quality portion of Table 6-2 as follows.

Table 6-2. Significant and Unavoidable Impact Table

Issues/Impacts	Mitigation Measures	Level of Significant after Mitigation
4.7 Air Quality		
Impact AQ-1: Buildout of the 2007 General Plan would conflict with applicable Air Quality Management Plans and Standards.		
Impact AQ-3: Net Change in Ozone Precursor (ROG and NOx) and Particulate Matter.	2030 and 2092 Mitigation CC-2 and CC-3. See these measures under Climate Change, below. AQ-3: Implement MBUAPCD Mitigation Measures for Commercial, Industrial, and Institutional Land Uses AQ-4: Implement MBUAPCD Mitigation Measures for Residential Land Uses AQ-5: Implement MBUAPCD Mitigation Measures for Alternative Fuels	2030 –Significant Unavoidable Impact. Buildout – Significant Unavoidable Impact.

Section 11, “References”

See Chapter 6 of the FEIR.

DEIR Appendix B, “Greenhouse Gas Emissions Inventory and Forecast Methodology”

Page B-1, GHG Inventory Methodology. Insert the following at the end of the first paragraph:

The results of the inventory are included in tables in the Technical Supporting Data section.

Page B-1, Vehicle Emissions. Revise as follows:

Emissions from on-road vehicle use, including heavy duty trucks and buses were quantified using average annual vehicle miles traveled (VMT) for the unincorporated areas of Monterey County. VMT data for 2006 was obtained from the California Department of Transportation (Caltrans) Highway Performance Monitoring System (HPMS) 2006 public road data (California Department of Transportation 2007) for unincorporated County roads and state highways. Modeled average traffic speeds were calculated based on daily VMT and daily vehicle hours of travel data provided by Kimley-Horn Associates ([Kimley-Horn 2008](#)). The ARB emission factor model (EMFAC2007 Version 2.3, hereafter referred to as EMFAC, [CARB 2007a](#)) was used to estimate CO2 and CH4 emissions from vehicle activity in the unincorporated areas of Monterey County for 2006. Default vehicle fleet profile for Monterey County was used in calculating GHG emissions. The temperature and relative humidity selected for modeling were 60°F and 30% respectively. All of the miles on the County roads were included and 25% of the miles on state highways (based on unincorporated County having 25% of the population of the County as a whole).

Page B-1, Table B-1. Revise as follows:

Table B-1. 2006 Electricity and Natural Gas Consumption

Fuel Type	Annual Consumption ¹
Electricity	1,008,090,911 kWh
Natural Gas	35,869,687 therms

¹ Source: [BrusoForney pers. comm.](#)

Page B-2, first paragraph. Revise as follows:

Since PG&E is a member of the California Climate Action Registry, an area-specific carbon dioxide emissions factor of 456 pounds per megawatt hours (lbs/MWh) was available (Bruso pers. comm.). California Climate Action Registry emission factors for CH4 and N2O from electricity consumption were used to estimate emissions of CH4 and N2O from electricity consumption (California Climate Action Registry [20092008](#)). Natural gas combustion GHG emission factors for residential, commercial and industrial natural gas combustion were obtained from The [California Climate Action Registry](#) general reporting protocol ([The California Climate Action Registry 20092008](#)).

Page B-3, before Agricultural Equipment Fuel Use. Make the following additions before the Agricultural Equipment Fuel Use:

Off-Road Equipment Emissions

Offroad equipment emissions were estimated using the CARB OFFROAD model (CARB 2007b) for the year 2006 and apportioned to the unincorporated County area based on assumptions shown in the Technical Supporting Data (in the FEIR). All agricultural, airport ground support, construction, mining, and entertainment offroad equipment emissions were apportioned to the unincorporated area. Emissions from industrial equipment, lawn and garden equipment, light commercial, and recreational equipment were apportioned on a per capita basis.

Fugitive Methane Emissions from Natural Gas Pipelines

Fugitive methane emissions from natural gas pipelines were estimated by identifying the per capita fugitive gas emissions for the state and then apportioning them to unincorporated Monterey County on a per capita basis.

Page B-3, Agricultural Equipment Fuel Use. Delete the following text:

Agricultural Equipment Fuel Use

GHG emissions from agricultural equipment fuel use were estimated using the California Energy Commission (CEC) 2004 GHG inventory and comparing agricultural acreage for California to agricultural acreage in Monterey County. CEC estimates that in 2004, 3.86 million metric tons of CO₂e were emitted as a result of agricultural use of gasoline and diesel (CEC 2006a). The ratio of Monterey County crop acreage to California crop acreage was used to apportion statewide GHG emissions from agricultural fuel use to Monterey County accordingly (United States Department of Agriculture 2006).

Additional GHG emissions from agriculture are related to fertilizer use and methane emissions from livestock. The specific nature of these emissions must be based on detailed inventory of fertilizer type and application and livestock management practices. These emissions are not included in the estimate prepared for this document but will be included in the inventory prepared per Policy OS-10.11.

On an average basis, agricultural and grazing lands in the U.S. are currently considered near neutral on an annual basis with respect to their soil carbon balance (USCCSP 2007) and thus no annual GHG emissions related to changes in soil carbon basis are included in the estimate.

Page B-4, Vehicle Emissions. Revise the third paragraph as follows:

Under the ARB Draft Scoping Plan, AB 1493, Pavley I, and a more stringent fuel efficiency standard, Pavley II, would be implemented by 2020 and would reduce GHG emissions from passenger vehicles by 20% in 2020 (California Air Resources Board 2008a). Furthermore, a Low Carbon Fuel Standard would be required, which would reduce GHG emissions from passenger vehicles by a further 10%. Along with vehicle efficiency measures, the Scoping Plan measures would reduce vehicle emissions by an estimated 27 percent. Other proposed regulations to reduce GHG emissions from heavy-duty vehicles were proposed but are not quantified in this analysis.

Page B-5, Building Natural Gas and Electricity. Revise the last two paragraphs as follows:

The Scoping Plan calls for an increase in RPS standards to 33%, which would result in a reduction of ~~21%~~ in the GHG emissions related to electricity production by PG&E. In addition, ARB Scoping Plan measures, including energy efficiency measures, the million solar roof program would also reduce electricity related emissions (CARB 2008b). The reduced GHG emissions under the Scoping Plan were estimated for 2030 and buildout using the expected ~~32.5%~~21% reduction in GHG emissions per kWh for the combined measures.

The URBEMIS 2007(Version 9.2.4) model was used to estimate natural gas GHG emissions from increased residential, commercial, and industrial buildings in 2030 and at buildout. ~~There are currently no anticipated regulations to reduce GHG emissions from the use of natural gas in buildings.~~ AB-32 energy efficiency measures are estimated to reduce emissions in the future by approximately 9.5% compared to BAU emission levels.

Page B-5, After Landfill Emissions. The following revisions are made following the first sentence under landfill emissions:

Off-Road Equipment Emissions

Offroad equipment emissions were estimated using the CARB OFFROAD model (CARB 2007b) for the year 2030 and apportioned to the unincorporated County area based on assumptions shown in the technical supporting data (in the FEIR). All agricultural, airport ground support, construction, mining, and entertainment offroad equipment emissions were apportioned to the unincorporated area. Emissions from industrial equipment, lawn and garden equipment, light commercial, and recreational equipment were apportioned on a per capita basis.

Agricultural Emissions

Based on trends in agricultural employment (AMBAG 2004; AMBAG 2008), no net expansion in agricultural development is projected for 2030 as virtually no increase in agricultural employment is forecast by AMBAG to 2030 for the Monterey County in the most recent (2008) and the immediately prior (2004) economic forecasts. Thus, no estimate of additional agricultural emissions was made for 2030. For buildout, agricultural conditions are unknown and thus are not estimated.

Onroad agricultural transportation emissions are included in the overall transportation emissions. Energy-related emissions associated with wineries and ancillary uses in the AWCP were specifically estimated using energy factors from literature (Colman and Paster 2007, EIA 2008, California Climate Action Registry 2009) and from URBEMIS. Offroad equipment emissions for agricultural equipment are included in the offroad equipment totals and were estimated using CARB's OFFROAD model (CARB 2007b).

Fugitive Methane from Natural Gas Pipelines

Fugitive methane emissions associated with natural gas pipelines serving unincorporated areas were estimated by applying a per capita emissions factor from the California inventory to the unincorporated population in 2030.

Coastal Water Project

GHG emissions from the proposed Coastal Water Project EIR (CPUC 2009) were added to the inventory given that this project (or an equivalent desalination project) appears reasonably foreseeable to address current water deficits.

Page B-5 and B-6, Emissions Associated with Land Use Changes. This text is revised as follows:

As described in Chapter 4.9, *Biological Resources*, there will be three areas of net land use change by related to the development allowed by the 2007 GP: urban conversion of farmland, urban conversion of natural landcovers, and agricultural conversion of natural landcovers (dominated by annual grassland, with smaller areas of oak woodland and other vegetation communities).

Farmland net carbon balances depend on the cropping and tillage practice. Depending on the tillage practices, farming can sequester soil carbon on an annual basis or can be a net generator of carbon due to losses of soil carbon. On an average basis, agricultural and grazing lands in the U.S. are currently near neutral on an annual basis with respect to their soil carbon balance (USCCP 2007). Thus, conversion of farming land to urban land on average would not be expected to result in a loss of annual net carbon sequestration but could result in the reduction of soil carbon stock due to grading and development activities. ~~As calculation of soil carbon loss is subject to numerous uncertainties at an abstract level, it was not included in the total GHG emission estimated for the EIR. However,~~ Calculation of potential changes in carbon stock due to urban conversion of farmland will be included, as feasible, in the detailed inventory to be prepared pursuant to Policy OS -0-11.

Urban or agricultural conversion of natural landcovers would also result in the loss of the stock carbon in soils, grasses, scrub, and trees as well as the loss of the annual sequestration value of existing soils and vegetation. Where converted to urban losses, the loss in sequestration would be near total. Where converted to agricultural use, the net change in carbon sequestration would depend on the nature of the crops planted and tillage practices compared to the sequestration value of the prior natural landcover. ~~On an average basis, agricultural and grazing lands in the U.S. are currently near neutral on an annual basis with respect to their soil carbon balance. Thus, conversion of farming land to urban land on average would not be expected to result in a loss of annual net carbon sequestration but could result in the reduction of soil carbon stock due to grading and development activities. The net impact of soil erosion on carbon emissions to the atmosphere remains highly uncertain (USCCP 2007). Development is unlikely to result in the entire loss of carbon stocks. As calculation of soil carbon loss is subject to numerous uncertainties at an abstract level, it was not included in the total GHG emission estimated for the EIR. However, calculation of potential changes in carbon stock due to urban conversion of farmland will be included, as feasible, in the detailed inventory to be prepared pursuant to Policy OS 10-11. Calculation of potential changes in carbon stock due to urban or agricultural conversion of natural land covers will be included, as feasible, in the detailed inventory to be prepared pursuant to Policy OS -0-11.~~

In order to make a rough estimate of potential changes in carbon stock and sequestration, literature values for the carbon stock and carbon sequestration value for different broad land cover types were identified (CEC, 2004; Gaman, 2008; Kroodsma and Fields, 2006; USCCCP, 2007). Then the change in those land covers to 2030 or to buildout were identified relative to 2006 based on the analysis in Section 4.9, Biological Resources. For carbon stock, the net change in stock based on land cover was estimated based on the changes in land cover. For carbon sequestration, the annual change in sequestration was estimated based on the changes in land cover. In order to derive an annual number for change in GHG flux, the change in carbon stock was annualized over either a 24-year period (for 2030) or an 86-year period (for buildout).

Page B-7 through B-8, References. The following revisions are made:

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Chapter 5

Changes to the

Draft General Plan Policies

This chapter consists of the proposed General Plan. As discussed in Master Response 1, *Changes to the General Plan* in Chapter 2 of this FEIR, the draft General Plan to be considered by the Planning Commission and Board of Supervisors includes a number of revisions from the “2007 General Plan” (also known as GPU5) that was analyzed by the DEIR in late 2008. The revisions have been analyzed and any changes to the conclusions and text of the EIR have been included in Chapter 4 of this FEIR.

Proposed revisions to the draft 2007 General Plan are shown with strikethrough text for deletions (~~strikethrough~~) and underlined text for additions (underline). Policies that are being deleted in their entirety are shown in strikethrough.

The proposed General Plan is bound separately.

Chapter 6

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Technical Supporting Data

Air Quality EMFAC and Caline4 Model Runs

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	0.636	0.712	0.768	2.266	3.833	2.778	0.771
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Pollutant Name: Carbon Monoxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	10.338	13.510	11.894	25.647	22.739	25.336	12.511
----	--------	--------	--------	--------	--------	--------	--------

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	1.061	1.584	2.156	15.783	18.779	1.205	2.097
----	-------	-------	-------	--------	--------	-------	-------

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	442.151	509.155	708.177	1511.386	2025.789	131.828	539.950
----	---------	---------	---------	----------	----------	---------	---------

Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
23	0.007	0.008	0.013	0.120	0.157	0.003	0.014

Pollutant Name: PM2.5 Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	0.019	0.027	0.032	0.840	0.248	0.028	0.064
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: PM2.5 - Tire Wear Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	0.002	0.002	0.002	0.005	0.002	0.001	0.002
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: PM2.5 - Brake Wear Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	0.005	0.005	0.005	0.008	0.005	0.003	0.006
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: Gasoline - mi/gal Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	19.309	16.518	11.976	10.284	10.484	49.048	17.733
----	--------	--------	--------	--------	--------	--------	--------

Pollutant Name: Diesel - mi/gal Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	27.201	28.679	18.288	5.755	3.387	0.000	12.639
----	--------	--------	--------	-------	-------	-------	--------

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average

Monterey

County Average

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

5	0.305	0.297	0.609	2.145	0.537	1.678	0.483
10	0.469	0.460	0.879	2.487	0.947	1.689	0.670
20	0.776	0.764	1.384	3.162	1.703	1.749	1.023
30	1.052	1.038	1.842	3.823	2.375	1.863	1.345
40	1.297	1.282	2.254	4.470	2.963	2.031	1.637
50	1.513	1.495	2.619	5.104	3.467	2.251	1.899
60	1.684	1.666	2.904	5.543	3.876	2.357	2.102
120	1.965	1.930	3.232	5.900	4.283	2.387	2.386
180	2.004	1.980	3.397	6.324	4.548	2.588	2.472
240	2.121	2.095	3.598	6.741	4.805	2.793	2.621
300	2.235	2.208	3.794	7.151	5.054	2.997	2.766
360	2.345	2.317	3.985	7.553	5.295	3.200	2.907
420	2.453	2.423	4.170	7.949	5.529	3.403	3.044
480	2.557	2.526	4.351	8.338	5.754	3.606	3.178
540	2.657	2.626	4.525	8.720	5.971	3.808	3.308
600	2.755	2.722	4.695	9.095	6.180	4.010	3.435
660	2.849	2.816	4.859	9.463	6.381	4.211	3.558
720	2.940	2.906	5.018	9.824	6.574	4.412	3.677

Pollutant Name: Carbon Monoxide

Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

5	2.667	2.899	6.390	24.174	7.240	6.493	4.810
10	4.127	4.587	9.539	27.178	13.320	5.918	6.620
20	6.876	7.766	15.471	33.038	24.720	4.919	10.047
30	9.399	10.681	20.918	38.701	35.102	4.123	13.215
40	11.695	13.333	25.879	44.168	44.467	3.530	16.122
50	13.765	15.720	30.354	49.438	52.816	3.139	18.770
60	15.609	17.843	34.344	54.512	60.148	2.951	21.159
120	20.495	22.996	42.056	70.680	70.953	5.880	27.282

180	20.130	22.821	43.585	79.636	73.322	8.326	27.909
240	21.093	23.879	45.757	87.879	75.726	10.561	29.597
300	22.022	24.902	47.849	95.410	78.165	12.539	31.193
360	22.917	25.891	49.862	102.227	80.639	14.259	32.695
420	23.778	26.844	51.795	108.331	83.148	15.721	34.105
480	24.605	27.763	53.648	113.723	85.692	16.926	35.422
540	25.398	28.648	55.423	118.402	88.270	17.873	36.646
600	26.157	29.498	57.117	122.367	90.884	18.562	37.777
660	26.883	30.313	58.732	125.620	93.533	18.994	38.816
720	27.574	31.094	60.268	128.160	96.216	19.168	39.761

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.321	0.424	0.833	1.396	1.630	0.242	0.489
10	0.438	0.574	1.218	1.992	2.451	0.265	0.680
20	0.643	0.839	1.895	3.042	3.892	0.308	1.017
30	0.811	1.056	2.448	3.899	5.067	0.344	1.292
40	0.941	1.224	2.875	4.564	5.975	0.375	1.505
50	1.034	1.345	3.178	5.036	6.616	0.399	1.657
60	1.090	1.417	3.356	5.317	6.991	0.418	1.748
120	1.103	1.436	3.381	5.353	7.036	0.421	1.766
180	1.102	1.435	3.370	5.324	7.010	0.412	1.761
240	1.093	1.425	3.349	5.283	6.970	0.399	1.748
300	1.082	1.411	3.320	5.228	6.916	0.383	1.731
360	1.068	1.393	3.285	5.161	6.849	0.364	1.710
420	1.051	1.372	3.242	5.080	6.767	0.342	1.684
480	1.031	1.346	3.191	4.987	6.672	0.317	1.653
540	1.008	1.318	3.134	4.881	6.563	0.289	1.618
600	0.983	1.285	3.069	4.761	6.441	0.257	1.579
660	0.954	1.249	2.998	4.629	6.305	0.223	1.536
720	0.923	1.209	2.918	4.484	6.154	0.185	1.488

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	10.532	11.748	18.491	35.546	5.886	29.503	13.770
10	15.029	16.610	26.581	41.737	9.995	32.161	18.861
20	24.017	26.367	42.644	53.898	18.138	37.327	29.019
30	32.995	36.168	58.547	65.768	26.181	42.293	39.149
40	41.964	46.013	74.293	77.345	34.123	47.058	49.250
50	50.923	55.901	89.880	88.630	41.964	51.622	59.322
60	59.873	65.833	105.309	99.622	49.705	55.986	69.364
120	102.689	114.949	175.007	148.879	83.310	76.409	117.288
180	118.549	132.718	201.772	161.433	97.560	77.042	134.505
240	133.584	149.608	227.027	173.249	110.969	77.642	150.825

300	147.794	165.621	250.773	184.327	123.537	78.208	166.246
360	161.180	180.755	273.009	194.669	135.265	78.739	180.770
420	173.740	195.012	293.735	204.273	146.152	79.237	194.396
480	185.476	208.390	312.952	213.140	156.197	79.701	207.124
540	196.387	220.890	330.659	221.270	165.402	80.130	218.954
600	206.473	232.511	346.857	228.663	173.766	80.526	229.886
660	215.734	243.255	361.545	235.319	181.290	80.887	239.921
720	224.171	253.121	374.723	241.237	187.972	81.215	249.057

Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.001	0.000	0.001	0.000
10	0.000	0.000	0.001	0.001	0.000	0.001	0.000
20	0.001	0.001	0.001	0.002	0.001	0.001	0.001
30	0.001	0.001	0.001	0.002	0.001	0.001	0.001
40	0.001	0.001	0.002	0.002	0.002	0.001	0.001
50	0.001	0.001	0.002	0.003	0.002	0.001	0.001
60	0.001	0.001	0.002	0.003	0.002	0.001	0.002
120	0.002	0.002	0.004	0.004	0.003	0.001	0.002
180	0.002	0.002	0.004	0.004	0.003	0.001	0.003
240	0.002	0.003	0.004	0.005	0.003	0.001	0.003
300	0.003	0.003	0.005	0.005	0.004	0.002	0.003
360	0.003	0.003	0.005	0.005	0.004	0.002	0.003
420	0.003	0.003	0.005	0.006	0.004	0.002	0.004
480	0.003	0.004	0.006	0.006	0.004	0.002	0.004
540	0.003	0.004	0.006	0.006	0.005	0.002	0.004
600	0.004	0.004	0.006	0.006	0.005	0.002	0.004
660	0.004	0.004	0.007	0.007	0.005	0.002	0.004
720	0.004	0.004	0.007	0.007	0.005	0.002	0.005

Pollutant Name: PM2.5 Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.002	0.002	0.002	0.001	0.014	0.002
10	0.002	0.003	0.003	0.003	0.001	0.012	0.002
20	0.004	0.005	0.005	0.003	0.003	0.009	0.004
30	0.005	0.007	0.007	0.004	0.004	0.007	0.006
40	0.006	0.009	0.008	0.004	0.005	0.005	0.007
50	0.008	0.010	0.010	0.005	0.006	0.004	0.009
60	0.009	0.012	0.011	0.006	0.007	0.003	0.010
120	0.012	0.016	0.016	0.008	0.009	0.009	0.014
180	0.013	0.017	0.016	0.009	0.009	0.014	0.014
240	0.013	0.018	0.017	0.010	0.010	0.018	0.015
300	0.014	0.018	0.017	0.010	0.010	0.022	0.015
360	0.014	0.019	0.018	0.011	0.010	0.026	0.016

420	0.015	0.020	0.019	0.012	0.011	0.029	0.017
480	0.015	0.020	0.019	0.012	0.011	0.031	0.017
540	0.016	0.021	0.020	0.013	0.011	0.033	0.018
600	0.016	0.022	0.021	0.013	0.012	0.034	0.018
660	0.016	0.022	0.021	0.013	0.012	0.035	0.019
720	0.017	0.023	0.022	0.014	0.012	0.035	0.019

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

5	0.119	0.108	0.073	0.052	0.079	0.356	0.107
10	0.220	0.200	0.135	0.096	0.146	0.657	0.197
20	0.377	0.343	0.232	0.164	0.250	1.120	0.338
30	0.486	0.443	0.301	0.210	0.321	1.438	0.437
40	0.528	0.482	0.328	0.228	0.348	1.555	0.475

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.237 0.220 0.132 0.015 0.005 0.390 0.220

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Year: 2050

Season : Summer
Area : Monterey

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.019 0.017 0.011 0.001 0.002 0.026 0.017

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Season : Summer
Area : Monterey

Area : Nickerby

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.092 0.087 0.049 0.007 0.002 0.166 0.086

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.007 0.007 0.004 0.000 0.001 0.011 0.007

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.494	0.384	0.067	0.050	0.002	0.005	1.000
%TRIP	0.481	0.338	0.097	0.078	0.000	0.005	1.000
%VEH	0.525	0.366	0.058	0.031	0.000	0.018	1.000

Title : 2000 PM 2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

1	0.114	0.322	0.212	0.217	0.375	0.472	0.208
2	0.122	0.191	0.128	0.138	0.216	0.496	0.152
3	0.129	0.150	0.102	0.115	0.163	0.508	0.136
4	0.133	0.130	0.090	0.103	0.137	0.516	0.130
5	0.136	0.119	0.083	0.096	0.122	0.523	0.126
10	0.142	0.103	0.075	0.084	0.095	0.546	0.121
15	0.143	0.104	0.079	0.079	0.090	0.558	0.123
20	0.144	0.108	0.084	0.076	0.089	0.568	0.125
25	0.144	0.111	0.088	0.074	0.088	0.577	0.126
30	0.141	0.107	0.085	0.073	0.086	0.564	0.123
35	0.137	0.103	0.082	0.071	0.083	0.552	0.119
40	0.134	0.100	0.079	0.069	0.081	0.540	0.116
45	0.131	0.096	0.076	0.068	0.078	0.529	0.113
50	0.125	0.092	0.073	0.066	0.076	0.507	0.108

55	0.117	0.089	0.071	0.064	0.073	0.481	0.102
60	0.111	0.085	0.068	0.063	0.071	0.459	0.097

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	0.636	0.712	0.768	2.266	3.833	2.778	0.771
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: Carbon Monoxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	10.338	13.510	11.894	25.647	22.739	25.336	12.511
----	--------	--------	--------	--------	--------	--------	--------

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	1.061	1.584	2.156	15.783	18.779	1.205	2.097
----	-------	-------	-------	--------	--------	-------	-------

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23 442.151 509.155 708.177 1511.386 2025.789 131.828 539.950

Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.007 0.008 0.013 0.120 0.157 0.003 0.014

Pollutant Name: PM10 Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.020 0.029 0.034 0.913 0.270 0.037 0.070

Pollutant Name: PM10 - Tire Wear Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.008 0.008 0.009 0.021 0.010 0.004 0.009

Pollutant Name: PM10 - Brake Wear Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.013 0.013 0.013 0.019 0.013 0.006 0.013

Pollutant Name: Gasoline - mi/gal Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 19.309 16.518 11.976 10.284 10.484 49.048 17.733

Pollutant Name: Diesel - mi/gal Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 27.201 28.679 18.288 5.755 3.387 0.000 12.639

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.305	0.297	0.609	2.145	0.537	1.678	0.483
10	0.469	0.460	0.879	2.487	0.947	1.689	0.670
20	0.776	0.764	1.384	3.162	1.703	1.749	1.023
30	1.052	1.038	1.842	3.823	2.375	1.863	1.345
40	1.297	1.282	2.254	4.470	2.963	2.031	1.637
50	1.513	1.495	2.619	5.104	3.467	2.251	1.899
60	1.684	1.666	2.904	5.543	3.876	2.357	2.102
120	1.965	1.930	3.232	5.900	4.283	2.387	2.386
180	2.004	1.980	3.397	6.324	4.548	2.588	2.472
240	2.121	2.095	3.598	6.741	4.805	2.793	2.621
300	2.235	2.208	3.794	7.151	5.054	2.997	2.766
360	2.345	2.317	3.985	7.553	5.295	3.200	2.907
420	2.453	2.423	4.170	7.949	5.529	3.403	3.044
480	2.557	2.526	4.351	8.338	5.754	3.606	3.178
540	2.657	2.626	4.525	8.720	5.971	3.808	3.308
600	2.755	2.722	4.695	9.095	6.180	4.010	3.435
660	2.849	2.816	4.859	9.463	6.381	4.211	3.558
720	2.940	2.906	5.018	9.824	6.574	4.412	3.677

Pollutant Name: Carbon Monoxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-------------	-----	-----	-----	-----	------	-----	-----

5	2.667	2.899	6.390	24.174	7.240	6.493	4.810
10	4.127	4.587	9.539	27.178	13.320	5.918	6.620
20	6.876	7.766	15.471	33.038	24.720	4.919	10.047
30	9.399	10.681	20.918	38.701	35.102	4.123	13.215
40	11.695	13.333	25.879	44.168	44.467	3.530	16.122
50	13.765	15.720	30.354	49.438	52.816	3.139	18.770
60	15.609	17.843	34.344	54.512	60.148	2.951	21.159
120	20.495	22.996	42.056	70.680	70.953	5.880	27.282
180	20.130	22.821	43.585	79.636	73.322	8.326	27.909
240	21.093	23.879	45.757	87.879	75.726	10.561	29.597
300	22.022	24.902	47.849	95.410	78.165	12.539	31.193
360	22.917	25.891	49.862	102.227	80.639	14.259	32.695
420	23.778	26.844	51.795	108.331	83.148	15.721	34.105
480	24.605	27.763	53.648	113.723	85.692	16.926	35.422
540	25.398	28.648	55.423	118.402	88.270	17.873	36.646
600	26.157	29.498	57.117	122.367	90.884	18.562	37.777
660	26.883	30.313	58.732	125.620	93.533	18.994	38.816
720	27.574	31.094	60.268	128.160	96.216	19.168	39.761

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: ALL

Time
min LDA LDT MDT HDT UBUS MCY ALL

5	0.321	0.424	0.833	1.396	1.630	0.242	0.489
10	0.438	0.574	1.218	1.992	2.451	0.265	0.680
20	0.643	0.839	1.895	3.042	3.892	0.308	1.017
30	0.811	1.056	2.448	3.899	5.067	0.344	1.292
40	0.941	1.224	2.875	4.564	5.975	0.375	1.505
50	1.034	1.345	3.178	5.036	6.616	0.399	1.657
60	1.090	1.417	3.356	5.317	6.991	0.418	1.748
120	1.103	1.436	3.381	5.353	7.036	0.421	1.766
180	1.102	1.435	3.370	5.324	7.010	0.412	1.761
240	1.093	1.425	3.349	5.283	6.970	0.399	1.748
300	1.082	1.411	3.320	5.228	6.916	0.383	1.731
360	1.068	1.393	3.285	5.161	6.849	0.364	1.710
420	1.051	1.372	3.242	5.080	6.767	0.342	1.684
480	1.031	1.346	3.191	4.987	6.672	0.317	1.653
540	1.008	1.318	3.134	4.881	6.563	0.289	1.618
600	0.983	1.285	3.069	4.761	6.441	0.257	1.579
660	0.954	1.249	2.998	4.629	6.305	0.223	1.536
720	0.923	1.209	2.918	4.484	6.154	0.185	1.488

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: ALL

Time
min LDA LDT MDT HDT UBUS MCY ALL

5	10.532	11.748	18.491	35.546	5.886	29.503	13.770
10	15.029	16.610	26.581	41.737	9.995	32.161	18.861

20	24.017	26.367	42.644	53.898	18.138	37.327	29.019
30	32.995	36.168	58.547	65.768	26.181	42.293	39.149
40	41.964	46.013	74.293	77.345	34.123	47.058	49.250
50	50.923	55.901	89.880	88.630	41.964	51.622	59.322
60	59.873	65.833	105.309	99.622	49.705	55.986	69.364
120	102.689	114.949	175.007	148.879	83.310	76.409	117.288
180	118.549	132.718	201.772	161.433	97.560	77.042	134.505
240	133.584	149.608	227.027	173.249	110.969	77.642	150.825
300	147.794	165.621	250.773	184.327	123.537	78.208	166.246
360	161.180	180.755	273.009	194.669	135.265	78.739	180.770
420	173.740	195.012	293.735	204.273	146.152	79.237	194.396
480	185.476	208.390	312.952	213.140	156.197	79.701	207.124
540	196.387	220.890	330.659	221.270	165.402	80.130	218.954
600	206.473	232.511	346.857	228.663	173.766	80.526	229.886
660	215.734	243.255	361.545	235.319	181.290	80.887	239.921
720	224.171	253.121	374.723	241.237	187.972	81.215	249.057

Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.001	0.000	0.001	0.000
10	0.000	0.000	0.001	0.001	0.000	0.001	0.000
20	0.001	0.001	0.001	0.002	0.001	0.001	0.001
30	0.001	0.001	0.001	0.002	0.001	0.001	0.001
40	0.001	0.001	0.002	0.002	0.002	0.001	0.001
50	0.001	0.001	0.002	0.003	0.002	0.001	0.001
60	0.001	0.001	0.002	0.003	0.002	0.001	0.002
120	0.002	0.002	0.004	0.004	0.003	0.001	0.002
180	0.002	0.002	0.004	0.004	0.003	0.001	0.003
240	0.002	0.003	0.004	0.005	0.003	0.001	0.003
300	0.003	0.003	0.005	0.005	0.004	0.002	0.003
360	0.003	0.003	0.005	0.005	0.004	0.002	0.003
420	0.003	0.003	0.005	0.006	0.004	0.002	0.004
480	0.003	0.004	0.006	0.006	0.004	0.002	0.004
540	0.003	0.004	0.006	0.006	0.005	0.002	0.004
600	0.004	0.004	0.006	0.006	0.005	0.002	0.004
660	0.004	0.004	0.007	0.007	0.005	0.002	0.004
720	0.004	0.004	0.007	0.007	0.005	0.002	0.005

Pollutant Name: PM10 Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.002	0.002	0.003	0.001	0.018	0.002
10	0.002	0.003	0.003	0.003	0.002	0.016	0.003
20	0.004	0.005	0.005	0.004	0.003	0.012	0.005
30	0.006	0.008	0.007	0.004	0.004	0.009	0.006

40	0.007	0.009	0.009	0.005	0.005	0.007	0.008
50	0.008	0.011	0.011	0.006	0.006	0.005	0.009
60	0.009	0.013	0.012	0.006	0.007	0.004	0.010
120	0.013	0.018	0.017	0.009	0.010	0.012	0.015
180	0.014	0.018	0.018	0.010	0.010	0.018	0.015
240	0.014	0.019	0.018	0.011	0.010	0.024	0.016
300	0.015	0.020	0.019	0.012	0.011	0.030	0.017
360	0.015	0.021	0.020	0.013	0.011	0.034	0.017
420	0.016	0.021	0.020	0.013	0.011	0.038	0.018
480	0.016	0.022	0.021	0.014	0.012	0.041	0.019
540	0.017	0.023	0.022	0.014	0.012	0.043	0.019
600	0.017	0.023	0.022	0.015	0.012	0.045	0.020
660	0.018	0.024	0.023	0.015	0.013	0.046	0.020
720	0.018	0.025	0.024	0.016	0.013	0.046	0.021

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average

Monterey

County Average

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

5	0.119	0.108	0.073	0.052	0.079	0.356	0.107
10	0.220	0.200	0.135	0.096	0.146	0.657	0.197
20	0.377	0.343	0.232	0.164	0.250	1.120	0.338
30	0.486	0.443	0.301	0.210	0.321	1.438	0.437
40	0.528	0.482	0.328	0.228	0.348	1.555	0.475

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.237 0.220 0.132 0.015 0.005 0.390 0.220

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer
Emissions: 2007 Emission Factor -- V2.2 N. 1-200-6

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
1 - E

degF LDA LDT MDT HDT UBUS MCY ALL

71 0.019 0.017 0.011 0.001 0.002 0.026 0.017

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.092 0.087 0.049 0.007 0.002 0.166 0.086

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer
Emissions: 2007 Emissions Factor -- V2.3 NHTSA 2006

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
1 F

degF LDA LDT MDT HDT UBUS MCY ALL

71 0.007 0.007 0.004 0.000 0.001 0.011 0.007

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

LDA LDT MDT HDT UBUS MCY ALL

% VMT	0.494	0.384	0.067	0.050	0.002	0.005	1.000
% TRIP	0.481	0.338	0.097	0.078	0.000	0.005	1.000
% VEH	0.525	0.366	0.058	0.031	0.000	0.018	1.000

Title : 2000 PM 10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:27:47

Scen Year: 2000 -- All model years in the range 1965 to 2000 selected

Season : Summer

Area : Monterey

Year: 2000 -- Model Years 1965 to 2000 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

1	0.114	0.322	0.212	0.217	0.375	0.472	0.208
2	0.122	0.191	0.128	0.138	0.216	0.496	0.152
3	0.129	0.150	0.102	0.115	0.163	0.508	0.136
4	0.133	0.130	0.090	0.103	0.137	0.516	0.130
5	0.136	0.119	0.083	0.096	0.122	0.523	0.126
10	0.142	0.103	0.075	0.084	0.095	0.546	0.121

15	0.143	0.104	0.079	0.079	0.090	0.558	0.123
20	0.144	0.108	0.084	0.076	0.089	0.568	0.125
25	0.144	0.111	0.088	0.074	0.088	0.577	0.126
30	0.141	0.107	0.085	0.073	0.086	0.564	0.123
35	0.137	0.103	0.082	0.071	0.083	0.552	0.119
40	0.134	0.100	0.079	0.069	0.081	0.540	0.116
45	0.131	0.096	0.076	0.068	0.078	0.529	0.113
50	0.125	0.092	0.073	0.066	0.076	0.507	0.108
55	0.117	0.089	0.071	0.064	0.073	0.481	0.102
60	0.111	0.085	0.068	0.063	0.071	0.459	0.097

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	0.017	0.036	0.043	0.282	1.057	2.121	0.065
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: Carbon Monoxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	0.788	1.498	1.617	2.192	13.169	14.771	1.385
----	-------	-------	-------	-------	--------	--------	-------

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	0.062	0.148	0.242	2.366	6.039	1.114	0.259
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

23	401.161	511.595	698.856	1606.810	1611.961	158.978	541.363
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Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: 30%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
23	0.004	0.005	0.007	0.015	0.016	0.002	0.005

Pollutant Name: PM2.5 Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	0.017	0.033	0.039	0.144	0.049	0.012	0.032
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: PM2.5 - Tire Wear Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	0.002	0.002	0.002	0.005	0.002	0.001	0.002
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: PM2.5 - Brake Wear Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	0.005	0.005	0.005	0.008	0.005	0.003	0.005
----	-------	-------	-------	-------	-------	-------	-------

Pollutant Name: Gasoline - mi/gal Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	22.017	17.225	12.428	11.730	11.098	46.842	19.234
----	--------	--------	--------	--------	--------	--------	--------

Pollutant Name: Diesel - mi/gal Temperature: 71F Relative Humidity: 30%

Speed
MPH LDA LDT MDT HDT UBUS MCY ALL

23	29.156	29.156	19.479	5.872	4.297	0.000	8.035
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Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average

Monterey

County Average

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

5	0.007	0.013	0.033	0.081	0.451	0.638	0.025
10	0.013	0.026	0.066	0.157	0.879	0.789	0.045
20	0.026	0.049	0.128	0.298	1.666	1.079	0.082
30	0.038	0.071	0.188	0.422	2.362	1.352	0.116
40	0.048	0.091	0.244	0.530	2.966	1.609	0.147
50	0.058	0.110	0.297	0.621	3.479	1.850	0.175
60	0.066	0.126	0.347	0.696	3.900	2.026	0.200
120	0.099	0.188	0.571	0.796	4.458	2.312	0.283
180	0.099	0.188	0.576	0.845	4.730	2.365	0.288
240	0.105	0.199	0.612	0.892	4.994	2.515	0.305
300	0.110	0.211	0.649	0.937	5.249	2.661	0.323
360	0.116	0.222	0.685	0.981	5.495	2.803	0.339
420	0.122	0.233	0.720	1.024	5.733	2.943	0.356
480	0.128	0.244	0.756	1.064	5.962	3.080	0.373
540	0.133	0.255	0.791	1.104	6.182	3.214	0.389
600	0.139	0.265	0.826	1.142	6.394	3.344	0.405
660	0.144	0.276	0.861	1.178	6.597	3.472	0.420
720	0.150	0.286	0.896	1.213	6.791	3.596	0.436

Pollutant Name: Carbon Monoxide

Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

5	0.100	0.189	0.420	1.092	5.577	2.977	0.286
10	0.198	0.372	0.830	2.140	10.928	3.579	0.541
20	0.386	0.723	1.621	4.102	20.949	4.732	1.026
30	0.563	1.053	2.373	5.887	30.064	5.817	1.480
40	0.729	1.363	3.086	7.494	38.273	6.836	1.902
50	0.884	1.652	3.760	8.923	45.575	7.788	2.292
60	1.029	1.919	4.395	10.176	51.971	8.672	2.651
120	1.600	2.938	6.989	12.271	62.671	12.340	3.859

180	1.553	2.856	6.891	12.630	64.504	12.241	3.821
240	1.675	3.073	7.491	13.000	66.396	13.259	4.083
300	1.784	3.266	8.019	13.383	68.349	14.202	4.320
360	1.879	3.436	8.476	13.777	70.362	15.068	4.532
420	1.961	3.582	8.862	14.183	72.436	15.857	4.718
480	2.029	3.706	9.176	14.601	74.570	16.570	4.879
540	2.083	3.806	9.419	15.030	76.764	17.206	5.014
600	2.124	3.882	9.590	15.472	79.019	17.766	5.124
660	2.151	3.936	9.690	15.925	81.334	18.250	5.208
720	2.165	3.966	9.719	16.390	83.709	18.657	5.267

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.052	0.122	0.656	0.309	2.327	0.155	0.199
10	0.056	0.132	0.687	0.465	3.506	0.195	0.222
20	0.064	0.149	0.745	0.740	5.577	0.265	0.261
30	0.070	0.163	0.795	0.964	7.265	0.323	0.295
40	0.075	0.175	0.838	1.137	8.569	0.369	0.321
50	0.079	0.184	0.873	1.259	9.490	0.403	0.341
60	0.081	0.191	0.900	1.330	10.027	0.424	0.355
120	0.088	0.205	0.982	1.339	10.092	0.426	0.377
180	0.088	0.206	0.982	1.334	10.055	0.423	0.377
240	0.087	0.204	0.974	1.326	9.998	0.416	0.374
300	0.086	0.202	0.962	1.316	9.922	0.408	0.370
360	0.085	0.199	0.944	1.304	9.826	0.398	0.364
420	0.083	0.194	0.922	1.288	9.711	0.387	0.357
480	0.081	0.189	0.895	1.270	9.576	0.373	0.348
540	0.078	0.183	0.863	1.250	9.421	0.358	0.338
600	0.075	0.176	0.826	1.227	9.247	0.342	0.326
660	0.072	0.168	0.785	1.201	9.053	0.323	0.313
720	0.068	0.159	0.738	1.173	8.840	0.303	0.298

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	11.948	15.057	21.481	2.866	4.388	13.286	13.932
10	13.423	16.990	24.260	5.717	8.753	15.484	15.886
20	16.862	21.466	30.690	11.370	17.408	19.799	20.344
30	20.952	26.756	38.280	16.959	25.967	24.007	25.533
40	25.694	32.862	47.031	22.485	34.428	28.107	31.454
50	31.088	39.782	56.942	27.948	42.792	32.101	38.106
60	37.134	47.518	68.013	33.347	51.059	35.986	45.490
120	86.449	110.006	157.265	56.718	86.843	53.440	103.678
180	98.137	124.957	178.663	67.008	102.598	57.674	117.908
240	109.805	139.864	199.992	76.691	117.424	61.659	132.055

300	121.452	154.727	221.253	85.766	131.319	65.396	146.120
360	133.078	169.545	242.446	94.234	144.285	68.885	160.103
420	144.683	184.320	263.570	102.095	156.321	72.125	174.005
480	156.267	199.050	284.625	109.349	167.426	75.117	187.824
540	167.830	213.737	305.612	115.995	177.602	77.860	201.561
600	179.372	228.379	326.531	122.033	186.848	80.354	215.217
660	190.893	242.977	347.381	127.465	195.164	82.600	228.790
720	202.393	257.531	368.163	132.289	202.550	84.598	242.281

Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.001	0.000	0.000
30	0.000	0.000	0.000	0.000	0.001	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.002	0.001	0.001
180	0.001	0.001	0.002	0.001	0.002	0.001	0.001
240	0.001	0.001	0.002	0.001	0.002	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.001
360	0.001	0.002	0.002	0.001	0.003	0.001	0.002
420	0.001	0.002	0.003	0.001	0.003	0.001	0.002
480	0.002	0.002	0.003	0.001	0.003	0.001	0.002
540	0.002	0.002	0.003	0.001	0.003	0.001	0.002
600	0.002	0.002	0.003	0.001	0.003	0.001	0.002
660	0.002	0.002	0.004	0.001	0.003	0.001	0.002
720	0.002	0.003	0.004	0.002	0.003	0.001	0.002

Pollutant Name: PM2.5 Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.001	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.002
20	0.002	0.004	0.004	0.002	0.003	0.004	0.003
30	0.003	0.006	0.006	0.002	0.004	0.003	0.005
40	0.004	0.008	0.008	0.003	0.005	0.003	0.006
50	0.005	0.010	0.009	0.003	0.006	0.002	0.007
60	0.006	0.011	0.011	0.004	0.007	0.002	0.009
120	0.010	0.019	0.018	0.005	0.009	0.005	0.014
180	0.012	0.021	0.020	0.006	0.010	0.007	0.015
240	0.013	0.023	0.022	0.006	0.010	0.008	0.017
300	0.014	0.024	0.024	0.006	0.010	0.010	0.018
360	0.014	0.026	0.025	0.006	0.011	0.011	0.019

420	0.015	0.027	0.026	0.006	0.011	0.012	0.020
480	0.016	0.028	0.027	0.006	0.011	0.013	0.021
540	0.016	0.029	0.028	0.007	0.012	0.014	0.021
600	0.016	0.029	0.028	0.007	0.012	0.014	0.022
660	0.016	0.029	0.029	0.007	0.012	0.015	0.022
720	0.016	0.029	0.029	0.007	0.013	0.015	0.022

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
-----	-----	-----	-----	-----	------	-----	-----

5	0.025	0.042	0.028	0.003	0.036	0.087	0.030
10	0.046	0.077	0.052	0.006	0.066	0.162	0.055
20	0.079	0.132	0.089	0.010	0.112	0.280	0.094
30	0.101	0.169	0.114	0.013	0.144	0.364	0.121
40	0.110	0.183	0.124	0.014	0.155	0.396	0.131

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.029 0.062 0.055 0.001 0.003 0.246 0.050

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Season : Summer
Area : Monterey

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.002 0.005 0.004 0.000 0.001 0.023 0.004

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Season : Summer

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.017 0.039 0.040 0.001 0.001 0.090 0.030

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.001 0.003 0.003 0.000 0.000 0.009 0.002

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

County Average

Monterey

County Average

Table 7: Estimated Travel Fractions

Pollutant Name:

Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.454	0.360	0.120	0.055	0.001	0.011	1.000
%TRIP	0.427	0.316	0.173	0.073	0.000	0.010	1.000
%VEH	0.468	0.354	0.115	0.028	0.000	0.034	1.000

Title : 2030 PM2.5

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average

Monterey

County Average

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

1	0.010	0.258	0.217	0.049	0.613	0.004	0.127
2	0.008	0.130	0.110	0.025	0.305	0.036	0.066
3	0.009	0.090	0.077	0.018	0.204	0.052	0.047
4	0.010	0.071	0.062	0.014	0.155	0.061	0.039
5	0.012	0.060	0.053	0.012	0.125	0.067	0.035
10	0.014	0.039	0.036	0.008	0.069	0.075	0.026
15	0.014	0.032	0.030	0.007	0.052	0.075	0.023
20	0.014	0.029	0.028	0.006	0.044	0.073	0.022
25	0.014	0.028	0.027	0.006	0.041	0.070	0.021
30	0.014	0.027	0.026	0.005	0.038	0.066	0.020
35	0.013	0.026	0.025	0.005	0.037	0.063	0.019
40	0.013	0.025	0.024	0.005	0.035	0.060	0.019
45	0.012	0.024	0.024	0.005	0.033	0.056	0.018
50	0.012	0.023	0.023	0.005	0.031	0.053	0.017

55	0.012	0.022	0.022	0.005	0.030	0.050	0.017
60	0.011	0.021	0.021	0.005	0.028	0.048	0.016

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: 30%

Speed							
MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
23	0.017	0.036	0.043	0.282	1.057	2.121	0.065

Pollutant Name: Carbon Monoxide Temperature: 71F Relative Humidity: 30%

Speed							
MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
23	0.788	1.498	1.617	2.192	13.169	14.771	1.385

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: 30%

Speed							
MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
23	0.062	0.148	0.242	2.366	6.039	1.114	0.259

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: 30%

Speed							
MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL

23 401.161 511.595 698.856 1606.810 1611.961 158.978 541.363

Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.004 0.005 0.007 0.015 0.016 0.002 0.005

Pollutant Name: PM10 Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.018 0.036 0.042 0.156 0.053 0.016 0.035

Pollutant Name: PM10 - Tire Wear Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.008 0.008 0.009 0.021 0.010 0.004 0.009

Pollutant Name: PM10 - Brake Wear Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 0.013 0.013 0.013 0.018 0.013 0.006 0.013

Pollutant Name: Gasoline - mi/gal Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 22.017 17.225 12.428 11.730 11.098 46.842 19.234

Pollutant Name: Diesel - mi/gal Temperature: 71F Relative Humidity: 30%

Speed

MPH LDA LDT MDT HDT UBUS MCY ALL

23 29.156 29.156 19.479 5.872 4.297 0.000 8.035

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average	Monterey	County Average
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Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.007	0.013	0.033	0.081	0.451	0.638	0.025
10	0.013	0.026	0.066	0.157	0.879	0.789	0.045
20	0.026	0.049	0.128	0.298	1.666	1.079	0.082
30	0.038	0.071	0.188	0.422	2.362	1.352	0.116
40	0.048	0.091	0.244	0.530	2.966	1.609	0.147
50	0.058	0.110	0.297	0.621	3.479	1.850	0.175
60	0.066	0.126	0.347	0.696	3.900	2.026	0.200
120	0.099	0.188	0.571	0.796	4.458	2.312	0.283
180	0.099	0.188	0.576	0.845	4.730	2.365	0.288
240	0.105	0.199	0.612	0.892	4.994	2.515	0.305
300	0.110	0.211	0.649	0.937	5.249	2.661	0.323
360	0.116	0.222	0.685	0.981	5.495	2.803	0.339
420	0.122	0.233	0.720	1.024	5.733	2.943	0.356
480	0.128	0.244	0.756	1.064	5.962	3.080	0.373
540	0.133	0.255	0.791	1.104	6.182	3.214	0.389
600	0.139	0.265	0.826	1.142	6.394	3.344	0.405
660	0.144	0.276	0.861	1.178	6.597	3.472	0.420
720	0.150	0.286	0.896	1.213	6.791	3.596	0.436

Pollutant Name: Carbon Monoxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
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5	0.100	0.189	0.420	1.092	5.577	2.977	0.286
10	0.198	0.372	0.830	2.140	10.928	3.579	0.541
20	0.386	0.723	1.621	4.102	20.949	4.732	1.026
30	0.563	1.053	2.373	5.887	30.064	5.817	1.480
40	0.729	1.363	3.086	7.494	38.273	6.836	1.902
50	0.884	1.652	3.760	8.923	45.575	7.788	2.292
60	1.029	1.919	4.395	10.176	51.971	8.672	2.651
120	1.600	2.938	6.989	12.271	62.671	12.340	3.859
180	1.553	2.856	6.891	12.630	64.504	12.241	3.821
240	1.675	3.073	7.491	13.000	66.396	13.259	4.083
300	1.784	3.266	8.019	13.383	68.349	14.202	4.320
360	1.879	3.436	8.476	13.777	70.362	15.068	4.532
420	1.961	3.582	8.862	14.183	72.436	15.857	4.718
480	2.029	3.706	9.176	14.601	74.570	16.570	4.879
540	2.083	3.806	9.419	15.030	76.764	17.206	5.014
600	2.124	3.882	9.590	15.472	79.019	17.766	5.124
660	2.151	3.936	9.690	15.925	81.334	18.250	5.208
720	2.165	3.966	9.719	16.390	83.709	18.657	5.267

Pollutant Name: Oxides of Nitrogen Temperature: 71F Relative Humidity: ALL

Time
min LDA LDT MDT HDT UBUS MCY ALL

5	0.052	0.122	0.656	0.309	2.327	0.155	0.199
10	0.056	0.132	0.687	0.465	3.506	0.195	0.222
20	0.064	0.149	0.745	0.740	5.577	0.265	0.261
30	0.070	0.163	0.795	0.964	7.265	0.323	0.295
40	0.075	0.175	0.838	1.137	8.569	0.369	0.321
50	0.079	0.184	0.873	1.259	9.490	0.403	0.341
60	0.081	0.191	0.900	1.330	10.027	0.424	0.355
120	0.088	0.205	0.982	1.339	10.092	0.426	0.377
180	0.088	0.206	0.982	1.334	10.055	0.423	0.377
240	0.087	0.204	0.974	1.326	9.998	0.416	0.374
300	0.086	0.202	0.962	1.316	9.922	0.408	0.370
360	0.085	0.199	0.944	1.304	9.826	0.398	0.364
420	0.083	0.194	0.922	1.288	9.711	0.387	0.357
480	0.081	0.189	0.895	1.270	9.576	0.373	0.348
540	0.078	0.183	0.863	1.250	9.421	0.358	0.338
600	0.075	0.176	0.826	1.227	9.247	0.342	0.326
660	0.072	0.168	0.785	1.201	9.053	0.323	0.313
720	0.068	0.159	0.738	1.173	8.840	0.303	0.298

Pollutant Name: Carbon Dioxide Temperature: 71F Relative Humidity: ALL

Time
min LDA LDT MDT HDT UBUS MCY ALL

5	11.948	15.057	21.481	2.866	4.388	13.286	13.932
10	13.423	16.990	24.260	5.717	8.753	15.484	15.886

20	16.862	21.466	30.690	11.370	17.408	19.799	20.344
30	20.952	26.756	38.280	16.959	25.967	24.007	25.533
40	25.694	32.862	47.031	22.485	34.428	28.107	31.454
50	31.088	39.782	56.942	27.948	42.792	32.101	38.106
60	37.134	47.518	68.013	33.347	51.059	35.986	45.490
120	86.449	110.006	157.265	56.718	86.843	53.440	103.678
180	98.137	124.957	178.663	67.008	102.598	57.674	117.908
240	109.805	139.864	199.992	76.691	117.424	61.659	132.055
300	121.452	154.727	221.253	85.766	131.319	65.396	146.120
360	133.078	169.545	242.446	94.234	144.285	68.885	160.103
420	144.683	184.320	263.570	102.095	156.321	72.125	174.005
480	156.267	199.050	284.625	109.349	167.426	75.117	187.824
540	167.830	213.737	305.612	115.995	177.602	77.860	201.561
600	179.372	228.379	326.531	122.033	186.848	80.354	215.217
660	190.893	242.977	347.381	127.465	195.164	82.600	228.790
720	202.393	257.531	368.163	132.289	202.550	84.598	242.281

Pollutant Name: Sulfur Dioxide Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.001	0.000	0.000
30	0.000	0.000	0.000	0.000	0.001	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.002	0.001	0.001
180	0.001	0.001	0.002	0.001	0.002	0.001	0.001
240	0.001	0.001	0.002	0.001	0.002	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.001
360	0.001	0.002	0.002	0.001	0.003	0.001	0.002
420	0.001	0.002	0.003	0.001	0.003	0.001	0.002
480	0.002	0.002	0.003	0.001	0.003	0.001	0.002
540	0.002	0.002	0.003	0.001	0.003	0.001	0.002
600	0.002	0.002	0.003	0.001	0.003	0.001	0.002
660	0.002	0.002	0.004	0.001	0.003	0.001	0.002
720	0.002	0.003	0.004	0.002	0.003	0.001	0.002

Pollutant Name: PM10 Temperature: 71F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.001	0.007	0.001
10	0.001	0.002	0.002	0.001	0.002	0.006	0.002
20	0.002	0.004	0.004	0.002	0.003	0.005	0.003
30	0.004	0.007	0.006	0.002	0.004	0.004	0.005

40	0.005	0.009	0.008	0.003	0.005	0.003	0.006
50	0.006	0.010	0.010	0.004	0.006	0.003	0.008
60	0.007	0.012	0.012	0.004	0.007	0.003	0.009
120	0.011	0.020	0.020	0.006	0.010	0.006	0.015
180	0.012	0.022	0.022	0.006	0.010	0.008	0.017
240	0.014	0.024	0.024	0.006	0.011	0.011	0.018
300	0.015	0.026	0.026	0.006	0.011	0.013	0.020
360	0.015	0.028	0.027	0.007	0.011	0.014	0.021
420	0.016	0.029	0.028	0.007	0.012	0.016	0.022
480	0.017	0.030	0.029	0.007	0.012	0.017	0.022
540	0.017	0.031	0.030	0.007	0.012	0.018	0.023
600	0.017	0.031	0.031	0.007	0.013	0.019	0.023
660	0.018	0.032	0.031	0.008	0.013	0.019	0.024
720	0.018	0.032	0.031	0.008	0.014	0.019	0.024

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average

Monterey

County Average

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

5	0.025	0.042	0.028	0.003	0.036	0.087	0.030
10	0.046	0.077	0.052	0.006	0.066	0.162	0.055
20	0.079	0.132	0.089	0.010	0.112	0.280	0.094
30	0.101	0.169	0.114	0.013	0.144	0.364	0.121
40	0.110	0.183	0.124	0.014	0.155	0.396	0.131

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF LDA LDT MDT HDT UBUS MCY ALL

71 0.029 0.062 0.055 0.001 0.003 0.246 0.050

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer
Emissions: 2007 Emissions Factor -- V2.2 NHTSA 2006

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
deg F

degF LDA LDT MDI HDI UBUS MCY ALL

71 0.002 0.005 0.004 0.000 0.001 0.023 0.004

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degF LDA LDT MDT HDT UBUS MCY ALL

71 0.017 0.039 0.040 0.001 0.001 0.090 0.030

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer
Emissions 2007 Edition Factor V2.3 N = 1,200,6

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp
degE

degF LDA LDI MDI HDI UBUS MCY ALL

71 0.001 0.003 0.003 0.000 0.000 0.009 0.002

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

LDA LDT MDT HDT UBUS MCY ALL

%VMT	0.454	0.360	0.120	0.055	0.001	0.011	1.000
%TRIP	0.427	0.316	0.173	0.073	0.000	0.010	1.000
%VEH	0.468	0.354	0.115	0.028	0.000	0.034	1.000

Title : 2030 PM10

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2008/08/01 09:29:00

Scen Year: 2030 -- All model years in the range 1986 to 2030 selected

Season : Summer

Area : Monterey

Year: 2030 -- Model Years 1986 to 2030 Inclusive -- Summer

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 71F Relative Humidity: ALL

Time

min LDA LDT MDT HDT UBUS MCY ALL

1	0.010	0.258	0.217	0.049	0.613	0.004	0.127
2	0.008	0.130	0.110	0.025	0.305	0.036	0.066
3	0.009	0.090	0.077	0.018	0.204	0.052	0.047
4	0.010	0.071	0.062	0.014	0.155	0.061	0.039
5	0.012	0.060	0.053	0.012	0.125	0.067	0.035
10	0.014	0.039	0.036	0.008	0.069	0.075	0.026

15	0.014	0.032	0.030	0.007	0.052	0.075	0.023
20	0.014	0.029	0.028	0.006	0.044	0.073	0.022
25	0.014	0.028	0.027	0.006	0.041	0.070	0.021
30	0.014	0.027	0.026	0.005	0.038	0.066	0.020
35	0.013	0.026	0.025	0.005	0.037	0.063	0.019
40	0.013	0.025	0.024	0.005	0.035	0.060	0.019
45	0.012	0.024	0.024	0.005	0.033	0.056	0.018
50	0.012	0.023	0.023	0.005	0.031	0.053	0.017
55	0.012	0.022	0.022	0.005	0.030	0.050	0.017
60	0.011	0.021	0.021	0.005	0.028	0.048	0.016

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Monterey GP Update 2008
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 6.1 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)	*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	*	TYPE VPH (G/MI) (M) (M)
A. Link A	*	0	0	300	0	*	AG 21950 14.0 .0 13.2
B. Link B	*	0	-1584	300	-1584	*	AG 24400 14.0 .0 13.2
C. Link C	*	0	-3168	300	-3168	*	AG 27500 14.0 .0 13.2

III. RECEPTOR LOCATIONS

*	COORDINATES (M)			
RECEPTOR	*	X	Y	Z

1. Recpt 1 * 75 15 1.8
2. Recpt 2 * 150 15 1.8
3. Recpt 3 * 225 15 1.8
4. Recpt 4 * 75 -15 1.8
5. Recpt 5 * 150 -15 1.8
6. Recpt 6 * 225 -15 1.8
7. Recpt 7 * 75 -1569 1.8
8. Recpt 8 * 150 -1569 1.8
9. Recpt 9 * 225 -1569 1.8
10. Recpt 10 * 75 -1599 1.8
11. Recpt 11 * 150 -1599 1.8
12. Recpt 12 * 225 -1599 1.8
13. Recpt 13 * 75 -3153 1.8
14. Recpt 14 * 150 -3153 1.8

15. Recpt 15 * 225 -3153 1.8
16. Recpt 16 * 75 -3183 1.8
17. Recpt 17 * 150 -3183 1.8
18. Recpt 18 * 225 -3183 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Monterey GP Update 2008
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

	*	*	PRED	*	CONC/LINK	
	*	BRG	*	CONC	*	(PPM)
RECEPTOR	*	(DEG)	*	(PPM)	*	A B C
	*	*	*	*	*	
1. Recpt 1	*	99.	*	19.3	*	19.3 .0 .0
2. Recpt 2	*	102.	*	18.5	*	18.5 .0 .0
3. Recpt 3	*	261.	*	19.3	*	19.3 .0 .0
4. Recpt 4	*	81.	*	19.3	*	19.3 .0 .0
5. Recpt 5	*	78.	*	18.5	*	18.5 .0 .0
6. Recpt 6	*	279.	*	19.3	*	19.3 .0 .0
7. Recpt 7	*	99.	*	21.4	*	.0 21.4 .0
8. Recpt 8	*	102.	*	20.5	*	.0 20.5 .0
9. Recpt 9	*	261.	*	21.4	*	.0 21.4 .0
10. Recpt 10	*	81.	*	21.4	*	.0 21.4 .0
11. Recpt 11	*	78.	*	20.5	*	.0 20.5 .0
12. Recpt 12	*	279.	*	21.4	*	.0 21.4 .0
13. Recpt 13	*	99.	*	24.1	*	.0 .0 24.1
14. Recpt 14	*	102.	*	23.1	*	.0 .0 23.1
15. Recpt 15	*	261.	*	24.1	*	.0 .0 24.1
16. Recpt 16	*	81.	*	24.1	*	.0 .0 24.1
17. Recpt 17	*	78.	*	23.1	*	.0 .0 23.1
18. Recpt 18	*	279.	*	24.1	*	.0 .0 24.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Monterey GP Update 2030 WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 6.1 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)	*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	*	TYPE VPH (G/MI) (M) (M)
A. Link A	*	0	0	300	0	*	AG 19000 2.4 .0 13.2
B. Link B	*	0	-1584	300	-1584	*	AG 24400 2.4 .0 13.2
C. Link C	*	0	-3168	300	-3168	*	AG 26900 2.4 .0 13.2

III. RECEPTOR LOCATIONS

*	COORDINATES (M)			
RECEPTOR	*	X	Y	Z

1. Recpt 1	*	75	15	1.8
2. Recpt 2	*	150	15	1.8
3. Recpt 3	*	225	15	1.8
4. Recpt 4	*	75	-15	1.8
5. Recpt 5	*	150	-15	1.8
6. Recpt 6	*	225	-15	1.8
7. Recpt 7	*	75	-1569	1.8
8. Recpt 8	*	150	-1569	1.8
9. Recpt 9	*	225	-1569	1.8
10. Recpt 10	*	75	-1599	1.8
11. Recpt 11	*	150	-1599	1.8
12. Recpt 12	*	225	-1599	1.8
13. Recpt 13	*	75	-3153	1.8
14. Recpt 14	*	150	-3153	1.8

15. Recpt 15 * 225 -3153 1.8
16. Recpt 16 * 75 -3183 1.8
17. Recpt 17 * 150 -3183 1.8
18. Recpt 18 * 225 -3183 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Monterey GP Update 2030 WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

	*	*	PRED	*	CONC/LINK	
	*	BRG	*	CONC	*	(PPM)
RECEPTOR	*	(DEG)	*	(PPM)	*	A B C
	*	*	*	*	*	-----
1. Recpt 1	*	99.	*	2.9	*	2.9 .0 .0
2. Recpt 2	*	102.	*	2.7	*	2.7 .0 .0
3. Recpt 3	*	261.	*	2.9	*	2.9 .0 .0
4. Recpt 4	*	81.	*	2.9	*	2.9 .0 .0
5. Recpt 5	*	78.	*	2.7	*	2.7 .0 .0
6. Recpt 6	*	279.	*	2.9	*	2.9 .0 .0
7. Recpt 7	*	99.	*	3.7	*	.0 3.7 .0
8. Recpt 8	*	102.	*	3.5	*	.0 3.5 .0
9. Recpt 9	*	261.	*	3.7	*	.0 3.7 .0
10. Recpt 10	*	81.	*	3.7	*	.0 3.7 .0
11. Recpt 11	*	78.	*	3.5	*	.0 3.5 .0
12. Recpt 12	*	279.	*	3.7	*	.0 3.7 .0
13. Recpt 13	*	99.	*	4.0	*	.0 .0 4.0
14. Recpt 14	*	102.	*	3.9	*	.0 .0 3.9
15. Recpt 15	*	261.	*	4.0	*	.0 .0 4.0
16. Recpt 16	*	81.	*	4.0	*	.0 .0 4.0
17. Recpt 17	*	78.	*	3.9	*	.0 .0 3.9
18. Recpt 18	*	279.	*	4.0	*	.0 .0 4.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Monterey GP Update 2030 Cumulative
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 6.1 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)	*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	*	TYPE VPH (G/MI) (M) (M)
A. Link A	*	0	0	300	0	*	AG 37600 2.4 .0 13.2
B. Link B	*	0	-1584	300	-1584	*	AG 32000 2.4 .0 13.2
C. Link C	*	0	-3168	300	-3168	*	AG 31800 2.4 .0 13.2

III. RECEPTOR LOCATIONS

*	COORDINATES (M)			
RECEPTOR	*	X	Y	Z

1. Recpt 1	*	75	15	1.8
2. Recpt 2	*	150	15	1.8
3. Recpt 3	*	225	15	1.8
4. Recpt 4	*	75	-15	1.8
5. Recpt 5	*	150	-15	1.8
6. Recpt 6	*	225	-15	1.8
7. Recpt 7	*	75	-1569	1.8
8. Recpt 8	*	150	-1569	1.8
9. Recpt 9	*	225	-1569	1.8
10. Recpt 10	*	75	-1599	1.8
11. Recpt 11	*	150	-1599	1.8
12. Recpt 12	*	225	-1599	1.8
13. Recpt 13	*	75	-3153	1.8
14. Recpt 14	*	150	-3153	1.8

15. Recpt 15 * 225 -3153 1.8
16. Recpt 16 * 75 -3183 1.8
17. Recpt 17 * 150 -3183 1.8
18. Recpt 18 * 225 -3183 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Monterey GP Update 2030 Cumulative
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

	*	*	PRED	*	CONC/LINK	
	*	BRG	*	CONC	*	(PPM)
RECEPTOR	*	(DEG)	*	(PPM)	*	A B C
	*	*	*	*	*	-----
1. Recpt 1	*	99.	*	5.7	*	5.7 .0 .0
2. Recpt 2	*	102.	*	5.4	*	5.4 .0 .0
3. Recpt 3	*	261.	*	5.7	*	5.7 .0 .0
4. Recpt 4	*	81.	*	5.7	*	5.7 .0 .0
5. Recpt 5	*	78.	*	5.4	*	5.4 .0 .0
6. Recpt 6	*	279.	*	5.7	*	5.7 .0 .0
7. Recpt 7	*	99.	*	4.8	*	.0 4.8 .0
8. Recpt 8	*	102.	*	4.6	*	.0 4.6 .0
9. Recpt 9	*	261.	*	4.8	*	.0 4.8 .0
10. Recpt 10	*	81.	*	4.8	*	.0 4.8 .0
11. Recpt 11	*	78.	*	4.6	*	.0 4.6 .0
12. Recpt 12	*	279.	*	4.8	*	.0 4.8 .0
13. Recpt 13	*	99.	*	4.8	*	.0 .0 4.8
14. Recpt 14	*	102.	*	4.6	*	.0 .0 4.6
15. Recpt 15	*	261.	*	4.8	*	.0 .0 4.8
16. Recpt 16	*	81.	*	4.8	*	.0 .0 4.8
17. Recpt 17	*	78.	*	4.6	*	.0 .0 4.6
18. Recpt 18	*	279.	*	4.8	*	.0 .0 4.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Monterey GP Update Buildout
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 6.1 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W
DESCRIPTION	*	X1	Y1	X2	Y2	*	TYPE	VPH	(G/MI) (M) (M)
A. Link A	*	0	0	300	0	*	AG	43300	2.4 .0 13.2
B. Link B	*	0	-1584	300	-1584	*	AG	40100	2.4 .0 13.2
C. Link C	*	0	-3168	300	-3168	*	AG	39900	2.4 .0 13.2

III. RECEPTOR LOCATIONS

*	COORDINATES (M)			
RECEPTOR	*	X	Y	Z
1. Recpt 1	*	75	15	1.8
2. Recpt 2	*	150	15	1.8
3. Recpt 3	*	225	15	1.8
4. Recpt 4	*	75	-15	1.8
5. Recpt 5	*	150	-15	1.8
6. Recpt 6	*	225	-15	1.8
7. Recpt 7	*	75	-1569	1.8
8. Recpt 8	*	150	-1569	1.8
9. Recpt 9	*	225	-1569	1.8
10. Recpt 10	*	75	-1599	1.8
11. Recpt 11	*	150	-1599	1.8
12. Recpt 12	*	225	-1599	1.8
13. Recpt 13	*	75	-3153	1.8
14. Recpt 14	*	150	-3153	1.8

15. Recpt 15 * 225 -3153 1.8
16. Recpt 16 * 75 -3183 1.8
17. Recpt 17 * 150 -3183 1.8
18. Recpt 18 * 225 -3183 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Monterey GP Update Buildout
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

	* * PRED * CONC/LINK	
	* BRG * CONC * (PPM)	
RECEPTOR	* (DEG) * (PPM) * A B C	

1. Recpt 1	* 99. * 6.5 * 6.5 .0 .0	
2. Recpt 2	* 102. * 6.2 * 6.2 .0 .0	
3. Recpt 3	* 261. * 6.5 * 6.5 .0 .0	
4. Recpt 4	* 81. * 6.5 * 6.5 .0 .0	
5. Recpt 5	* 78. * 6.2 * 6.2 .0 .0	
6. Recpt 6	* 279. * 6.5 * 6.5 .0 .0	
7. Recpt 7	* 99. * 6.0 * .0 6.0 .0	
8. Recpt 8	* 102. * 5.8 * .0 5.8 .0	
9. Recpt 9	* 261. * 6.0 * .0 6.0 .0	
10. Recpt 10	* 81. * 6.0 * .0 6.0 .0	
11. Recpt 11	* 78. * 5.8 * .0 5.8 .0	
12. Recpt 12	* 279. * 6.0 * .0 6.0 .0	
13. Recpt 13	* 99. * 6.0 * .0 .0 6.0	
14. Recpt 14	* 102. * 5.8 * .0 .0 5.8	
15. Recpt 15	* 261. * 6.0 * .0 .0 6.0	
16. Recpt 16	* 81. * 6.0 * .0 .0 6.0	
17. Recpt 17	* 78. * 5.8 * .0 .0 5.8	
18. Recpt 18	* 279. * 6.0 * .0 .0 6.0	

Greenhouse Gas Calculation Spreadsheets

Table GHG-1: Monterey County Greenhouse Gas Emissions Estimate, 2006

Source	GHG Emissions (MT CO ₂ e)	% of Total	Notes
Vehicle Emission:	647,175	45%	Includes miles on County roads and 25% of state highway mile;
Natural Gas Consumption	190,848	13%	Residential, commercial, and industrial consumption from PG&E
Electricity Consumption	209,103	15%	Residential, commercial, and industrial consumption from PG&E
Industrial Processes	201,290	14%	Based on MBUAPCD inventory data
Landfill Emissions	32,829	2%	Based on CIWMB data.
Offroad Equipment Use	152,114	11%	Based on OFFROAD model with apportionment
Fugitive Methane from Nat. Gas Pipeline:	5,417	0%	Based on California per capita average
Total	1,438,776	100%	

Source: See Tables GHG-4 through GHG-11

Table GHG-2: Monterey County Greenhouse Gas Increase in Emissions, 2020 and 2030

Source	GHG Emissions (MT CO ₂ e)	% of Total	Notes
<i>Business as Usual Conditions</i>			
Vehicle Emission:	73,093	27%	Based on growth in VMT (2030 factors)
Natural Gas Consumption	26,000	10%	Residential, commercial, and industrial consumption
Electricity Consumption	24,935	9%	Residential, commercial, and industrial consumption
Industrial processes	51,230	19%	Based on growth in industrial employment
Landfill Emissions	8,988	3%	Based on growth in population
Offroad Equipment Use	49,899	18%	Based on OFFROAD model with apportionment
Fugitive Methane from Nat. Gas Pipeline:	1,483	1%	Based on growth in population
AWCP Wineries and Ancillary Use:	5,327	2%	Building energy only (transportation included above). Assumes all built by 2030
Coastal Water Project	2,890	0%	Apportioned emissions to County based on population served
Annualized Stock/Sequestration Los:	26,046	10%	Includes loss in sequestration and average stock loss (2006 - 2030)
Total from New Development 2030	269,891	100%	
Total from New Development 2020	157,436		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,438,776		Assumed no change since 2006
Total for 2020	1,596,212		
<i>Percent Change relative to 2006</i>		11%	
Total for 2030	1,708,667		
<i>With AB 1493 vehicle emissions standards and SB 1078, SB 107 RPS requirement of 20% renewable energy</i>			
Vehicle Emission:	67,654	26%	Adjusted for Pavley 1
Natural Gas Consumption	26,000	10%	Not adjusted
Electricity Consumption	22,941	9%	Adjusted for SB 1078/SB 107 (8 percent)
Industrial processes	51,230	20%	Not adjusted for potential improvements in process efficiency
Landfill Emissions	8,988	3%	Not adjusted for potential improvements in landfill capture
Offroad Equipment Use	49,899	19%	Not adjusted for equipment efficiency improvement
Fugitive Methane from Nat. Gas Pipeline:	1,483	1%	Not adjusted
AWCP Wineries and Ancillary Use:	4,901	2%	Adjusted for SB 1078/SB 107 (8 percent)
Coastal Water Project	2,659	0%	Adjusted for SB 1078/SB 107 (8 percent)
Annualized Stock/Sequestration Los:	26,046	10%	Not adjusted
Total from New Development 2030	261,799	100%	
Total from New Development 2020	152,716		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,350,859		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development (due to Pavley 1 and SB 1078/SB 107)
Total for 2020	1,503,575		
<i>Percent Change relative to 2006</i>		5%	
<i>Percent of 2020 BAU</i>		94%	
Total for 2030	1,612,658		

Table GHG-2: Monterey County Greenhouse Gas Increase in Emissions, 2020 and 2030, continued

Source	GHG Emissions (MT CO ₂ e)	% of Total	Notes
<i>With Pavley II vehicle emissions standards, Governor's Low Carbon Fuel Standard and Draft Scoping Plan RPS goal of 33% renewable energy</i>			
Vehicle Emissions	49,522	22%	Adjusted for AB-32 measures (Pavley 1/2, LCFS, efficiency measures, and HD/MD measures) resulting in 26.8% reduction for transportation emission
Natural Gas Consumption	23,530	10%	Adjusted for AB-32 measures (Title 24/ Other State Energy Efficiency Improvements) resulting in 9.5% reduction for natural gas sector
Electricity Consumption	15,485	7%	Adjusted for AB-32 measures (RPS goal of 33%, Title 24/Other State Energy Efficiency Improvements, million solar roofs) resulting in total of 32.5% reduction from electricity sector.
Industrial processes	51,230	22%	Not adjusted for potential improvements in process efficiency
Landfill Emissions	7,819	3%	Adjusted for state measure on landfills (13%)
Offroad Equipment Use	46,306	20%	Adjusted for LCFS (7.2%)
Fugitive Methane from Nat. Gas Pipeline:	1,483	1%	Not adjusted
AWCP Wineries and Ancillary Use:	3,899	2%	Adjusted for AB-32 electricity and natural gas measures (26.8%)
Coastal Water Project	2,448	1%	Adjusted for RPS (15.3%)
Annualized Stock/Sequestration Los:	26,046	11%	Not adjusted
Total from New Development 2030	227,769	100%	
Total from New Development 2020	132,865		Scaled based on years (+14 years to 2020/+24 years to 2030)
Total from Existing Development	1,188,613		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development due to AB-32 measure
Total for 2020	1,321,478		
<i>Percent Change relative to 2006</i>		-8%	
<i>Percent of 2020 BAU</i>		83%	
Total for 2030	1,416,381		

Source: See Tables GHG-4 through GHG-11

Table GHG-3: Monterey County Greenhouse Gas Increase in Emissions, Buildout

Source	GHG Emissions (MT CO ₂ e)	% of Total	Notes
<i>Business as Usual Conditions</i>			
Vehicle Emission:	331,419	34%	Based on growth in VMT (2040 factors ¹)
Natural Gas Consumption	95,289	10%	Residential, commercial, and industrial consumption
Electricity Consumption	91,040	9%	Residential, commercial, and industrial consumption
Industrial processes	194,226	20%	Based on growth in industrial employment
Landfill Emissions	32,242	3%	Based on growth in population
Offroad Equipment Use	178,805	18%	Scaled from 2030 estimate based on growth in population
Fugitive Methane from Nat. Gas Pipeline:	5,321	1%	Based on growth in population
AWCP Wineries and Ancillary Use:	5,327	1%	
Coastal Water Project	2,890	0%	
Annualized Stock/Sequestration Los:	31,882	3%	Includes loss in sequestration and average stock loss (2006 - 2092)
Total from New Development	968,441	100%	
Total from Existing Development	1,438,776		Assumed no change since 2006
Total	2,407,217		
<i>Percent Change relative to 2006</i>		67%	
<i>With Pavley II vehicle emissions standards, Governor's Low Carbon Fuel Standard and Draft Scoping Plan RPS goal of 33% renewable energy</i>			
Vehicle Emissions	242,599	30%	Adjusted for AB-32 measures (Pavley 1/2, LCFS, efficiency measures, and HD/MD measures) resulting in 26.8% reduction for transportation emissions
Natural Gas Consumption	86,237	10%	Adjusted for AB-32 measures (Title 24/ Other State Energy Efficiency Improvements) resulting in 9.5% reduction for natural gas sector
Electricity Consumption	61,452	7%	Adjusted for AB-32 measures (RPS goal of 33%, Title 24/Other State Energy Efficiency Improvements, million solar roofs) resulting in total of 32.5% reduction from electricity sector.
Industrial processes	194,226	24%	Not adjusted for potential improvements in process efficiency
Landfill Emissions	28,051	3%	Adjusted for state measure on landfills (13%)
Offroad Equipment Use	165,931	20%	Adjusted for LCFS (7.2%)
Fugitive Methane from Nat. Gas Pipeline:	5,321	1%	Not adjusted
AWCP Wineries and Ancillary Use:	3,899	0%	Adjusted for AB-32 electricity and natural gas measures (26.8%)
Coastal Water Project	2,448	0%	Adjusted for RPS (15.3%)
Annualized Stock/Sequestration Los:	31,882	4%	Not adjusted
Total from New Development	822,045	100%	
Total from Existing Development	1,194,030		Assumes similar percentage reduction for existing development relative to BAU as estimated for new development for Pavley 2, LCFS and RPS goal of 33%
Total	2,016,075	40%	
<i>Percent Change relative to 2006</i>			

Source: See Tables GHG-4 through GHG-11

Table GHG-4 Traffic Calculations Monterey Unincorporated 2006

2006 HPMS Data, Monterey

unincorporated	1,714,260	DVMT
highway	5,817,920	DVMT
all	9,913,340	DVMT

**25% of highway miles traveled added to unincorporated DVMT for calculation

2006 DVMT for Monterey County Unincorporated (including highway miles)

3,168,740	DVMT
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EMFAC Emission Factors

0.066	grams/mile CH4
558.168	grams/mile CO2

Annual Miles Traveled

1,156,590,100	VMT/yr
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Annual GHG Emissions 2006

76.3	metric tons CH4
645,571.6	metric tons CO2
647,174.6	metric tons CO2e

Traffic Calculations Monterey Unincorporated 2030

2030 VMT Data, Monterey

unincorporated	369,679	DVMT
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EMFAC Emission Factors

0.016	grams/mile CH4
541,363	grams/mile CO2

Annual Miles Traveled

134,932,835	VMT/yr
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Annual increase in GHG Emissions 2030

2.3	metric tons CH4
73,047.6	metric tons CO2
73,093.0	metric tons CO2e

Pavley 1 (11% reduction in emissions from passenger vehicles)

61,194,692.8	VMT from LDA	
48,608,884.8	VMT from LDT	
24,561.8	metric tons of CO2e from LDA	
24,886.4	metric tons of CO2e from LDT	
49,446.2	metric tons of CO2e from LDA and LDT	
23,644.8	metric tons of CO2e from other traffic	

reduced to...

44,006.9	metric tons of CO2e from passenger vehicles with Pavley I
67,653.7	metric tons of CO2e total in 2030 with Pavley I reductions

NET INCREASE with Pavley I

67,653.7	metric tons of CO2e increased over 2006 emissions levels with Pavley I
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Traffic Calculations Monterey Unincorporated Buildout

Buildout VMT Data, Monterey

unincorporated	1,683,918	New DVMT
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EMFAC Emission Factors

0.013	grams/mile CH4
538,944	grams/mile CO2

Annual Miles Traveled

614,630.070	
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Annual GHG Emissions Buildout

8.0	metric tons CH4
331,251.2	metric tons CO2
331,419.0	metric tons CO2e

NET INCREASE BAU Buildout

331,419.0	metric tons CO2e increased over 2006
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Table GHG-5: Natural Gas Calculations
2006 Natural Gas Monterey County Unincorp

	therm/yr	MMBTU/yr	metric tons CO2	metric tons CH4	metric tons N2O	metric tons CO2e
Res	15,991,626.0	1,599,162.6	84,868.9	8.0	0.2	85,086.4
Comm	19,462,577.0	1,946,257.7	103,289.6	9.7	0.2	103,554.2
Ind	415,484.0	41,548.4	2,205.0	0.0	0.0	2,207.2
TOTAL	35,869,687.0	3,586,968.7	190,363.5	17.8	0.4	190,847.8

PG&E 2006 CO2 Emission Factor	
	11.7 lb/therm

The Climate Registry CH4 and N2O Emission Factors	
51g CH4/MMBtu	commercial and
0.1g N2O/MMBtu	residential

The Climate Registry CH4 and N2O Emission Factors	
industrial	1g CH4/MMBtu
	0.1g N2O/MMBtu

Conversion Factors	
	2204.6 lb/metric ton

GWPs	
	1 CO2
	21 CH4
	310 N2O

2030 and Buildout Natural Gas Monterey County Unincorp

2030 - URBEMIS - Natural Ga	26,000	0.90718474 ST/ MT adjustment
Buildout URBEMIS - Natural Gas	95,289	

Table GHG-6: Electricity Calculations**2006 Electricity Monterey County Unincorp**

	sq ft or units	kWh/unit or sq. ft	kwh/yr	metric tons CO2	metric tons CH4	metric tons N2O	metric tons CO2e
Res	38,655.0	7,287.1	281,683,455.0	58,263.5	0.9	0.5	58,428.0
Comm	232,000,560.0	3.0	706,244,834.0	146,079.9	2.1	1.2	146,492.4
Ind	217,860,984.0	0.023	4,939,200.0	1,021.6	0.0	0.0	1,024.5
Direct Access	N/A	N/A	15,223,422.0	3,148.8	0.0	0.0	3,157.7
TOTAL			1,008,090,911.0	208,513.8	3.1	1.7	209,102.6

PG&E 2006 CO2 Emission Factor		
0.456		lb/kWh

CCAR CH4 and N2O Emission Factors		
0.0067		lb/MWh
0.0037		lb/MWh

Conversion Factors		
2204.6		lb/metric ton

GWP _s			
1			CO2
21			CH4
310			N2O

2030 New Electricity Monterey County Unincorp

	NEW sq ft or units	NEW kWh/unit or sq. ft	kwh/yr	metric tons CO2	metric tons CH4	metric tons N2O	metric tons CO2e
Res	10,015.0	7,287.1	72,980,463.1	15,095.3	0.2	0.1	15,137.9
Comm	3,455,216.0	13.6	47,094,594.1	9,741.1	0.1	0.1	9,768.6
Ind	6,159,160.0	0.023	139,636.4	28.9	0.0	0.0	29.0
Direct Access	N/A	N/A		0.0	0.0	0.0	0.0
TOTAL				24,865.2	0.4	0.2	24,935.5

PG&E 2006 CO2 Emission Factor		
0.456		lb/kWh

CCAR CH4 and N2O Emission Factors		
0.0067		lb/MWh
0.0037		lb/MWh

Conversion Factors		
2204.6		lb/metric ton

GWP _s			
1			CO2
21			CH4
310			N2O

Buildout New Electricity Monterey County Unincorp

	NEW sq ft or units	NEW kWh/unit or sq. ft	kwh/yr	metric tons CO2	metric tons CH4	metric tons N2O	metric tons CO2e
Res	37,081.0	7,287.1	270,213,535.0	55,891.0	0.8	0.5	56,048.9
Comm	12,340,059.0	13.6	168,195,004.2	34,789.5	0.5	0.3	34,887.7
Ind	21,997,000.0	0.023	498,701.4	103.2	0.0	0.0	103.4
Direct Access	N/A	N/A		0.0	0.0	0.0	0.0
TOTAL				90,783.7	1.3	0.7	91,040.0

PG&E 2006 CO2 Emission Factor		
0.456		lb/kWh

CCAR CH4 and N2O Emission Factors		
0.0067		lb/MWh
0.0037		lb/MWh

Conversion Factors		
2204.6		lb/metric ton

GWP _s			
1			CO2
21			CH4
310			N2O

Table GHG-7: Landfill Emission Calculations

138428	tons waste	crazy horse	29,880
		johnson canyon	19,030
		monterey peninsula	85,509
			134,420
% waste by volume			
21.0%	paper		
14.6%	food		
36.5%	plant		
12.0%	wood		
ICLEI emission factors			
2.138	tons/ton paper		
1.21	food		
0.686	plant		
0.605	wood		
total waste by type	CO2e	75% methane recovery	
29069.88	paper	62,151	15,538
20210.488	food	24,455	6,114
50526.22	plant	34,661	8,665
16611.36	wood	10,050	2,512
		131,317	32,829
	2006	106,279	Increase > 2006
pop growth	2030	135,375	27%
pop growth	buildout	210,659	98%
			Landfill GHG
			8,988
			32,242

Table GHG-8a: Offroad Emissions, Monterey County (all County, short tons)

Category	All County				Unincorporated County		
	2006	2030	Change	Apportion	2006	2030	2092
Total	Total		Percent				
Agricultural	87,448	86,725	-724	100%	87,448	86,725	84,855
Airport Ground Support	1,367	2,108	741	100%	1,367	2,108	4,021
Construction and Mining	50,927	71,198	20,271	100%	50,927	71,198	123,564
Entertainment Equipment	257	256	0	100%	257	256	255
Industrial Equipment	10,542	12,235	1,693	population	2,552	2,748	3,254
Lawn and Garden	6,657	7,460	803	population	1,612	1,676	1,841
Light Commercial	14,137	16,476	2,339	population	3,423	3,700	4,418
Military Tactical Equipment	92	92	0	Excluded			0
Recreational (incl. pleasure. craft)	39,625	88,488	48,863	population	9,593	19,875	46,435
Railyard Operations	3	3	0	100%	3	3	3
Transportation Refrigeration Units	10,495	34,393	23,898	100%	10,495	34,393	96,130
	221,550	319,434	97,884		167,677	222,682	364,776
						55,004	197,098

Table GHG-8b: Offroad Emissions, Monterey County (all County, metric tons)

Category	All County				Unincorporated County		
	2006	2030	Change	Apportion	2006	2030	2092
Total	Total		Percent				
Agricultural	79,332	78,675	-656	100%	79,332	78,675	76,979
Airport Ground Support	1,240	1,912	672	100%	1,240	1,912	3,648
Construction and Mining	46,200	64,589	18,390	100%	46,200	64,589	112,096
Entertainment Equipment	233	233	0	100%	233	233	231
Industrial Equipment	9,563	11,099	1,536	population	2,315	2,493	2,952
Lawn and Garden	6,039	6,768	729	population	1,462	1,520	1,670
Light Commercial	12,825	14,946	2,122	population	3,105	3,357	4,008
Military Tactical Equipment	84	84	0	Excluded			0
Recreational (incl. pleasure. craft)	35,947	80,275	44,328	population	8,703	18,030	42,125
Railyard Operations	3	3	0	100%	3	3	3
Transportation Refrigeration Units	9,521	31,201	21,680	100%	9,521	31,201	87,207
	200,987	289,786	88,799		152,114	202,013	330,919
						49,899	178,805

Source: CARB, OFFROAD 2007

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	2-Wheel Tractors	5	Agricultural Equipment	1.48E-02	2.19E-05	2.03E-05
2006	Annual	2-Wheel Tractors	15	Agricultural Equipment	7.14E-02	7.81E-05	6.68E-05
2006	Annual	2-Wheel Tractors	25	Agricultural Equipment	3.83E-03	2.90E-06	3.71E-06
2006	Annual	Agricultural Tractors	120	Agricultural Equipment	7.83E-01	2.31E-04	2.00E-04
2006	Annual	Agricultural Tractors	175	Agricultural Equipment	1.59E-01	4.21E-05	1.84E-05
2006	Annual	Combines	120	Agricultural Equipment	6.69E-02	1.56E-05	1.13E-05
2006	Annual	Combines	175	Agricultural Equipment	5.75E-02	1.17E-05	5.72E-06
2006	Annual	Combines	250	Agricultural Equipment	1.22E-02	2.16E-06	1.09E-06
2006	Annual	Balers	50	Agricultural Equipment	1.35E-01	4.98E-05	3.35E-05
2006	Annual	Balers	120	Agricultural Equipment	1.25E-01	4.30E-05	2.13E-05
2006	Annual	Agricultural Mowers	15	Agricultural Equipment	2.68E-02	2.94E-05	4.08E-05
2006	Annual	Agricultural Mowers	25	Agricultural Equipment	4.93E-02	3.46E-05	6.82E-05
2006	Annual	Sprayers	5	Agricultural Equipment	2.88E-02	4.63E-05	4.22E-05
2006	Annual	Sprayers	15	Agricultural Equipment	1.57E-02	1.75E-05	2.61E-05
2006	Annual	Sprayers	25	Agricultural Equipment	9.85E-02	6.81E-05	1.46E-04
2006	Annual	Sprayers	50	Agricultural Equipment	2.57E-02	1.02E-05	6.43E-06
2006	Annual	Sprayers	120	Agricultural Equipment	8.83E-02	3.08E-05	1.52E-05
2006	Annual	Sprayers	175	Agricultural Equipment	3.98E-02	1.07E-05	4.06E-06
2006	Annual	Tillers	15	Agricultural Equipment	1.76E+00	1.67E-03	2.68E-03
2006	Annual	Swathers	120	Agricultural Equipment	4.56E-01	1.39E-04	7.96E-05
2006	Annual	Swathers	175	Agricultural Equipment	4.98E-01	1.37E-04	5.09E-05
2006	Annual	Hydro Power Units	5	Agricultural Equipment	4.34E-03	6.11E-06	6.01E-06
2006	Annual	Hydro Power Units	15	Agricultural Equipment	3.67E-02	4.32E-05	3.32E-05
2006	Annual	Hydro Power Units	25	Agricultural Equipment	2.98E-02	2.36E-05	2.84E-05
2006	Annual	Hydro Power Units	50	Agricultural Equipment	9.29E-03	2.69E-06	1.90E-06
2006	Annual	Hydro Power Units	120	Agricultural Equipment	1.99E-03	3.69E-07	1.09E-07
2006	Annual	Other Agricultural Equipment	5	Agricultural Equipment	1.97E-03	3.06E-06	2.65E-06
2006	Annual	Other Agricultural Equipment	15	Agricultural Equipment	4.30E-03	3.91E-06	6.98E-06
2006	Annual	Other Agricultural Equipment	25	Agricultural Equipment	2.74E-03	1.51E-06	3.99E-06
2006	Annual	Other Agricultural Equipment	50	Agricultural Equipment	6.36E-03	2.68E-06	1.75E-06
2006	Annual	Other Agricultural Equipment	120	Agricultural Equipment	8.41E-02	2.97E-05	1.60E-05
2006	Annual	Other Agricultural Equipment	175	Agricultural Equipment	1.89E-02	5.19E-06	2.10E-06
2006	Annual	Other Agricultural Equipment	250	Agricultural Equipment	1.24E-02	2.42E-06	1.23E-06
2006	Annual	Agricultural Tractors	15	Agricultural Equipment	2.96E+00	0.00E+00	3.38E-04
2006	Annual	Agricultural Tractors	25	Agricultural Equipment	6.99E+00	0.00E+00	9.54E-04
2006	Annual	Agricultural Tractors	50	Agricultural Equipment	2.47E+01	0.00E+00	1.15E-02
2006	Annual	Agricultural Tractors	120	Agricultural Equipment	6.07E+01	0.00E+00	1.30E-02
2006	Annual	Agricultural Tractors	175	Agricultural Equipment	5.85E+01	0.00E+00	8.24E-03
2006	Annual	Agricultural Tractors	250	Agricultural Equipment	5.40E+01	0.00E+00	5.47E-03
2006	Annual	Agricultural Tractors	500	Agricultural Equipment	1.75E+01	0.00E+00	1.59E-03
2006	Annual	Combines	120	Agricultural Equipment	5.27E-01	0.00E+00	9.75E-05
2006	Annual	Combines	175	Agricultural Equipment	1.03E+00	0.00E+00	1.24E-04
2006	Annual	Combines	250	Agricultural Equipment	1.55E+00	0.00E+00	1.32E-04
2006	Annual	Combines	500	Agricultural Equipment	8.50E-02	0.00E+00	6.67E-06
2006	Annual	Balers	50	Agricultural Equipment	2.42E-04	0.00E+00	7.64E-08
2006	Annual	Balers	120	Agricultural Equipment	2.56E-01	0.00E+00	4.61E-05
2006	Annual	Agricultural Mowers	120	Agricultural Equipment	2.94E-02	0.00E+00	6.01E-06
2006	Annual	Sprayers	25	Agricultural Equipment	1.42E-02	0.00E+00	3.65E-06
2006	Annual	Sprayers	50	Agricultural Equipment	4.98E-03	0.00E+00	1.56E-06
2006	Annual	Sprayers	120	Agricultural Equipment	1.21E-01	0.00E+00	2.17E-05
2006	Annual	Sprayers	175	Agricultural Equipment	8.42E-02	0.00E+00	9.88E-06
2006	Annual	Sprayers	250	Agricultural Equipment	8.63E-02	0.00E+00	7.13E-06
2006	Annual	Sprayers	500	Agricultural Equipment	1.61E-02	0.00E+00	1.22E-06
2006	Annual	Tillers	15	Agricultural Equipment	4.42E-04	0.00E+00	5.50E-08
2006	Annual	Tillers	250	Agricultural Equipment	1.44E-03	0.00E+00	1.25E-07
2006	Annual	Tillers	500	Agricultural Equipment	7.73E-03	0.00E+00	6.13E-07
2006	Annual	Swathers	120	Agricultural Equipment	1.58E+00	0.00E+00	2.87E-04
2006	Annual	Swathers	175	Agricultural Equipment	2.71E-02	0.00E+00	3.21E-06
2006	Annual	Hydro Power Units	15	Agricultural Equipment	9.95E-03	0.00E+00	1.14E-06
2006	Annual	Hydro Power Units	25	Agricultural Equipment	5.71E-02	0.00E+00	7.80E-06
2006	Annual	Hydro Power Units	50	Agricultural Equipment	1.14E-01	0.00E+00	6.49E-05
2006	Annual	Hydro Power Units	120	Agricultural Equipment	2.10E-02	0.00E+00	4.95E-06
2006	Annual	Other Agricultural Equipment	15	Agricultural Equipment	2.54E-02	0.00E+00	3.18E-06
2006	Annual	Other Agricultural Equipment	25	Agricultural Equipment	1.30E-01	0.00E+00	2.86E-05
2006	Annual	Other Agricultural Equipment	50	Agricultural Equipment	1.76E-01	0.00E+00	7.59E-05
2006	Annual	Other Agricultural Equipment	120	Agricultural Equipment	1.19E+00	0.00E+00	2.45E-04
2006	Annual	Other Agricultural Equipment	175	Agricultural Equipment	1.79E-01	0.00E+00	2.43E-05
2006	Annual	Other Agricultural Equipment	250	Agricultural Equipment	2.60E-01	0.00E+00	2.52E-05
2006	Annual	Other Agricultural Equipment	500	Agricultural Equipment	9.02E-02	0.00E+00	7.89E-06
2006	Annual	Cargo Tractor	120	Airport Ground Support Equipment	4.54E-01	1.23E-04	1.27E-04
2006	Annual	A/C Tug Narrow Body	175	Airport Ground Support Equipment	4.60E-02	1.01E-05	5.05E-06

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	A/C Tug Wide Body	500	Airport Ground Support Equipment	4.02E-02	3.79E-06	2.97E-06
2006	Annual	Air Conditioner	175	Airport Ground Support Equipment	4.12E-05	8.61E-09	3.51E-09
2006	Annual	Air Start Unit	175	Airport Ground Support Equipment	3.90E-03	7.51E-07	3.38E-07
2006	Annual	Baggage Tug	120	Airport Ground Support Equipment	4.06E-01	8.58E-05	5.42E-05
2006	Annual	Belt Loader	120	Airport Ground Support Equipment	9.69E-02	2.88E-05	1.49E-05
2006	Annual	Bobtail	120	Airport Ground Support Equipment	6.53E-02	1.38E-05	8.71E-06
2006	Annual	Cargo Loader	120	Airport Ground Support Equipment	2.67E-02	7.72E-06	4.46E-06
2006	Annual	Cart	15	Airport Ground Support Equipment	1.81E-04	1.73E-07	1.75E-07
2006	Annual	Deicer	120	Airport Ground Support Equipment	1.00E-03	2.07E-07	1.38E-07
2006	Annual	Forklift	50	Airport Ground Support Equipment	1.11E-02	3.81E-06	2.20E-06
2006	Annual	Fuel Truck	175	Airport Ground Support Equipment	4.32E-04	1.55E-07	3.86E-08
2006	Annual	Ground Power Unit	175	Airport Ground Support Equipment	6.88E-02	9.91E-06	3.99E-06
2006	Annual	Lav Cart	15	Airport Ground Support Equipment	1.56E-05	1.50E-08	1.51E-08
2006	Annual	Lav Truck	175	Airport Ground Support Equipment	3.70E-02	1.25E-05	3.65E-06
2006	Annual	Lift	120	Airport Ground Support Equipment	3.31E-02	9.25E-06	6.62E-06
2006	Annual	Maint. Truck	175	Airport Ground Support Equipment	3.51E-02	8.97E-06	3.31E-06
2006	Annual	Other GSE	50	Airport Ground Support Equipment	8.46E-03	2.67E-06	2.09E-06
2006	Annual	Passenger Stand	175	Airport Ground Support Equipment	1.13E-02	2.80E-06	1.06E-06
2006	Annual	Sweeper	120	Airport Ground Support Equipment	7.99E-04	2.96E-07	1.57E-07
2006	Annual	Generator	120	Airport Ground Support Equipment	3.81E-03	8.60E-07	1.09E-06
2006	Annual	Service Truck	250	Airport Ground Support Equipment	1.02E-01	3.80E-05	1.19E-05
2006	Annual	Catering Truck	250	Airport Ground Support Equipment	7.31E-02	1.66E-05	8.84E-06
2006	Annual	Water Truck	175	Airport Ground Support Equipment	2.83E-03	1.07E-06	2.75E-07
2006	Annual	Hydrant truck	175	Airport Ground Support Equipment	7.61E-02	1.91E-05	1.01E-05
2006	Annual	Cargo Tractor	175	Airport Ground Support Equipment	8.10E-03	0.00E+00	9.61E-06
2006	Annual	Air Conditioner	175	Airport Ground Support Equipment	2.22E-04	0.00E+00	2.51E-07
2006	Annual	Baggage Tug	120	Airport Ground Support Equipment	6.68E-02	0.00E+00	1.72E-04
2006	Annual	Belt Loader	120	Airport Ground Support Equipment	6.44E-03	0.00E+00	1.38E-05
2006	Annual	Bobtail	120	Airport Ground Support Equipment	1.61E-03	0.00E+00	2.07E-06
2006	Annual	Cargo Loader	120	Airport Ground Support Equipment	5.67E-03	0.00E+00	1.65E-05
2006	Annual	Forklift	50	Airport Ground Support Equipment	2.23E-02	0.00E+00	2.44E-05
2006	Annual	Fuel Truck	175	Airport Ground Support Equipment	1.36E-03	0.00E+00	1.82E-06
2006	Annual	Lav Truck	175	Airport Ground Support Equipment	7.73E-04	0.00E+00	9.85E-07
2006	Annual	Lift	120	Airport Ground Support Equipment	9.81E-04	0.00E+00	1.77E-06
2006	Annual	Other	50	Airport Ground Support Equipment	7.65E-03	0.00E+00	1.98E-05
2006	Annual	Passenger Stand	175	Airport Ground Support Equipment	3.10E-05	0.00E+00	3.51E-08
2006	Annual	Sweeper	50	Airport Ground Support Equipment	1.69E-04	0.00E+00	2.41E-07
2006	Annual	Service Truck	250	Airport Ground Support Equipment	1.42E-02	0.00E+00	1.93E-05
2006	Annual	Catering Truck	250	Airport Ground Support Equipment	5.60E-03	0.00E+00	7.27E-06
2006	Annual	Cargo Tractor	120	Airport Ground Support Equipment	2.39E-02	0.00E+00	5.77E-06
2006	Annual	A/C Tug Narrow Body	250	Airport Ground Support Equipment	1.85E-01	0.00E+00	2.76E-05
2006	Annual	A/C Tug Wide Body	500	Airport Ground Support Equipment	1.04E-01	0.00E+00	1.39E-05
2006	Annual	Air Conditioner	175	Airport Ground Support Equipment	3.11E-02	0.00E+00	3.51E-06
2006	Annual	Air Conditioner	250	Airport Ground Support Equipment	3.50E-03	0.00E+00	2.24E-07
2006	Annual	Air Conditioner	500	Airport Ground Support Equipment	4.67E-03	0.00E+00	2.52E-07
2006	Annual	Air Start Unit	175	Airport Ground Support Equipment	3.52E-04	0.00E+00	4.35E-08
2006	Annual	Air Start Unit	250	Airport Ground Support Equipment	1.51E-03	0.00E+00	1.32E-07
2006	Annual	Air Start Unit	500	Airport Ground Support Equipment	1.19E-01	0.00E+00	9.26E-06
2006	Annual	Air Start Unit	750	Airport Ground Support Equipment	2.56E-02	0.00E+00	2.07E-06
2006	Annual	Baggage Tug	120	Airport Ground Support Equipment	2.27E-01	0.00E+00	6.16E-05
2006	Annual	Belt Loader	120	Airport Ground Support Equipment	5.33E-02	0.00E+00	1.35E-05
2006	Annual	Bobtail	120	Airport Ground Support Equipment	6.28E-03	0.00E+00	1.51E-06
2006	Annual	Cargo Loader	120	Airport Ground Support Equipment	1.12E-01	0.00E+00	2.63E-05
2006	Annual	Forklift	175	Airport Ground Support Equipment	1.18E-02	0.00E+00	1.69E-06
2006	Annual	Fuel Truck	250	Airport Ground Support Equipment	5.40E-03	0.00E+00	5.35E-07
2006	Annual	Ground Power Unit	175	Airport Ground Support Equipment	3.24E-01	0.00E+00	4.74E-05
2006	Annual	Lav Truck	175	Airport Ground Support Equipment	2.39E-03	0.00E+00	3.75E-07
2006	Annual	Lift	120	Airport Ground Support Equipment	2.07E-02	0.00E+00	4.54E-06
2006	Annual	Other GSE	175	Airport Ground Support Equipment	5.26E-02	0.00E+00	8.78E-06
2006	Annual	Passenger Stand	120	Airport Ground Support Equipment	2.89E-04	0.00E+00	4.88E-08
2006	Annual	Sweeper	120	Airport Ground Support Equipment	1.52E-03	0.00E+00	2.55E-07
2006	Annual	Generator	120	Airport Ground Support Equipment	1.40E-02	0.00E+00	3.40E-06
2006	Annual	Generator	175	Airport Ground Support Equipment	1.44E-01	0.00E+00	2.32E-05
2006	Annual	Generator	250	Airport Ground Support Equipment	2.16E-01	0.00E+00	2.45E-05
2006	Annual	Generator	500	Airport Ground Support Equipment	3.63E-02	0.00E+00	3.66E-06
2006	Annual	Generator	750	Airport Ground Support Equipment	7.80E-02	0.00E+00	7.98E-06
2006	Annual	Service Truck	175	Airport Ground Support Equipment	5.05E-03	0.00E+00	6.69E-07
2006	Annual	Catering Truck	250	Airport Ground Support Equipment	3.23E-03	0.00E+00	2.21E-07
2006	Annual	Hydrant Truck	175	Airport Ground Support Equipment	1.07E-02	0.00E+00	1.51E-06
2006	Annual	Compressor (GSE)	120	Airport Ground Support Equipment	1.62E-03	0.00E+00	3.58E-07
2006	Annual	Compressor (GSE)	250	Airport Ground Support Equipment	6.61E-04	0.00E+00	6.91E-08

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Compressor (GSE)	500	Airport Ground Support Equipment	5.45E-03	0.00E+00	5.02E-07
2006	Annual	Compressor (GSE)	750	Airport Ground Support Equipment	2.62E-02	0.00E+00	2.47E-06
2006	Annual	Tampers/Rammers	15	Construction and Mining Equipment	1.11E-02	1.62E-05	9.40E-06
2006	Annual	Plate Compactors	15	Construction and Mining Equipment	1.07E-03	1.59E-06	8.51E-07
2006	Annual	Asphalt Pavers	15	Construction and Mining Equipment	1.42E-03	1.44E-06	1.25E-06
2006	Annual	Asphalt Pavers	25	Construction and Mining Equipment	5.92E-03	3.81E-06	5.51E-06
2006	Annual	Asphalt Pavers	50	Construction and Mining Equipment	8.82E-03	3.26E-06	2.94E-06
2006	Annual	Asphalt Pavers	120	Construction and Mining Equipment	9.13E-03	3.07E-06	2.11E-06
2006	Annual	Tampers/Rammers	15	Construction and Mining Equipment	1.15E-03	1.13E-06	1.65E-06
2006	Annual	Plate Compactors	5	Construction and Mining Equipment	1.85E-02	2.93E-05	2.58E-05
2006	Annual	Plate Compactors	15	Construction and Mining Equipment	4.50E-02	4.77E-05	6.06E-05
2006	Annual	Rollers	5	Construction and Mining Equipment	1.34E-03	1.70E-06	1.70E-06
2006	Annual	Rollers	15	Construction and Mining Equipment	1.46E-02	1.50E-05	1.36E-05
2006	Annual	Rollers	25	Construction and Mining Equipment	2.08E-02	1.45E-05	2.00E-05
2006	Annual	Rollers	50	Construction and Mining Equipment	1.07E-02	3.75E-06	4.13E-06
2006	Annual	Rollers	120	Construction and Mining Equipment	4.03E-02	1.24E-05	1.08E-05
2006	Annual	Paving Equipment	5	Construction and Mining Equipment	2.63E-02	4.00E-05	3.62E-05
2006	Annual	Paving Equipment	15	Construction and Mining Equipment	1.31E-01	1.21E-04	1.76E-04
2006	Annual	Paving Equipment	25	Construction and Mining Equipment	6.39E-03	3.84E-06	8.02E-06
2006	Annual	Paving Equipment	50	Construction and Mining Equipment	1.11E-02	3.98E-06	3.08E-06
2006	Annual	Paving Equipment	120	Construction and Mining Equipment	5.06E-03	1.71E-06	9.67E-07
2006	Annual	Surfacing Equipment	5	Construction and Mining Equipment	5.89E-03	8.92E-06	8.31E-06
2006	Annual	Surfacing Equipment	15	Construction and Mining Equipment	7.04E-02	8.79E-05	6.85E-05
2006	Annual	Surfacing Equipment	25	Construction and Mining Equipment	2.29E-03	1.82E-06	2.31E-06
2006	Annual	Surfacing Equipment	5	Construction and Mining Equipment	7.33E-05	8.67E-08	9.57E-08
2006	Annual	Signal Boards	15	Construction and Mining Equipment	1.82E-03	1.80E-06	1.69E-06
2006	Annual	Signal Boards	15	Construction and Mining Equipment	2.80E-02	2.73E-05	2.50E-05
2006	Annual	Trenchers	25	Construction and Mining Equipment	4.55E-02	3.01E-05	4.29E-05
2006	Annual	Trenchers	50	Construction and Mining Equipment	5.44E-02	2.02E-05	1.80E-05
2006	Annual	Trenchers	120	Construction and Mining Equipment	3.92E-02	1.23E-05	8.98E-06
2006	Annual	Bore/Drill Rigs	15	Construction and Mining Equipment	2.74E-04	2.12E-07	3.86E-07
2006	Annual	Bore/Drill Rigs	25	Construction and Mining Equipment	2.45E-03	1.35E-06	3.17E-06
2006	Annual	Bore/Drill Rigs	50	Construction and Mining Equipment	8.93E-04	2.90E-07	2.30E-07
2006	Annual	Bore/Drill Rigs	120	Construction and Mining Equipment	1.11E-02	2.79E-06	1.97E-06
2006	Annual	Bore/Drill Rigs	175	Construction and Mining Equipment	3.84E-03	8.79E-07	3.94E-07
2006	Annual	Concrete/Industrial Saws	5	Construction and Mining Equipment	2.08E-03	2.69E-06	2.71E-06
2006	Annual	Concrete/Industrial Saws	15	Construction and Mining Equipment	5.01E-02	4.64E-05	4.67E-05
2006	Annual	Concrete/Industrial Saws	25	Construction and Mining Equipment	2.96E-02	1.95E-05	2.85E-05
2006	Annual	Concrete/Industrial Saws	50	Construction and Mining Equipment	2.05E-02	3.54E-06	1.58E-06
2006	Annual	Concrete/Industrial Saws	120	Construction and Mining Equipment	2.19E-02	3.03E-06	7.21E-07
2006	Annual	Concrete/Industrial Saws	5	Construction and Mining Equipment	2.52E-02	3.32E-05	3.29E-05
2006	Annual	Concrete/Industrial Saws	15	Construction and Mining Equipment	6.84E-02	6.57E-05	1.17E-04
2006	Annual	Cement and Mortar Mixers	25	Construction and Mining Equipment	9.00E-04	4.74E-07	1.37E-06
2006	Annual	Cement and Mortar Mixers	50	Construction and Mining Equipment	2.71E-03	1.07E-06	9.06E-07
2006	Annual	Cement and Mortar Mixers	120	Construction and Mining Equipment	1.07E-02	3.75E-06	2.47E-06
2006	Annual	Cement and Mortar Mixers	175	Construction and Mining Equipment	7.04E-04	2.10E-07	7.87E-08
2006	Annual	Cement and Mortar Mixers	15	Construction and Mining Equipment	5.60E-04	4.96E-07	5.18E-07
2006	Annual	Cement and Mortar Mixers	25	Construction and Mining Equipment	6.52E-04	4.23E-07	6.24E-07
2006	Annual	Cement and Mortar Mixers	120	Construction and Mining Equipment	8.46E-03	1.97E-06	1.70E-06
2006	Annual	Rough Terrain Forklifts	50	Construction and Mining Equipment	1.84E-03	5.65E-07	6.13E-07
2006	Annual	Rough Terrain Forklifts	120	Construction and Mining Equipment	4.66E-02	1.33E-05	1.08E-05
2006	Annual	Rough Terrain Forklifts	175	Construction and Mining Equipment	2.67E-03	6.54E-07	2.98E-07
2006	Annual	Rubber Tired Loaders	50	Construction and Mining Equipment	4.15E-03	1.51E-06	1.49E-06
2006	Annual	Rubber Tired Loaders	120	Construction and Mining Equipment	4.90E-02	1.66E-05	1.22E-05
2006	Annual	Tractors/Loaders/Backhoes	120	Construction and Mining Equipment	3.44E-02	1.30E-05	9.55E-06
2006	Annual	Skid Steer Loaders	15	Construction and Mining Equipment	1.29E-03	1.10E-06	1.33E-06
2006	Annual	Skid Steer Loaders	25	Construction and Mining Equipment	1.17E-01	8.28E-05	1.21E-04
2006	Annual	Skid Steer Loaders	50	Construction and Mining Equipment	5.89E-02	2.01E-05	1.40E-05
2006	Annual	Skid Steer Loaders	120	Construction and Mining Equipment	8.71E-02	2.35E-05	1.39E-05
2006	Annual	Dumpers/Tenders	5	Construction and Mining Equipment	1.16E-03	2.11E-06	1.66E-06
2006	Annual	Dumpers/Tenders	15	Construction and Mining Equipment	5.57E-03	6.07E-06	9.83E-06
2006	Annual	Dumpers/Tenders	25	Construction and Mining Equipment	2.18E-03	1.56E-06	3.41E-06
2006	Annual	Dumpers/Tenders	120	Construction and Mining Equipment	9.18E-04	3.57E-07	1.66E-07
2006	Annual	Other Construction Equipment	175	Construction and Mining Equipment	2.27E-02	5.52E-06	1.85E-06
2006	Annual	Pavers	25	Construction and Mining Equipment	2.22E-03	0.00E+00	4.42E-07
2006	Annual	Pavers	50	Construction and Mining Equipment	1.98E-01	0.00E+00	1.25E-04
2006	Annual	Pavers	120	Construction and Mining Equipment	5.77E-01	0.00E+00	1.52E-04
2006	Annual	Pavers	175	Construction and Mining Equipment	6.65E-01	0.00E+00	1.16E-04
2006	Annual	Pavers	250	Construction and Mining Equipment	1.21E-01	0.00E+00	1.70E-05
2006	Annual	Pavers	500	Construction and Mining Equipment	1.49E-01	0.00E+00	1.85E-05
2006	Annual	Plate Compactors	15	Construction and Mining Equipment	8.06E-03	0.00E+00	9.55E-07

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Rollers	15	Construction and Mining Equipment	2.57E-02	0.00E+00	2.94E-06
2006	Annual	Rollers	25	Construction and Mining Equipment	2.27E-02	0.00E+00	3.04E-06
2006	Annual	Rollers	50	Construction and Mining Equipment	1.39E-01	0.00E+00	7.69E-05
2006	Annual	Rollers	120	Construction and Mining Equipment	1.69E+00	0.00E+00	3.97E-04
2006	Annual	Rollers	175	Construction and Mining Equipment	1.25E+00	0.00E+00	1.92E-04
2006	Annual	Rollers	250	Construction and Mining Equipment	2.50E-01	0.00E+00	2.95E-05
2006	Annual	Rollers	500	Construction and Mining Equipment	2.51E-01	0.00E+00	2.62E-05
2006	Annual	Scrapers	120	Construction and Mining Equipment	3.97E-02	0.00E+00	1.06E-05
2006	Annual	Scrapers	175	Construction and Mining Equipment	5.73E-01	0.00E+00	1.01E-04
2006	Annual	Scrapers	250	Construction and Mining Equipment	7.90E-01	0.00E+00	1.10E-04
2006	Annual	Scrapers	500	Construction and Mining Equipment	3.34E+00	0.00E+00	4.11E-04
2006	Annual	Scrapers	750	Construction and Mining Equipment	2.88E-01	0.00E+00	3.58E-05
2006	Annual	Paving Equipment	25	Construction and Mining Equipment	2.63E-03	0.00E+00	3.53E-07
2006	Annual	Paving Equipment	50	Construction and Mining Equipment	4.27E-03	0.00E+00	2.67E-06
2006	Annual	Paving Equipment	120	Construction and Mining Equipment	1.40E-01	0.00E+00	3.65E-05
2006	Annual	Paving Equipment	175	Construction and Mining Equipment	1.22E-01	0.00E+00	2.11E-05
2006	Annual	Paving Equipment	250	Construction and Mining Equipment	4.17E-02	0.00E+00	5.78E-06
2006	Annual	Surfacing Equipment	50	Construction and Mining Equipment	1.24E-03	0.00E+00	5.92E-07
2006	Annual	Surfacing Equipment	120	Construction and Mining Equipment	1.12E-03	0.00E+00	2.45E-07
2006	Annual	Surfacing Equipment	175	Construction and Mining Equipment	1.13E-03	0.00E+00	1.62E-07
2006	Annual	Surfacing Equipment	250	Construction and Mining Equipment	3.56E-03	0.00E+00	3.88E-07
2006	Annual	Surfacing Equipment	500	Construction and Mining Equipment	4.86E-02	0.00E+00	4.72E-06
2006	Annual	Surfacing Equipment	750	Construction and Mining Equipment	1.40E-02	0.00E+00	1.38E-06
2006	Annual	Signal Boards	15	Construction and Mining Equipment	1.26E-01	0.00E+00	1.36E-05
2006	Annual	Signal Boards	50	Construction and Mining Equipment	2.62E-03	0.00E+00	1.19E-06
2006	Annual	Signal Boards	120	Construction and Mining Equipment	9.50E-02	0.00E+00	1.99E-05
2006	Annual	Signal Boards	175	Construction and Mining Equipment	1.14E-01	0.00E+00	1.56E-05
2006	Annual	Signal Boards	250	Construction and Mining Equipment	3.96E-02	0.00E+00	3.76E-06
2006	Annual	Trenchers	15	Construction and Mining Equipment	3.79E-03	0.00E+00	4.09E-07
2006	Annual	Trenchers	25	Construction and Mining Equipment	1.55E-02	0.00E+00	1.94E-06
2006	Annual	Trenchers	50	Construction and Mining Equipment	6.09E-01	0.00E+00	3.66E-04
2006	Annual	Trenchers	120	Construction and Mining Equipment	1.63E+00	0.00E+00	4.19E-04
2006	Annual	Trenchers	175	Construction and Mining Equipment	3.95E-01	0.00E+00	6.76E-05
2006	Annual	Trenchers	250	Construction and Mining Equipment	5.48E-02	0.00E+00	7.62E-06
2006	Annual	Trenchers	500	Construction and Mining Equipment	9.76E-02	0.00E+00	1.20E-05
2006	Annual	Trenchers	750	Construction and Mining Equipment	6.61E-03	0.00E+00	8.21E-07
2006	Annual	Bore/Drill Rigs	15	Construction and Mining Equipment	8.11E-04	0.00E+00	9.27E-08
2006	Annual	Bore/Drill Rigs	25	Construction and Mining Equipment	3.76E-03	0.00E+00	5.04E-07
2006	Annual	Bore/Drill Rigs	50	Construction and Mining Equipment	3.34E-02	0.00E+00	1.11E-05
2006	Annual	Bore/Drill Rigs	120	Construction and Mining Equipment	2.55E-01	0.00E+00	4.14E-05
2006	Annual	Bore/Drill Rigs	175	Construction and Mining Equipment	1.08E-01	0.00E+00	1.10E-05
2006	Annual	Bore/Drill Rigs	250	Construction and Mining Equipment	1.24E-01	0.00E+00	7.18E-06
2006	Annual	Bore/Drill Rigs	500	Construction and Mining Equipment	4.55E-01	0.00E+00	2.25E-05
2006	Annual	Bore/Drill Rigs	750	Construction and Mining Equipment	1.43E-01	0.00E+00	7.49E-06
2006	Annual	Bore/Drill Rigs	1000	Construction and Mining Equipment	3.62E-01	0.00E+00	2.77E-05
2006	Annual	Excavators	25	Construction and Mining Equipment	8.21E-03	0.00E+00	9.58E-07
2006	Annual	Excavators	50	Construction and Mining Equipment	4.78E-01	0.00E+00	2.81E-04
2006	Annual	Excavators	120	Construction and Mining Equipment	3.82E+00	0.00E+00	8.97E-04
2006	Annual	Excavators	175	Construction and Mining Equipment	1.12E+01	0.00E+00	1.73E-03
2006	Annual	Excavators	250	Construction and Mining Equipment	6.46E+00	0.00E+00	6.80E-04
2006	Annual	Excavators	500	Construction and Mining Equipment	6.87E+00	0.00E+00	6.45E-04
2006	Annual	Excavators	750	Construction and Mining Equipment	7.63E-02	0.00E+00	7.26E-06
2006	Annual	Concrete/Industrial Saws	25	Construction and Mining Equipment	3.77E-04	0.00E+00	4.70E-08
2006	Annual	Concrete/Industrial Saws	50	Construction and Mining Equipment	5.93E-03	0.00E+00	2.84E-06
2006	Annual	Concrete/Industrial Saws	120	Construction and Mining Equipment	2.54E-02	0.00E+00	5.42E-06
2006	Annual	Concrete/Industrial Saws	175	Construction and Mining Equipment	1.80E-03	0.00E+00	2.52E-07
2006	Annual	Cement and Mortar Mixers	15	Construction and Mining Equipment	9.37E-03	0.00E+00	1.32E-06
2006	Annual	Cement and Mortar Mixers	25	Construction and Mining Equipment	2.34E-03	0.00E+00	5.46E-07
2006	Annual	Cranes	50	Construction and Mining Equipment	9.76E-03	0.00E+00	6.21E-06
2006	Annual	Cranes	120	Construction and Mining Equipment	2.32E-01	0.00E+00	5.88E-05
2006	Annual	Cranes	175	Construction and Mining Equipment	3.71E-01	0.00E+00	6.22E-05
2006	Annual	Cranes	250	Construction and Mining Equipment	1.00E+00	0.00E+00	1.27E-04
2006	Annual	Cranes	500	Construction and Mining Equipment	5.91E-01	0.00E+00	6.65E-05
2006	Annual	Cranes	750	Construction and Mining Equipment	2.23E-01	0.00E+00	2.54E-05
2006	Annual	Cranes	9999	Construction and Mining Equipment	8.97E-01	0.00E+00	1.13E-04
2006	Annual	Graders	50	Construction and Mining Equipment	3.58E-03	0.00E+00	2.15E-06
2006	Annual	Graders	120	Construction and Mining Equipment	6.50E-01	0.00E+00	1.58E-04
2006	Annual	Graders	175	Construction and Mining Equipment	3.67E+00	0.00E+00	5.87E-04
2006	Annual	Graders	250	Construction and Mining Equipment	3.16E+00	0.00E+00	3.70E-04
2006	Annual	Graders	500	Construction and Mining Equipment	1.19E-01	0.00E+00	1.24E-05
2006	Annual	Graders	750	Construction and Mining Equipment	4.13E-03	0.00E+00	4.34E-07

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Off-Highway Trucks	175	Construction and Mining Equipment	1.56E-01	0.00E+00	2.51E-05
2006	Annual	Off-Highway Trucks	250	Construction and Mining Equipment	1.53E+00	0.00E+00	1.71E-04
2006	Annual	Off-Highway Trucks	500	Construction and Mining Equipment	3.53E+00	0.00E+00	3.55E-04
2006	Annual	Off-Highway Trucks	750	Construction and Mining Equipment	1.63E+00	0.00E+00	1.65E-04
2006	Annual	Off-Highway Trucks	1000	Construction and Mining Equipment	1.08E+00	0.00E+00	1.25E-04
2006	Annual	Crushing/Proc. Equipment	50	Construction and Mining Equipment	6.50E-02	0.00E+00	3.63E-05
2006	Annual	Crushing/Proc. Equipment	120	Construction and Mining Equipment	3.46E-01	0.00E+00	8.05E-05
2006	Annual	Crushing/Proc. Equipment	175	Construction and Mining Equipment	2.95E-01	0.00E+00	4.51E-05
2006	Annual	Crushing/Proc. Equipment	250	Construction and Mining Equipment	4.29E-02	0.00E+00	4.53E-06
2006	Annual	Crushing/Proc. Equipment	500	Construction and Mining Equipment	3.69E-01	0.00E+00	3.44E-05
2006	Annual	Crushing/Proc. Equipment	750	Construction and Mining Equipment	8.29E-03	0.00E+00	7.81E-07
2006	Annual	Crushing/Proc. Equipment	9999	Construction and Mining Equipment	1.84E-02	0.00E+00	2.15E-06
2006	Annual	Rough Terrain Forklifts	50	Construction and Mining Equipment	4.12E-02	0.00E+00	2.36E-05
2006	Annual	Rough Terrain Forklifts	120	Construction and Mining Equipment	3.64E+00	0.00E+00	8.44E-04
2006	Annual	Rough Terrain Forklifts	175	Construction and Mining Equipment	9.32E-01	0.00E+00	1.42E-04
2006	Annual	Rough Terrain Forklifts	250	Construction and Mining Equipment	7.11E-02	0.00E+00	7.63E-06
2006	Annual	Rough Terrain Forklifts	500	Construction and Mining Equipment	7.03E-02	0.00E+00	6.68E-06
2006	Annual	Rubber Tired Loaders	25	Construction and Mining Equipment	2.19E-03	0.00E+00	2.73E-07
2006	Annual	Rubber Tired Loaders	50	Construction and Mining Equipment	8.02E-02	0.00E+00	4.77E-05
2006	Annual	Rubber Tired Loaders	120	Construction and Mining Equipment	4.12E+00	0.00E+00	9.92E-04
2006	Annual	Rubber Tired Loaders	175	Construction and Mining Equipment	4.19E+00	0.00E+00	6.64E-04
2006	Annual	Rubber Tired Loaders	250	Construction and Mining Equipment	5.84E+00	0.00E+00	6.74E-04
2006	Annual	Rubber Tired Loaders	500	Construction and Mining Equipment	3.87E+00	0.00E+00	3.95E-04
2006	Annual	Rubber Tired Loaders	750	Construction and Mining Equipment	1.70E-01	0.00E+00	1.76E-05
2006	Annual	Rubber Tired Loaders	1000	Construction and Mining Equipment	2.23E-02	0.00E+00	2.64E-06
2006	Annual	Rubber Tired Dozers	175	Construction and Mining Equipment	2.06E-02	0.00E+00	4.05E-06
2006	Annual	Rubber Tired Dozers	250	Construction and Mining Equipment	7.15E-01	0.00E+00	1.15E-04
2006	Annual	Rubber Tired Dozers	500	Construction and Mining Equipment	1.59E+00	0.00E+00	2.28E-04
2006	Annual	Rubber Tired Dozers	750	Construction and Mining Equipment	2.57E-01	0.00E+00	3.71E-05
2006	Annual	Rubber Tired Dozers	1000	Construction and Mining Equipment	2.58E-02	0.00E+00	3.94E-06
2006	Annual	Tractors/Loaders/Backhoes	25	Construction and Mining Equipment	4.07E-02	0.00E+00	6.72E-06
2006	Annual	Tractors/Loaders/Backhoes	50	Construction and Mining Equipment	4.76E-01	0.00E+00	2.58E-04
2006	Annual	Tractors/Loaders/Backhoes	120	Construction and Mining Equipment	1.09E+01	0.00E+00	2.40E-03
2006	Annual	Tractors/Loaders/Backhoes	175	Construction and Mining Equipment	1.59E+00	0.00E+00	2.30E-04
2006	Annual	Tractors/Loaders/Backhoes	250	Construction and Mining Equipment	8.70E-01	0.00E+00	8.46E-05
2006	Annual	Tractors/Loaders/Backhoes	500	Construction and Mining Equipment	2.82E+00	0.00E+00	2.42E-04
2006	Annual	Tractors/Loaders/Backhoes	750	Construction and Mining Equipment	8.90E-01	0.00E+00	7.80E-05
2006	Annual	Crawler Tractors	50	Construction and Mining Equipment	3.57E-03	0.00E+00	2.35E-06
2006	Annual	Crawler Tractors	120	Construction and Mining Equipment	5.36E+00	0.00E+00	1.42E-03
2006	Annual	Crawler Tractors	175	Construction and Mining Equipment	3.34E+00	0.00E+00	5.89E-04
2006	Annual	Crawler Tractors	250	Construction and Mining Equipment	3.93E+00	0.00E+00	5.39E-04
2006	Annual	Crawler Tractors	500	Construction and Mining Equipment	4.20E+00	0.00E+00	5.12E-04
2006	Annual	Crawler Tractors	750	Construction and Mining Equipment	1.16E-01	0.00E+00	1.43E-05
2006	Annual	Crawler Tractors	1000	Construction and Mining Equipment	1.64E-01	0.00E+00	2.22E-05
2006	Annual	Skid Steer Loaders	25	Construction and Mining Equipment	2.14E-01	0.00E+00	4.75E-05
2006	Annual	Skid Steer Loaders	50	Construction and Mining Equipment	3.68E+00	0.00E+00	1.61E-03
2006	Annual	Skid Steer Loaders	120	Construction and Mining Equipment	3.23E+00	0.00E+00	6.27E-04
2006	Annual	Off-Highway Tractors	120	Construction and Mining Equipment	1.02E-03	0.00E+00	2.90E-07
2006	Annual	Off-Highway Tractors	175	Construction and Mining Equipment	1.74E+00	0.00E+00	3.31E-04
2006	Annual	Off-Highway Tractors	250	Construction and Mining Equipment	1.64E+00	0.00E+00	2.56E-04
2006	Annual	Off-Highway Tractors	750	Construction and Mining Equipment	9.48E-01	0.00E+00	1.32E-04
2006	Annual	Off-Highway Tractors	1000	Construction and Mining Equipment	1.43E-01	0.00E+00	2.13E-05
2006	Annual	Dumpers/Tenders	25	Construction and Mining Equipment	1.17E-03	0.00E+00	2.15E-07
2006	Annual	Other Construction Equipment	15	Construction and Mining Equipment	2.23E-02	0.00E+00	2.55E-06
2006	Annual	Other Construction Equipment	25	Construction and Mining Equipment	4.94E-03	0.00E+00	6.61E-07
2006	Annual	Other Construction Equipment	50	Construction and Mining Equipment	1.64E-02	0.00E+00	7.71E-06
2006	Annual	Other Construction Equipment	120	Construction and Mining Equipment	7.80E-02	0.00E+00	1.61E-05
2006	Annual	Other Construction Equipment	175	Construction and Mining Equipment	1.42E-01	0.00E+00	1.90E-05
2006	Annual	Other Construction Equipment	500	Construction and Mining Equipment	7.86E-01	0.00E+00	6.33E-05
2006	Annual	Compressor (Dredging)	50	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressor (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressor (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressor (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressor (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressor (Dredging)	1000	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Crane (Dredging)	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Deck/door engine	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Dredger	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Dredger	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Dredger	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Dredger	9999	Dredging	0.00E+00	0.00E+00	0.00E+00

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Hoist/swing/winch	50	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Hoist/swing/winch	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Hoist/swing/winch	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Hoist/swing/winch	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Hoist/swing/winch	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Hoist/swing/winch	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Hoist/swing/winch	9999	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Dredging)	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Dredging)	9999	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Dredging)	50	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Dredging)	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Dredging)	9999	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Entertainment)	50	Entertainment Equipment	9.98E-04	0.00E+00	4.11E-07
2006	Annual	Generator (Entertainment)	120	Entertainment Equipment	4.99E-02	0.00E+00	1.01E-05
2006	Annual	Generator (Entertainment)	175	Entertainment Equipment	6.92E-02	0.00E+00	9.17E-06
2006	Annual	Generator (Entertainment)	250	Entertainment Equipment	1.41E-01	0.00E+00	1.39E-05
2006	Annual	Generator (Entertainment)	500	Entertainment Equipment	3.07E-01	0.00E+00	2.74E-05
2006	Annual	Generator (Entertainment)	750	Entertainment Equipment	1.06E-01	0.00E+00	9.65E-06
2006	Annual	Generator (Entertainment)	9999	Entertainment Equipment	2.76E-02	0.00E+00	3.08E-06
2006	Annual	Compressor (Entertainment)	120	Entertainment Equipment	4.82E-04	0.00E+00	1.14E-07
2006	Annual	Other General Industrial Equipment	15	Industrial Equipment	8.72E-04	9.64E-07	6.78E-07
2006	Annual	Aerial Lifts	15	Industrial Equipment	2.33E-04	2.36E-07	2.04E-07
2006	Annual	Aerial Lifts	25	Industrial Equipment	1.45E-02	1.15E-05	1.52E-05
2006	Annual	Aerial Lifts	50	Industrial Equipment	5.42E-02	2.08E-05	1.39E-05
2006	Annual	Aerial Lifts	120	Industrial Equipment	1.09E-01	3.64E-05	1.88E-05
2006	Annual	Forklifts	25	Industrial Equipment	6.46E-04	6.00E-07	6.24E-07
2006	Annual	Forklifts	50	Industrial Equipment	7.30E-01	3.30E-04	2.68E-04
2006	Annual	Forklifts	120	Industrial Equipment	4.33E+00	1.66E-03	1.04E-03
2006	Annual	Forklifts	175	Industrial Equipment	3.21E-01	9.08E-05	3.18E-05
2006	Annual	Sweepers/Scrubbers	15	Industrial Equipment	4.63E-03	4.68E-06	3.88E-06
2006	Annual	Sweepers/Scrubbers	25	Industrial Equipment	1.02E-02	6.83E-06	9.34E-06
2006	Annual	Sweepers/Scrubbers	50	Industrial Equipment	1.18E-01	3.16E-05	2.20E-05
2006	Annual	Sweepers/Scrubbers	120	Industrial Equipment	1.89E-01	4.21E-05	2.21E-05
2006	Annual	Sweepers/Scrubbers	175	Industrial Equipment	2.20E-03	3.68E-07	1.45E-07
2006	Annual	Other General Industrial Equipment	15	Industrial Equipment	9.68E-03	1.14E-05	8.46E-06
2006	Annual	Other General Industrial Equipment	25	Industrial Equipment	8.18E-03	6.40E-06	7.84E-06
2006	Annual	Other General Industrial Equipment	50	Industrial Equipment	3.65E-02	1.29E-05	8.66E-06
2006	Annual	Other General Industrial Equipment	120	Industrial Equipment	3.12E-02	8.00E-06	4.80E-06
2006	Annual	Other General Industrial Equipment	175	Industrial Equipment	6.47E-03	1.21E-06	5.08E-07
2006	Annual	Other Material Handling Equipment	50	Industrial Equipment	3.74E-04	1.32E-07	1.17E-07
2006	Annual	Other Material Handling Equipment	120	Industrial Equipment	2.16E-02	8.08E-06	4.62E-06
2006	Annual	Aerial Lifts	15	Industrial Equipment	4.10E-04	0.00E+00	1.43E-06
2006	Annual	Aerial Lifts	25	Industrial Equipment	2.57E-02	0.00E+00	1.38E-04
2006	Annual	Forklifts	25	Industrial Equipment	6.63E-04	0.00E+00	6.74E-06
2006	Annual	Forklifts	50	Industrial Equipment	1.15E+00	0.00E+00	2.43E-03
2006	Annual	Forklifts	120	Industrial Equipment	6.91E+00	0.00E+00	1.58E-02
2006	Annual	Forklifts	175	Industrial Equipment	5.27E-01	0.00E+00	6.42E-04
2006	Annual	Aerial Lifts	15	Industrial Equipment	9.36E-03	0.00E+00	1.25E-06
2006	Annual	Aerial Lifts	25	Industrial Equipment	1.94E-02	0.00E+00	4.56E-06
2006	Annual	Aerial Lifts	50	Industrial Equipment	1.22E-01	0.00E+00	5.02E-05
2006	Annual	Aerial Lifts	120	Industrial Equipment	2.10E-01	0.00E+00	4.23E-05
2006	Annual	Aerial Lifts	500	Industrial Equipment	1.50E-01	0.00E+00	1.24E-05
2006	Annual	Aerial Lifts	750	Industrial Equipment	2.18E-02	0.00E+00	1.85E-06
2006	Annual	Forklifts	50	Industrial Equipment	1.30E-01	0.00E+00	7.97E-05
2006	Annual	Forklifts	120	Industrial Equipment	4.32E-01	0.00E+00	1.05E-04
2006	Annual	Forklifts	175	Industrial Equipment	7.80E-01	0.00E+00	1.25E-04
2006	Annual	Forklifts	250	Industrial Equipment	1.07E+00	0.00E+00	1.04E-04
2006	Annual	Forklifts	500	Industrial Equipment	6.56E-01	0.00E+00	5.71E-05
2006	Annual	Sweepers/Scrubbers	15	Industrial Equipment	2.79E-03	0.00E+00	2.73E-07

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2	Exhaust	N2O	Exhaust	CH4	Exhaust
2006	Annual	Sweepers/Scrubbers	25	Industrial Equipment	4.59E-03	0.00E+00	5.45E-07			
2006	Annual	Sweepers/Scrubbers	50	Industrial Equipment	2.70E-01	0.00E+00	1.60E-04			
2006	Annual	Sweepers/Scrubbers	120	Industrial Equipment	1.06E+00	0.00E+00	2.53E-04			
2006	Annual	Sweepers/Scrubbers	175	Industrial Equipment	9.06E-01	0.00E+00	1.42E-04			
2006	Annual	Sweepers/Scrubbers	250	Industrial Equipment	1.69E-01	0.00E+00	1.69E-05			
2006	Annual	Other General Industrial Equipment	15	Industrial Equipment	8.61E-03	0.00E+00	8.42E-07			
2006	Annual	Other General Industrial Equipment	25	Industrial Equipment	2.77E-02	0.00E+00	3.21E-06			
2006	Annual	Other General Industrial Equipment	50	Industrial Equipment	4.86E-02	0.00E+00	3.06E-05			
2006	Annual	Other General Industrial Equipment	120	Industrial Equipment	5.54E-01	0.00E+00	1.39E-04			
2006	Annual	Other General Industrial Equipment	175	Industrial Equipment	8.60E-01	0.00E+00	1.43E-04			
2006	Annual	Other General Industrial Equipment	250	Industrial Equipment	1.21E+00	0.00E+00	1.38E-04			
2006	Annual	Other General Industrial Equipment	500	Industrial Equipment	2.37E+00	0.00E+00	2.39E-04			
2006	Annual	Other General Industrial Equipment	750	Industrial Equipment	9.74E-01	0.00E+00	9.99E-05			
2006	Annual	Other General Industrial Equipment	1000	Industrial Equipment	7.58E-01	0.00E+00	9.27E-05			
2006	Annual	Other Material Handling Equipment	50	Industrial Equipment	1.80E-03	0.00E+00	1.12E-06			
2006	Annual	Other Material Handling Equipment	120	Industrial Equipment	2.16E-02	0.00E+00	5.37E-06			
2006	Annual	Other Material Handling Equipment	175	Industrial Equipment	4.65E-02	0.00E+00	7.64E-06			
2006	Annual	Other Material Handling Equipment	250	Industrial Equipment	1.31E-01	0.00E+00	1.49E-05			
2006	Annual	Other Material Handling Equipment	500	Industrial Equipment	3.25E-02	0.00E+00	3.26E-06			
2006	Annual	Other Material Handling Equipment	9999	Industrial Equipment	3.77E-02	0.00E+00	4.59E-06			
2006	Annual	Lawn Mowers	15	Lawn and Garden Equipment	1.60E-01	3.06E-04	2.20E-04			
2006	Annual	Lawn Mowers	15	Lawn and Garden Equipment	8.14E-02	1.02E-04	6.78E-04			
2006	Annual	Chainsaws	2	Lawn and Garden Equipment	1.30E-01	2.15E-04	1.65E-03			
2006	Annual	Chainsaws	2	Lawn and Garden Equipment	2.47E-02	3.94E-05	3.66E-04			
2006	Annual	Chainsaws	15	Lawn and Garden Equipment	2.21E-01	2.42E-04	2.80E-03			
2006	Annual	Chainsaws	15	Lawn and Garden Equipment	4.20E-02	4.30E-05	5.12E-04			
2006	Annual	Chainsaws Preempt	15	Lawn and Garden Equipment	2.75E-01	3.02E-04	3.49E-03			
2006	Annual	Chainsaws Preempt	15	Lawn and Garden Equipment	5.23E-02	4.69E-05	8.11E-04			
2006	Annual	Trimmers/Edgers/Brush Cutters	2	Lawn and Garden Equipment	1.55E-01	2.73E-04	1.08E-03			
2006	Annual	Trimmers/Edgers/Brush Cutters	2	Lawn and Garden Equipment	3.06E-01	6.01E-04	2.25E-03			
2006	Annual	Leaf Blowers/Vacuums	2	Lawn and Garden Equipment	4.16E-01	6.99E-04	4.02E-03			
2006	Annual	Leaf Blowers/Vacuums	2	Lawn and Garden Equipment	2.62E-02	4.24E-05	3.89E-04			
2006	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Shredders	15	Lawn and Garden Equipment	1.39E-02	1.36E-05	9.40E-06			
2006	Annual	Shredders	15	Lawn and Garden Equipment	3.29E-03	2.12E-06	3.46E-05			
2006	Annual	Commercial Turf Equipment	15	Lawn and Garden Equipment	4.08E-02	4.39E-05	3.36E-05			
2006	Annual	Commercial Turf Equipment	25	Lawn and Garden Equipment	4.26E-02	3.09E-05	3.63E-05			
2006	Annual	Other Lawn & Garden Equipment	2	Lawn and Garden Equipment	1.91E-04	3.07E-07	1.20E-06			
2006	Annual	Other Lawn & Garden Equipment	2	Lawn and Garden Equipment	3.66E-04	5.53E-07	5.43E-06			
2006	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	4.15E-04	3.15E-07	2.62E-06			
2006	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	7.98E-04	5.50E-07	9.68E-06			
2006	Annual	Lawn Mowers	5	Lawn and Garden Equipment	9.46E-01	1.81E-03	1.30E-03			
2006	Annual	Lawn Mowers	5	Lawn and Garden Equipment	1.02E+00	1.56E-03	2.07E-03			
2006	Annual	Tillers	5	Lawn and Garden Equipment	2.67E-02	4.46E-05	3.49E-05			
2006	Annual	Tillers	5	Lawn and Garden Equipment	3.34E-02	4.87E-05	7.41E-05			
2006	Annual	Trimmers/Edgers/Brush Cutters	5	Lawn and Garden Equipment	2.56E-02	9.17E-05	3.39E-05			
2006	Annual	Trimmers/Edgers/Brush Cutters	5	Lawn and Garden Equipment	1.89E-02	5.44E-05	5.87E-05			
2006	Annual	Leaf Blowers/Vacuums	5	Lawn and Garden Equipment	5.98E-03	1.40E-05	6.55E-06			
2006	Annual	Leaf Blowers/Vacuums	5	Lawn and Garden Equipment	3.97E-04	7.75E-07	8.03E-07			
2006	Annual	Snowblowers	5	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	5	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00			
2006	Annual	Rear Engine Riding Mowers	15	Lawn and Garden Equipment	1.46E+00	1.80E-03	1.13E-03			
2006	Annual	Rear Engine Riding Mowers	15	Lawn and Garden Equipment	1.33E-01	1.43E-04	1.28E-04			
2006	Annual	Rear Engine Riding Mowers	25	Lawn and Garden Equipment	1.26E-02	1.11E-05	1.03E-05			
2006	Annual	Rear Engine Riding Mowers	25	Lawn and Garden Equipment	1.13E-03	8.47E-07	1.03E-06			
2006	Annual	Front Mowers	15	Lawn and Garden Equipment	1.07E-01	1.06E-04	8.28E-05			
2006	Annual	Front Mowers	15	Lawn and Garden Equipment	3.59E-01	3.11E-04	3.46E-04			
2006	Annual	Front Mowers	25	Lawn and Garden Equipment	1.09E-01	9.16E-05	8.96E-05			
2006	Annual	Front Mowers	25	Lawn and Garden Equipment	3.68E-01	2.63E-04	3.36E-04			
2006	Annual	Shredders	5	Lawn and Garden Equipment	2.46E-02	3.17E-05	3.25E-05			
2006	Annual	Shredders	5	Lawn and Garden Equipment	6.07E-03	5.78E-06	1.19E-05			
2006	Annual	Lawn & Garden Tractors	15	Lawn and Garden Equipment	2.45E-01	2.05E-04	1.64E-04			
2006	Annual	Lawn & Garden Tractors	15	Lawn and Garden Equipment	1.81E-01	1.41E-04	1.44E-04			
2006	Annual	Lawn & Garden Tractors	25	Lawn and Garden Equipment	1.49E-01	9.78E-05	1.06E-04			

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Lawn & Garden Tractors	25	Lawn and Garden Equipment	1.10E-01	6.56E-05	8.57E-05
2006	Annual	Lawn & Garden Tractors	50	Lawn and Garden Equipment	4.69E-03	1.88E-06	1.07E-06
2006	Annual	Wood Splitters	5	Lawn and Garden Equipment	4.30E-02	5.31E-05	5.60E-05
2006	Annual	Wood Splitters	5	Lawn and Garden Equipment	9.19E-03	8.51E-06	1.57E-05
2006	Annual	Chippers/Stump Grinders	15	Lawn and Garden Equipment	1.48E-02	1.29E-05	1.35E-05
2006	Annual	Chippers/Stump Grinders	15	Lawn and Garden Equipment	3.45E-04	2.45E-07	3.81E-07
2006	Annual	Chippers/Stump Grinders	25	Lawn and Garden Equipment	1.37E-01	9.17E-05	1.33E-04
2006	Annual	Chippers/Stump Grinders	25	Lawn and Garden Equipment	3.20E-03	1.71E-06	3.31E-06
2006	Annual	Commercial Turf Equipment	15	Lawn and Garden Equipment	4.49E-01	4.78E-04	4.43E-04
2006	Annual	Commercial Turf Equipment	25	Lawn and Garden Equipment	3.82E-01	3.01E-04	3.89E-04
2006	Annual	Commercial Turf Equipment	50	Lawn and Garden Equipment	3.80E-01	1.63E-04	1.37E-04
2006	Annual	Commercial Turf Equipment	120	Lawn and Garden Equipment	4.70E-03	9.71E-07	2.12E-07
2006	Annual	Other Lawn & Garden Equipment	5	Lawn and Garden Equipment	1.43E-02	2.02E-05	1.73E-05
2006	Annual	Other Lawn & Garden Equipment	5	Lawn and Garden Equipment	2.74E-02	3.09E-05	5.43E-05
2006	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	1.27E-02	1.25E-05	8.69E-06
2006	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	2.44E-02	2.23E-05	1.94E-05
2006	Annual	Other Lawn & Garden Equipment	25	Lawn and Garden Equipment	5.69E-04	3.80E-07	4.10E-07
2006	Annual	Other Lawn & Garden Equipment	25	Lawn and Garden Equipment	1.10E-03	6.71E-07	8.58E-07
2006	Annual	Other Lawn & Garden Equipment	50	Lawn and Garden Equipment	1.42E-04	4.92E-08	3.20E-08
2006	Annual	Other Lawn & Garden Equipment	120	Lawn and Garden Equipment	9.53E-04	2.48E-07	1.47E-07
2006	Annual	Leaf Blowers/Vacuums	15	Lawn and Garden Equipment	3.72E-05	0.00E+00	4.56E-09
2006	Annual	Leaf Blowers/Vacuums	120	Lawn and Garden Equipment	5.26E-04	0.00E+00	9.35E-08
2006	Annual	Leaf Blowers/Vacuums	250	Lawn and Garden Equipment	3.10E-04	0.00E+00	2.57E-08
2006	Annual	Snowblowers	175	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Snowblowers	250	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Lawn & Garden Tractors	500	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Lawn & Garden Tractors	15	Lawn and Garden Equipment	1.26E+00	0.00E+00	1.61E-04
2006	Annual	Chippers/Stump Grinders	25	Lawn and Garden Equipment	1.51E+00	0.00E+00	1.89E-04
2006	Annual	Chippers/Stump Grinders	25	Lawn and Garden Equipment	1.09E-03	0.00E+00	1.36E-07
2006	Annual	Chippers/Stump Grinders	120	Lawn and Garden Equipment	1.13E-01	0.00E+00	2.33E-05
2006	Annual	Chippers/Stump Grinders	175	Lawn and Garden Equipment	1.34E-02	0.00E+00	1.81E-06
2006	Annual	Chippers/Stump Grinders	250	Lawn and Garden Equipment	5.33E-03	0.00E+00	5.25E-07
2006	Annual	Chippers/Stump Grinders	500	Lawn and Garden Equipment	5.47E-02	0.00E+00	4.84E-06
2006	Annual	Chippers/Stump Grinders	750	Lawn and Garden Equipment	1.50E-01	0.00E+00	1.36E-05
2006	Annual	Chippers/Stump Grinders	1000	Lawn and Garden Equipment	4.05E-01	0.00E+00	4.41E-05
2006	Annual	Commercial Turf Equipment	15	Lawn and Garden Equipment	6.45E-02	0.00E+00	7.25E-06
2006	Annual	Commercial Turf Equipment	25	Lawn and Garden Equipment	1.82E+00	0.00E+00	2.11E-04
2006	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	4.77E-04	0.00E+00	5.63E-08
2006	Annual	Other Lawn & Garden Equipment	25	Lawn and Garden Equipment	9.09E-05	0.00E+00	1.08E-08
2006	Annual	Generator Sets	2	Light Commercial Equipment	3.24E-03	7.41E-06	2.67E-05
2006	Annual	Generator Sets	2	Light Commercial Equipment	1.71E-03	3.75E-06	1.71E-05
2006	Annual	Generator Sets	15	Light Commercial Equipment	2.94E-04	2.40E-07	7.36E-07
2006	Annual	Generator Sets	15	Light Commercial Equipment	1.51E-04	1.07E-07	9.21E-07
2006	Annual	Pumps	2	Light Commercial Equipment	2.51E-02	6.40E-05	8.96E-05
2006	Annual	Pumps	2	Light Commercial Equipment	1.32E-02	3.08E-05	9.59E-05
2006	Annual	Pumps	15	Light Commercial Equipment	5.41E-02	4.83E-05	1.08E-04
2006	Annual	Pumps	15	Light Commercial Equipment	2.86E-02	2.33E-05	1.18E-04
2006	Annual	Pumps	25	Light Commercial Equipment	1.39E-03	8.69E-07	1.34E-06
2006	Annual	Pumps	25	Light Commercial Equipment	7.27E-04	4.12E-07	1.92E-06
2006	Annual	Generator Sets	5	Light Commercial Equipment	1.70E-01	2.13E-04	5.71E-04
2006	Annual	Generator Sets	5	Light Commercial Equipment	8.98E-02	1.10E-04	3.20E-04
2006	Annual	Generator Sets	15	Light Commercial Equipment	1.05E+00	9.17E-04	1.60E-03
2006	Annual	Generator Sets	15	Light Commercial Equipment	5.55E-01	4.74E-04	9.24E-04
2006	Annual	Generator Sets	25	Light Commercial Equipment	1.19E+00	6.85E-04	1.64E-03
2006	Annual	Generator Sets	25	Light Commercial Equipment	6.29E-01	3.56E-04	9.35E-04
2006	Annual	Generator Sets	50	Light Commercial Equipment	1.04E+00	3.60E-04	2.53E-04
2006	Annual	Generator Sets	120	Light Commercial Equipment	5.16E-01	1.39E-04	8.60E-05
2006	Annual	Generator Sets	175	Light Commercial Equipment	8.34E-02	1.86E-05	8.12E-06
2006	Annual	Pumps	5	Light Commercial Equipment	8.81E-02	1.35E-04	2.43E-04
2006	Annual	Pumps	5	Light Commercial Equipment	4.65E-02	6.57E-05	1.77E-04
2006	Annual	Pumps	15	Light Commercial Equipment	2.55E-01	2.43E-04	3.71E-04
2006	Annual	Pumps	15	Light Commercial Equipment	1.35E-01	1.23E-04	2.22E-04
2006	Annual	Pumps	25	Light Commercial Equipment	1.39E-01	9.11E-05	1.62E-04
2006	Annual	Pumps	25	Light Commercial Equipment	7.32E-02	4.49E-05	1.01E-04
2006	Annual	Pumps	50	Light Commercial Equipment	1.57E-01	5.69E-05	4.52E-05
2006	Annual	Pumps	120	Light Commercial Equipment	5.92E-01	1.58E-04	1.18E-04
2006	Annual	Pumps	175	Light Commercial Equipment	2.69E-02	6.34E-06	2.92E-06
2006	Annual	Air Compressors	5	Light Commercial Equipment	9.43E-02	1.39E-04	1.43E-04
2006	Annual	Air Compressors	5	Light Commercial Equipment	4.98E-02	7.36E-05	7.53E-05
2006	Annual	Air Compressors	15	Light Commercial Equipment	6.68E-02	8.34E-05	6.50E-05
2006	Annual	Air Compressors	15	Light Commercial Equipment	3.53E-02	4.28E-05	3.68E-05

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Air Compressors	25	Light Commercial Equipment	2.19E-02	1.73E-05	2.20E-05
2006	Annual	Air Compressors	25	Light Commercial Equipment	1.16E-02	8.48E-06	1.37E-05
2006	Annual	Air Compressors	50	Light Commercial Equipment	1.20E-01	4.60E-05	4.35E-05
2006	Annual	Air Compressors	120	Light Commercial Equipment	7.70E-01	2.62E-04	1.94E-04
2006	Annual	Air Compressors	175	Light Commercial Equipment	9.64E-02	2.65E-05	1.13E-05
2006	Annual	Welders	15	Light Commercial Equipment	1.36E-01	1.24E-04	2.35E-04
2006	Annual	Welders	25	Light Commercial Equipment	7.59E-01	5.35E-04	1.09E-03
2006	Annual	Welders	50	Light Commercial Equipment	3.16E-01	1.11E-04	9.15E-05
2006	Annual	Welders	120	Light Commercial Equipment	4.96E-01	1.75E-04	9.96E-05
2006	Annual	Welders	175	Light Commercial Equipment	6.17E-02	1.77E-05	6.72E-06
2006	Annual	Pressure Washers	5	Light Commercial Equipment	7.13E-02	7.62E-05	1.94E-04
2006	Annual	Pressure Washers	5	Light Commercial Equipment	3.77E-02	3.77E-05	1.30E-04
2006	Annual	Pressure Washers	15	Light Commercial Equipment	8.91E-02	7.88E-05	1.36E-04
2006	Annual	Pressure Washers	15	Light Commercial Equipment	4.71E-02	4.08E-05	7.83E-05
2006	Annual	Pressure Washers	25	Light Commercial Equipment	4.30E-02	2.32E-05	5.67E-05
2006	Annual	Pressure Washers	25	Light Commercial Equipment	2.27E-02	1.18E-05	3.36E-05
2006	Annual	Pressure Washers	50	Light Commercial Equipment	1.06E-02	3.55E-06	2.77E-06
2006	Annual	Generator Sets	120	Light Commercial Equipment	3.35E-02	0.00E+00	5.09E-05
2006	Annual	Generator Sets	175	Light Commercial Equipment	4.88E-02	0.00E+00	6.01E-05
2006	Annual	Gas Compressors	50	Light Commercial Equipment	2.15E-01	0.00E+00	2.38E-04
2006	Annual	Gas Compressors	120	Light Commercial Equipment	1.21E+00	0.00E+00	1.34E-03
2006	Annual	Gas Compressors	175	Light Commercial Equipment	3.15E-01	0.00E+00	3.61E-04
2006	Annual	Gas Compressors	250	Light Commercial Equipment	3.25E-01	0.00E+00	4.16E-04
2006	Annual	Gas Compressors	500	Light Commercial Equipment	4.57E-01	0.00E+00	5.86E-04
2006	Annual	Generator Sets	15	Light Commercial Equipment	3.13E-01	0.00E+00	5.75E-05
2006	Annual	Generator Sets	25	Light Commercial Equipment	3.96E-01	0.00E+00	7.46E-05
2006	Annual	Generator Sets	50	Light Commercial Equipment	8.40E-01	0.00E+00	3.33E-04
2006	Annual	Generator Sets	120	Light Commercial Equipment	3.25E+00	0.00E+00	6.44E-04
2006	Annual	Generator Sets	175	Light Commercial Equipment	3.50E-01	0.00E+00	4.53E-05
2006	Annual	Generator Sets	250	Light Commercial Equipment	2.93E-01	0.00E+00	2.63E-05
2006	Annual	Generator Sets	500	Light Commercial Equipment	1.03E+00	0.00E+00	8.34E-05
2006	Annual	Generator Sets	750	Light Commercial Equipment	1.03E+00	0.00E+00	8.61E-05
2006	Annual	Generator Sets	9999	Light Commercial Equipment	5.19E-01	0.00E+00	5.63E-05
2006	Annual	Pumps	15	Light Commercial Equipment	2.04E-01	0.00E+00	4.34E-05
2006	Annual	Pumps	25	Light Commercial Equipment	1.60E-01	0.00E+00	3.94E-05
2006	Annual	Pumps	50	Light Commercial Equipment	4.92E-01	0.00E+00	2.07E-04
2006	Annual	Pumps	120	Light Commercial Equipment	2.19E+00	0.00E+00	4.46E-04
2006	Annual	Pumps	175	Light Commercial Equipment	4.26E-01	0.00E+00	5.67E-05
2006	Annual	Pumps	250	Light Commercial Equipment	4.41E-01	0.00E+00	4.09E-05
2006	Annual	Pumps	500	Light Commercial Equipment	1.49E-02	0.00E+00	1.24E-06
2006	Annual	Pumps	750	Light Commercial Equipment	4.11E-03	0.00E+00	3.51E-07
2006	Annual	Pumps	9999	Light Commercial Equipment	2.15E-01	0.00E+00	2.36E-05
2006	Annual	Air Compressors	15	Light Commercial Equipment	5.47E-03	0.00E+00	1.16E-06
2006	Annual	Air Compressors	25	Light Commercial Equipment	2.17E-02	0.00E+00	5.33E-06
2006	Annual	Air Compressors	50	Light Commercial Equipment	3.03E-01	0.00E+00	1.65E-04
2006	Annual	Air Compressors	120	Light Commercial Equipment	4.26E+00	0.00E+00	9.84E-04
2006	Annual	Air Compressors	175	Light Commercial Equipment	3.04E-01	0.00E+00	4.62E-05
2006	Annual	Air Compressors	250	Light Commercial Equipment	6.34E-01	0.00E+00	6.74E-05
2006	Annual	Air Compressors	500	Light Commercial Equipment	1.46E+00	0.00E+00	1.38E-04
2006	Annual	Air Compressors	750	Light Commercial Equipment	8.45E-01	0.00E+00	8.12E-05
2006	Annual	Air Compressors	1000	Light Commercial Equipment	2.83E-02	0.00E+00	3.32E-06
2006	Annual	Welders	15	Light Commercial Equipment	1.23E-01	0.00E+00	2.62E-05
2006	Annual	Welders	25	Light Commercial Equipment	1.97E-01	0.00E+00	4.85E-05
2006	Annual	Welders	50	Light Commercial Equipment	1.39E+00	0.00E+00	6.97E-04
2006	Annual	Welders	120	Light Commercial Equipment	1.65E+00	0.00E+00	3.65E-04
2006	Annual	Welders	175	Light Commercial Equipment	2.03E-02	0.00E+00	2.95E-06
2006	Annual	Welders	250	Light Commercial Equipment	5.47E-03	0.00E+00	5.57E-07
2006	Annual	Welders	500	Light Commercial Equipment	1.92E-02	0.00E+00	1.74E-06
2006	Annual	Pressure Washers	15	Light Commercial Equipment	2.99E-03	0.00E+00	5.48E-07
2006	Annual	Pressure Washers	25	Light Commercial Equipment	1.02E-03	0.00E+00	1.92E-07
2006	Annual	Pressure Washers	50	Light Commercial Equipment	4.04E-03	0.00E+00	1.31E-06
2006	Annual	Pressure Washers	120	Light Commercial Equipment	2.81E-03	0.00E+00	5.11E-07
2006	Annual	Chainsaws	15	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Shredders	15	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Shredders	175	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Skidders	120	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Skidders	175	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Skidders	250	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Skidders	500	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Fellers/Bunchers	120	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Fellers/Bunchers	175	Logging Equipment	0.00E+00	0.00E+00	0.00E+00

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Fellers/Bunchers	250	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Fellers/Bunchers	500	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Fellers/Bunchers	750	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	A/C unit	120	Military Tactical Support Equip	9.02E-03	0.00E+00	1.79E-06
2006	Annual	A/C unit	250	Military Tactical Support Equip	7.75E-03	0.00E+00	7.49E-07
2006	Annual	A/C unit	500	Military Tactical Support Equip	4.64E-03	0.00E+00	4.07E-07
2006	Annual	Aircraft Support	120	Military Tactical Support Equip	1.65E-03	0.00E+00	3.28E-07
2006	Annual	Aircraft Support	175	Military Tactical Support Equip	4.85E-03	0.00E+00	6.32E-07
2006	Annual	Cart	120	Military Tactical Support Equip	8.42E-04	0.00E+00	1.67E-07
2006	Annual	Cart	175	Military Tactical Support Equip	3.98E-04	0.00E+00	5.18E-08
2006	Annual	Cart	250	Military Tactical Support Equip	1.71E-03	0.00E+00	1.65E-07
2006	Annual	Communications	50	Military Tactical Support Equip	1.39E-04	0.00E+00	5.50E-08
2006	Annual	Communications	120	Military Tactical Support Equip	4.16E-04	0.00E+00	8.27E-08
2006	Annual	Compressor (Military)	50	Military Tactical Support Equip	1.70E-04	0.00E+00	6.74E-08
2006	Annual	Compressor (Military)	120	Military Tactical Support Equip	9.29E-03	0.00E+00	1.85E-06
2006	Annual	Compressor (Military)	175	Military Tactical Support Equip	5.79E-04	0.00E+00	7.53E-08
2006	Annual	Compressor (Military)	250	Military Tactical Support Equip	1.55E-03	0.00E+00	1.49E-07
2006	Annual	Compressor (Military)	500	Military Tactical Support Equip	9.05E-03	0.00E+00	7.94E-07
2006	Annual	Crane	120	Military Tactical Support Equip	1.46E-03	0.00E+00	2.35E-07
2006	Annual	Crane	175	Military Tactical Support Equip	3.67E-04	0.00E+00	3.74E-08
2006	Annual	Crane	250	Military Tactical Support Equip	3.71E-04	0.00E+00	2.13E-08
2006	Annual	Deicer	120	Military Tactical Support Equip	3.81E-04	0.00E+00	7.58E-08
2006	Annual	Generator (Military)	50	Military Tactical Support Equip	8.89E-04	0.00E+00	3.53E-07
2006	Annual	Generator (Military)	120	Military Tactical Support Equip	4.83E-02	0.00E+00	9.61E-06
2006	Annual	Generator (Military)	175	Military Tactical Support Equip	6.89E-02	0.00E+00	8.97E-06
2006	Annual	Generator (Military)	250	Military Tactical Support Equip	2.76E-02	0.00E+00	2.67E-06
2006	Annual	Generator (Military)	500	Military Tactical Support Equip	1.75E-02	0.00E+00	1.53E-06
2006	Annual	Generator (Military)	750	Military Tactical Support Equip	9.25E-04	0.00E+00	8.32E-08
2006	Annual	Hydraulic unit	120	Military Tactical Support Equip	5.52E-03	0.00E+00	1.10E-06
2006	Annual	Lift (Military)	120	Military Tactical Support Equip	1.65E-04	0.00E+00	3.27E-08
2006	Annual	Light	50	Military Tactical Support Equip	2.17E-04	0.00E+00	8.60E-08
2006	Annual	Pressure Washers	175	Military Tactical Support Equip	3.95E-04	0.00E+00	5.14E-08
2006	Annual	Pump (Military)	50	Military Tactical Support Equip	1.96E-03	0.00E+00	7.78E-07
2006	Annual	Pump (Military)	120	Military Tactical Support Equip	3.90E-03	0.00E+00	7.75E-07
2006	Annual	Start Cart	120	Military Tactical Support Equip	8.67E-05	0.00E+00	1.72E-08
2006	Annual	Start Cart	500	Military Tactical Support Equip	2.45E-04	0.00E+00	2.15E-08
2006	Annual	Test Stand	120	Military Tactical Support Equip	2.63E-03	0.00E+00	5.23E-07
2006	Annual	Test Stand	175	Military Tactical Support Equip	2.46E-04	0.00E+00	3.20E-08
2006	Annual	Test Stand	250	Military Tactical Support Equip	5.29E-03	0.00E+00	5.11E-07
2006	Annual	Test Stand	500	Military Tactical Support Equip	3.57E-03	0.00E+00	3.13E-07
2006	Annual	Welder	50	Military Tactical Support Equip	6.37E-04	0.00E+00	2.53E-07
2006	Annual	Welder	120	Military Tactical Support Equip	3.12E-03	0.00E+00	6.19E-07
2006	Annual	Other tactical support equipment	50	Military Tactical Support Equip	4.33E-05	0.00E+00	1.72E-08
2006	Annual	Other tactical support equipment	120	Military Tactical Support Equip	1.10E-03	0.00E+00	2.18E-07
2006	Annual	Other tactical support equipment	175	Military Tactical Support Equip	2.05E-03	0.00E+00	2.67E-07
2006	Annual	Other tactical support equipment	250	Military Tactical Support Equip	1.13E-03	0.00E+00	1.10E-07
2006	Annual	Other tactical support equipment	500	Military Tactical Support Equip	4.68E-04	0.00E+00	4.11E-08
2006	Annual	Other tactical support equipment	750	Military Tactical Support Equip	5.43E-04	0.00E+00	4.88E-08
2006	Annual	Compressors (Workover)	25	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressors (Workover)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressors (Workover)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressors (Workover)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressors (Workover)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressors (Workover)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Compressors (Workover)	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Workover)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Workover)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Workover)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Workover)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Workover)	9999	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Workover)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Workover)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Workover)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Workover)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Workover)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Workover)	9999	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Swivel	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Swivel	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Swivel	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Swivel	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Snubbing	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Other Workover Equipment	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other Workover Equipment	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other Workover Equipment	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other Workover Equipment	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Other Workover Equipment	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Lift (Drilling)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Lift (Drilling)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Lift (Drilling)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Lift (Drilling)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Lift (Drilling)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Drilling)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Drilling)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Drilling)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Drilling)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Drilling)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pump (Drilling)	9999	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Drilling)	50	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Drilling)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Drilling)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Drilling)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Drilling)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Generator (Drilling)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	50	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	50	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Drill Rig (Mobile)	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Workover Rig (Mobile)	50	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Workover Rig (Mobile)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Workover Rig (Mobile)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Workover Rig (Mobile)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Workover Rig (Mobile)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Workover Rig (Mobile)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Workover Rig (Mobile)	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Pressure Washers	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Misc Portable Equipment	120	Other Portable Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Misc Portable Equipment	175	Other Portable Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Misc Portable Equipment	250	Other Portable Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Misc Portable Equipment	500	Other Portable Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Misc Portable Equipment	750	Other Portable Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Misc Portable Equipment	1000	Other Portable Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Vessels w/Outboard Engines	2	Pleasure Craft	4.99E-03	4.43E-06	1.03E-04
2006	Annual	Vessels w/Outboard Engines	15	Pleasure Craft	8.29E-01	9.81E-04	1.37E-02
2006	Annual	Vessels w/Outboard Engines	25	Pleasure Craft	7.51E-01	5.95E-04	8.13E-03
2006	Annual	Vessels w/Outboard Engines	50	Pleasure Craft	2.47E+00	9.20E-04	1.30E-02
2006	Annual	Vessels w/Outboard Engines	120	Pleasure Craft	4.59E+00	1.24E-03	2.23E-02
2006	Annual	Vessels w/Outboard Engines	175	Pleasure Craft	3.78E+00	7.21E-04	1.86E-02
2006	Annual	Vessels w/Outboard Engines	250	Pleasure Craft	1.43E+00	2.85E-04	7.02E-03
2006	Annual	Vessels w/Outboard Engines	500	Pleasure Craft	4.03E-01	2.87E-05	2.16E-03
2006	Annual	Sailboat Auxiliary Outboard Engin	15	Pleasure Craft	2.27E-03	2.59E-06	3.63E-05
2006	Annual	Sailboat Auxiliary Outboard Engin	25	Pleasure Craft	3.05E-03	2.59E-06	3.21E-05
2006	Annual	Sailboat Auxiliary Outboard Engin	50	Pleasure Craft	1.03E-02	4.03E-06	5.25E-05
2006	Annual	Personal Water Craft	9999	Pleasure Craft	1.03E+01	2.75E-03	4.70E-02
2006	Annual	Vessels w/Inboard Engines	250	Pleasure Craft	1.94E+01	4.58E-03	7.14E-03
2006	Annual	Vessels w/Outboard Engines	50	Pleasure Craft	5.11E-01	2.23E-04	2.39E-04
2006	Annual	Vessels w/Sterndrive Engines	250	Pleasure Craft	2.92E+01	7.82E-03	1.10E-02
2006	Annual	Sailboat Auxiliary Inboard Engine	15	Pleasure Craft	6.39E-03	4.88E-06	3.02E-06
2006	Annual	Vessels w/Inboard Jet Engines	500	Pleasure Craft	6.05E+00	1.30E-03	2.30E-03
2006	Annual	Vessels w/Inboard Engines	250	Pleasure Craft	1.55E+00	0.00E+00	7.71E-04
2006	Annual	Sailboat Auxiliary Inboard Engine	50	Pleasure Craft	1.61E-02	0.00E+00	7.99E-06
2006	Annual	Compressor (Railyard)	120	Railyard Operations	8.97E-04	0.00E+00	2.13E-07
2006	Annual	Crane (Rail-CHE)	120	Railyard Operations	7.44E-04	0.00E+00	1.76E-07
2006	Annual	Crane (Rail-CHE)	175	Railyard Operations	1.18E-03	0.00E+00	1.56E-07

Table GHG-8c: OFFROAD Model Output for Monterey County for 2006

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2006	Annual	Materials Handling (Rail-CHE)	120	Railyard Operations	8.16E-04	0.00E+00	1.93E-07
2006	Annual	Generator (Railyard)	175	Railyard Operations	7.96E-04	0.00E+00	1.05E-07
2006	Annual	Generator (Railyard)	9999	Railyard Operations	5.03E-03	0.00E+00	5.61E-07
2006	Annual	Off-Road Motorcycles Inactive	15	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Off-Road Motorcycles Inactive	25	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Off-Road Motorcycles Inactive	50	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Off-Road Motorcycles Inactive	120	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Snowmobiles Inactive	25	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Snowmobiles Inactive	50	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Snowmobiles Inactive	120	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	All Terrain Vehicles (ATVs) Inactive	15	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	All Terrain Vehicles (ATVs) Inactive	25	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	All Terrain Vehicles (ATVs) Inactive	50	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Off-Road Motorcycles Inactive	15	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Off-Road Motorcycles Inactive	25	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Off-Road Motorcycles Inactive	50	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	All Terrain Vehicles (ATVs) Inactive	15	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	All Terrain Vehicles (ATVs) Inactive	25	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	All Terrain Vehicles (ATVs) Inactive	50	Recreational Equipment	0.00E+00	0.00E+00	0.00E+00
2006	Annual	Off-Road Motorcycles Active	15	Recreational Equipment	8.93E-02	3.02E-05	1.67E-03
2006	Annual	Off-Road Motorcycles Active	25	Recreational Equipment	7.68E-02	2.60E-05	1.44E-03
2006	Annual	Off-Road Motorcycles Active	50	Recreational Equipment	6.26E-01	2.11E-04	1.17E-02
2006	Annual	Off-Road Motorcycles Active	120	Recreational Equipment	2.99E-01	1.01E-04	5.60E-03
2006	Annual	Snowmobiles Active	25	Recreational Equipment	1.62E-03	8.35E-07	3.59E-05
2006	Annual	Snowmobiles Active	50	Recreational Equipment	1.45E-02	5.54E-06	3.22E-04
2006	Annual	Snowmobiles Active	120	Recreational Equipment	4.51E-02	1.78E-05	7.32E-04
2006	Annual	All Terrain Vehicles (ATVs) Active	15	Recreational Equipment	9.73E-02	3.29E-05	1.82E-03
2006	Annual	All Terrain Vehicles (ATVs) Active	25	Recreational Equipment	6.34E-02	2.14E-05	1.18E-03
2006	Annual	All Terrain Vehicles (ATVs) Active	50	Recreational Equipment	8.34E-02	2.81E-05	1.56E-03
2006	Annual	Golf Carts	15	Recreational Equipment	4.05E+00	4.33E-03	4.65E-03
2006	Annual	Specialty Vehicles Carts	15	Recreational Equipment	5.45E-01	5.61E-04	3.51E-04
2006	Annual	Off-Road Motorcycles Active	15	Recreational Equipment	1.74E-01	4.69E-04	1.09E-04
2006	Annual	Off-Road Motorcycles Active	25	Recreational Equipment	2.81E-01	7.56E-04	1.75E-04
2006	Annual	Off-Road Motorcycles Active	50	Recreational Equipment	2.93E-01	7.88E-04	1.83E-04
2006	Annual	All Terrain Vehicles (ATVs) Active	15	Recreational Equipment	7.94E-02	2.44E-04	5.73E-05
2006	Annual	All Terrain Vehicles (ATVs) Active	25	Recreational Equipment	1.10E+00	3.40E-03	7.98E-04
2006	Annual	All Terrain Vehicles (ATVs) Active	50	Recreational Equipment	4.99E-02	1.53E-04	3.60E-05
2006	Annual	Minibikes	5	Recreational Equipment	4.78E-03	3.38E-05	3.13E-04
2006	Annual	Golf Carts	15	Recreational Equipment	3.17E+00	3.62E-03	4.12E-03
2006	Annual	Specialty Vehicles Carts	5	Recreational Equipment	1.20E-02	1.48E-05	1.33E-05
2006	Annual	Specialty Vehicles Carts	15	Recreational Equipment	2.29E-01	2.35E-04	1.47E-04
2006	Annual	Specialty Vehicles Carts	25	Recreational Equipment	3.41E-01	2.11E-04	2.32E-04
2006	Annual	Transport Refrigeration Units	15	Transport Refrigeration Units	3.73E-01	3.86E-04	3.41E-04
2006	Annual	Transport Refrigeration Units	15	Transport Refrigeration Units	8.17E-01	0.00E+00	1.07E-04
2006	Annual	Transport Refrigeration Units	25	Transport Refrigeration Units	5.35E-01	0.00E+00	6.89E-05
2006	Annual	Transport Refrigeration Units	50	Transport Refrigeration Units	2.67E+01	0.00E+00	1.09E-02
					5.81E+02	6.09E-02	3.42E-01
					212,034	6,895	2,621

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	2-Wheel Tractors	5	Agricultural Equipment	1.82E-02	2.70E-05	2.50E-05
2030	Annual	2-Wheel Tractors	15	Agricultural Equipment	8.80E-02	9.71E-05	7.72E-05
2030	Annual	2-Wheel Tractors	25	Agricultural Equipment	4.72E-03	3.62E-06	4.37E-06
2030	Annual	Agricultural Tractors	120	Agricultural Equipment	7.83E-01	9.13E-05	4.53E-05
2030	Annual	Agricultural Tractors	175	Agricultural Equipment	1.59E-01	1.58E-05	8.74E-06
2030	Annual	Combines	120	Agricultural Equipment	6.69E-02	4.28E-06	1.67E-06
2030	Annual	Combines	175	Agricultural Equipment	5.75E-02	3.17E-06	1.07E-06
2030	Annual	Combines	250	Agricultural Equipment	1.22E-02	1.07E-06	1.94E-07
2030	Annual	Balers	50	Agricultural Equipment	1.35E-01	2.26E-05	9.34E-06
2030	Annual	Balers	120	Agricultural Equipment	1.25E-01	1.21E-05	3.47E-06
2030	Annual	Agricultural Mowers	15	Agricultural Equipment	3.30E-02	4.09E-05	2.88E-05
2030	Annual	Agricultural Mowers	25	Agricultural Equipment	6.07E-02	4.95E-05	5.60E-05
2030	Annual	Sprayers	5	Agricultural Equipment	3.55E-02	5.76E-05	4.79E-05
2030	Annual	Sprayers	15	Agricultural Equipment	1.93E-02	2.49E-05	1.67E-05
2030	Annual	Sprayers	25	Agricultural Equipment	1.21E-01	9.90E-05	1.11E-04
2030	Annual	Sprayers	50	Agricultural Equipment	2.57E-02	4.64E-06	1.81E-06
2030	Annual	Sprayers	120	Agricultural Equipment	8.83E-02	8.79E-06	2.52E-06
2030	Annual	Sprayers	175	Agricultural Equipment	3.98E-02	3.03E-06	8.25E-07
2030	Annual	Tillers	15	Agricultural Equipment	2.17E+00	1.90E-03	1.28E-03
2030	Annual	Swathers	120	Agricultural Equipment	4.56E-01	4.01E-05	1.34E-05
2030	Annual	Swathers	175	Agricultural Equipment	4.98E-01	3.92E-05	1.09E-05
2030	Annual	Hydro Power Units	5	Agricultural Equipment	5.34E-03	7.52E-06	7.40E-06
2030	Annual	Hydro Power Units	15	Agricultural Equipment	4.52E-02	5.32E-05	4.08E-05
2030	Annual	Hydro Power Units	25	Agricultural Equipment	3.66E-02	2.91E-05	3.49E-05
2030	Annual	Hydro Power Units	50	Agricultural Equipment	9.29E-03	1.50E-06	7.03E-07
2030	Annual	Hydro Power Units	120	Agricultural Equipment	1.99E-03	1.85E-07	5.32E-08
2030	Annual	Other Agricultural Equipment	5	Agricultural Equipment	2.42E-03	3.76E-06	3.26E-06
2030	Annual	Other Agricultural Equipment	15	Agricultural Equipment	5.30E-03	5.53E-06	4.59E-06
2030	Annual	Other Agricultural Equipment	25	Agricultural Equipment	3.38E-03	2.21E-06	3.09E-06
2030	Annual	Other Agricultural Equipment	50	Agricultural Equipment	6.36E-03	1.14E-06	4.39E-07
2030	Annual	Other Agricultural Equipment	120	Agricultural Equipment	8.41E-02	7.80E-06	2.23E-06
2030	Annual	Other Agricultural Equipment	175	Agricultural Equipment	1.89E-02	1.34E-06	3.89E-07
2030	Annual	Other Agricultural Equipment	250	Agricultural Equipment	1.24E-02	1.12E-06	2.06E-07
2030	Annual	Agricultural Tractors	15	Agricultural Equipment	2.93E+00	0.00E+00	3.08E-04
2030	Annual	Agricultural Tractors	25	Agricultural Equipment	6.94E+00	0.00E+00	7.55E-04
2030	Annual	Agricultural Tractors	50	Agricultural Equipment	2.45E+01	0.00E+00	1.50E-03
2030	Annual	Agricultural Tractors	120	Agricultural Equipment	6.03E+01	0.00E+00	2.03E-03
2030	Annual	Agricultural Tractors	175	Agricultural Equipment	5.81E+01	0.00E+00	1.45E-03
2030	Annual	Agricultural Tractors	250	Agricultural Equipment	5.36E+01	0.00E+00	1.23E-03
2030	Annual	Agricultural Tractors	500	Agricultural Equipment	1.74E+01	0.00E+00	3.96E-04
2030	Annual	Combines	120	Agricultural Equipment	5.23E-01	0.00E+00	1.14E-05
2030	Annual	Combines	175	Agricultural Equipment	1.02E+00	0.00E+00	1.62E-05
2030	Annual	Combines	250	Agricultural Equipment	1.54E+00	0.00E+00	2.23E-05
2030	Annual	Combines	500	Agricultural Equipment	8.44E-02	0.00E+00	1.21E-06
2030	Annual	Balers	50	Agricultural Equipment	2.40E-04	0.00E+00	7.28E-09
2030	Annual	Balers	120	Agricultural Equipment	2.54E-01	0.00E+00	5.00E-06
2030	Annual	Agricultural Mowers	120	Agricultural Equipment	2.92E-02	0.00E+00	8.66E-07
2030	Annual	Sprayers	25	Agricultural Equipment	1.41E-02	0.00E+00	1.54E-06
2030	Annual	Sprayers	50	Agricultural Equipment	4.95E-03	0.00E+00	1.48E-07
2030	Annual	Sprayers	120	Agricultural Equipment	1.20E-01	0.00E+00	2.33E-06
2030	Annual	Sprayers	175	Agricultural Equipment	8.36E-02	0.00E+00	1.19E-06
2030	Annual	Sprayers	250	Agricultural Equipment	8.57E-02	0.00E+00	1.11E-06
2030	Annual	Sprayers	500	Agricultural Equipment	1.60E-02	0.00E+00	2.04E-07
2030	Annual	Tillers	15	Agricultural Equipment	4.38E-04	0.00E+00	4.10E-08
2030	Annual	Tillers	250	Agricultural Equipment	1.43E-03	0.00E+00	2.16E-08
2030	Annual	Tillers	500	Agricultural Equipment	7.67E-03	0.00E+00	1.14E-07
2030	Annual	Swathers	120	Agricultural Equipment	1.57E+00	0.00E+00	3.17E-05
2030	Annual	Swathers	175	Agricultural Equipment	2.69E-02	0.00E+00	3.97E-07
2030	Annual	Hydro Power Units	15	Agricultural Equipment	9.88E-03	0.00E+00	1.04E-06
2030	Annual	Hydro Power Units	25	Agricultural Equipment	5.67E-02	0.00E+00	6.17E-06
2030	Annual	Hydro Power Units	50	Agricultural Equipment	1.13E-01	0.00E+00	9.09E-06
2030	Annual	Hydro Power Units	120	Agricultural Equipment	2.08E-02	0.00E+00	8.77E-07
2030	Annual	Other Agricultural Equipment	15	Agricultural Equipment	2.52E-02	0.00E+00	2.65E-06
2030	Annual	Other Agricultural Equipment	25	Agricultural Equipment	1.29E-01	0.00E+00	1.40E-05
2030	Annual	Other Agricultural Equipment	50	Agricultural Equipment	1.75E-01	0.00E+00	9.48E-06
2030	Annual	Other Agricultural Equipment	120	Agricultural Equipment	1.18E+00	0.00E+00	3.58E-05
2030	Annual	Other Agricultural Equipment	175	Agricultural Equipment	1.78E-01	0.00E+00	3.99E-06
2030	Annual	Other Agricultural Equipment	250	Agricultural Equipment	2.58E-01	0.00E+00	5.29E-06
2030	Annual	Other Agricultural Equipment	500	Agricultural Equipment	8.96E-02	0.00E+00	1.82E-06
2030	Annual	Cargo Tractor	120	Airport Ground Support Equipment	7.12E-01	1.19E-04	3.94E-05
2030	Annual	A/C Tug Narrow Body	175	Airport Ground Support Equipment	7.22E-02	7.85E-06	2.47E-06
2030	Annual	A/C Tug Wide Body	500	Airport Ground Support Equipment	6.30E-02	3.50E-06	1.29E-06
2030	Annual	Air Conditioner	175	Airport Ground Support Equipment	6.47E-05	6.59E-09	9.39E-10
2030	Annual	Air Start Unit	175	Airport Ground Support Equipment	6.12E-03	5.77E-07	9.81E-08
2030	Annual	Baggage Tug	120	Airport Ground Support Equipment	6.37E-01	8.86E-05	2.17E-05
2030	Annual	Belt Loader	120	Airport Ground Support Equipment	1.52E-01	2.82E-05	5.28E-06
2030	Annual	Bobtail	120	Airport Ground Support Equipment	1.02E-01	1.42E-05	3.49E-06
2030	Annual	Cargo Loader	120	Airport Ground Support Equipment	4.19E-02	7.23E-06	1.45E-06
2030	Annual	Cart	15	Airport Ground Support Equipment	2.83E-04	2.26E-07	1.66E-07
2030	Annual	Deicer	120	Airport Ground Support Equipment	1.57E-03	1.56E-07	3.56E-08
2030	Annual	Forklift	50	Airport Ground Support Equipment	1.73E-02	4.31E-06	1.53E-06
2030	Annual	Fuel Truck	175	Airport Ground Support Equipment	6.77E-04	1.15E-07	9.79E-09

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Ground Power Unit	175	Airport Ground Support Equipment	1.08E-01	1.06E-05	2.27E-06
2030	Annual	Lav Cart	15	Airport Ground Support Equipment	2.45E-05	1.96E-08	1.43E-08
2030	Annual	Lav Truck	175	Airport Ground Support Equipment	5.81E-02	1.07E-05	1.88E-06
2030	Annual	Lift	120	Airport Ground Support Equipment	5.20E-02	7.61E-06	1.88E-06
2030	Annual	Maint. Truck	175	Airport Ground Support Equipment	5.51E-02	7.06E-06	1.28E-06
2030	Annual	Other GSE	50	Airport Ground Support Equipment	1.33E-02	2.38E-06	1.02E-06
2030	Annual	Passenger Stand	175	Airport Ground Support Equipment	1.78E-02	2.12E-06	3.40E-07
2030	Annual	Sweeper	120	Airport Ground Support Equipment	1.25E-03	2.43E-07	4.47E-08
2030	Annual	Generator	120	Airport Ground Support Equipment	5.98E-03	7.90E-07	3.37E-07
2030	Annual	Service Truck	250	Airport Ground Support Equipment	1.60E-01	2.98E-05	6.15E-06
2030	Annual	Catering Truck	250	Airport Ground Support Equipment	1.15E-01	1.32E-05	5.00E-06
2030	Annual	Water Truck	175	Airport Ground Support Equipment	4.44E-03	8.19E-07	1.00E-07
2030	Annual	Hydrant truck	175	Airport Ground Support Equipment	1.19E-01	1.56E-05	6.77E-06
2030	Annual	Cargo Tractor	175	Airport Ground Support Equipment	1.27E-02	0.00E+00	2.85E-06
2030	Annual	Air Conditioner	175	Airport Ground Support Equipment	3.48E-04	0.00E+00	5.97E-08
2030	Annual	Baggage Tug	120	Airport Ground Support Equipment	1.05E-01	0.00E+00	8.31E-05
2030	Annual	Belt Loader	120	Airport Ground Support Equipment	1.01E-02	0.00E+00	5.96E-06
2030	Annual	Bobtail	120	Airport Ground Support Equipment	2.52E-03	0.00E+00	1.12E-06
2030	Annual	Cargo Loader	120	Airport Ground Support Equipment	8.90E-03	0.00E+00	8.39E-06
2030	Annual	Forklift	50	Airport Ground Support Equipment	3.50E-02	0.00E+00	1.35E-05
2030	Annual	Fuel Truck	175	Airport Ground Support Equipment	2.13E-03	0.00E+00	8.16E-07
2030	Annual	Lav Truck	175	Airport Ground Support Equipment	1.21E-03	0.00E+00	3.81E-07
2030	Annual	Lift	120	Airport Ground Support Equipment	1.54E-03	0.00E+00	6.70E-07
2030	Annual	Other	50	Airport Ground Support Equipment	1.20E-02	0.00E+00	1.13E-05
2030	Annual	Passenger Stand	175	Airport Ground Support Equipment	4.86E-05	0.00E+00	8.16E-09
2030	Annual	Sweeper	50	Airport Ground Support Equipment	2.66E-04	0.00E+00	9.07E-08
2030	Annual	Service Truck	250	Airport Ground Support Equipment	2.23E-02	0.00E+00	1.12E-05
2030	Annual	Catering Truck	250	Airport Ground Support Equipment	8.78E-03	0.00E+00	2.98E-06
2030	Annual	Cargo Tractor	120	Airport Ground Support Equipment	3.75E-02	0.00E+00	1.87E-06
2030	Annual	A/C Tug Narrow Body	250	Airport Ground Support Equipment	2.90E-01	0.00E+00	1.48E-05
2030	Annual	A/C Tug Wide Body	500	Airport Ground Support Equipment	1.63E-01	0.00E+00	8.13E-06
2030	Annual	Air Conditioner	175	Airport Ground Support Equipment	4.87E-02	0.00E+00	9.45E-07
2030	Annual	Air Conditioner	250	Airport Ground Support Equipment	5.49E-03	0.00E+00	1.06E-07
2030	Annual	Air Conditioner	500	Airport Ground Support Equipment	7.33E-03	0.00E+00	1.41E-07
2030	Annual	Air Start Unit	175	Airport Ground Support Equipment	5.51E-04	0.00E+00	1.08E-08
2030	Annual	Air Start Unit	250	Airport Ground Support Equipment	2.36E-03	0.00E+00	4.32E-08
2030	Annual	Air Start Unit	500	Airport Ground Support Equipment	1.86E-01	0.00E+00	3.38E-06
2030	Annual	Air Start Unit	750	Airport Ground Support Equipment	4.02E-02	0.00E+00	7.31E-07
2030	Annual	Baggage Tug	120	Airport Ground Support Equipment	3.56E-01	0.00E+00	2.68E-05
2030	Annual	Belt Loader	120	Airport Ground Support Equipment	8.36E-02	0.00E+00	5.10E-06
2030	Annual	Bobtail	120	Airport Ground Support Equipment	9.85E-03	0.00E+00	5.54E-07
2030	Annual	Cargo Loader	120	Airport Ground Support Equipment	1.76E-01	0.00E+00	8.44E-06
2030	Annual	Forklift	175	Airport Ground Support Equipment	1.85E-02	0.00E+00	5.23E-07
2030	Annual	Fuel Truck	250	Airport Ground Support Equipment	8.47E-03	0.00E+00	2.08E-07
2030	Annual	Ground Power Unit	175	Airport Ground Support Equipment	5.08E-01	0.00E+00	1.49E-05
2030	Annual	Lav Truck	175	Airport Ground Support Equipment	3.74E-03	0.00E+00	1.26E-07
2030	Annual	Lift	120	Airport Ground Support Equipment	3.24E-02	0.00E+00	1.29E-06
2030	Annual	Other GSE	175	Airport Ground Support Equipment	8.24E-02	0.00E+00	3.71E-06
2030	Annual	Passenger Stand	120	Airport Ground Support Equipment	4.54E-04	0.00E+00	8.13E-09
2030	Annual	Sweeper	120	Airport Ground Support Equipment	2.38E-03	0.00E+00	4.90E-08
2030	Annual	Generator	120	Airport Ground Support Equipment	2.19E-02	0.00E+00	1.07E-06
2030	Annual	Generator	175	Airport Ground Support Equipment	2.26E-01	0.00E+00	7.94E-06
2030	Annual	Generator	250	Airport Ground Support Equipment	3.39E-01	0.00E+00	1.13E-05
2030	Annual	Generator	500	Airport Ground Support Equipment	5.69E-02	0.00E+00	1.89E-06
2030	Annual	Generator	750	Airport Ground Support Equipment	1.22E-01	0.00E+00	4.07E-06
2030	Annual	Service Truck	175	Airport Ground Support Equipment	7.92E-03	0.00E+00	1.89E-07
2030	Annual	Catering Truck	250	Airport Ground Support Equipment	5.06E-03	0.00E+00	8.02E-08
2030	Annual	Hydrant Truck	175	Airport Ground Support Equipment	1.67E-02	0.00E+00	4.84E-07
2030	Annual	Compressor (GSE)	120	Airport Ground Support Equipment	2.54E-03	0.00E+00	1.02E-07
2030	Annual	Compressor (GSE)	250	Airport Ground Support Equipment	1.04E-03	0.00E+00	2.84E-08
2030	Annual	Compressor (GSE)	500	Airport Ground Support Equipment	8.55E-03	0.00E+00	2.34E-07
2030	Annual	Compressor (GSE)	750	Airport Ground Support Equipment	4.11E-02	0.00E+00	1.12E-06
2030	Annual	Tampers/Rammers	15	Construction and Mining Equipment	1.32E-02	1.97E-05	9.98E-06
2030	Annual	Plate Compactors	15	Construction and Mining Equipment	1.28E-03	1.91E-06	9.68E-07
2030	Annual	Asphalt Pavers	15	Construction and Mining Equipment	1.69E-03	1.72E-06	1.49E-06
2030	Annual	Asphalt Pavers	25	Construction and Mining Equipment	7.06E-03	4.54E-06	6.56E-06
2030	Annual	Asphalt Pavers	50	Construction and Mining Equipment	8.82E-03	1.54E-06	8.65E-07
2030	Annual	Asphalt Pavers	120	Construction and Mining Equipment	9.13E-03	1.01E-06	3.63E-07
2030	Annual	Tampers/Rammers	15	Construction and Mining Equipment	1.37E-03	1.50E-06	1.19E-06
2030	Annual	Plate Compactors	5	Construction and Mining Equipment	2.21E-02	3.49E-05	3.07E-05
2030	Annual	Plate Compactors	15	Construction and Mining Equipment	5.36E-02	6.23E-05	4.67E-05
2030	Annual	Rollers	5	Construction and Mining Equipment	1.60E-03	2.03E-06	2.00E-06
2030	Annual	Rollers	15	Construction and Mining Equipment	1.74E-02	1.81E-05	1.52E-05
2030	Annual	Rollers	25	Construction and Mining Equipment	2.48E-02	1.75E-05	2.28E-05
2030	Annual	Rollers	50	Construction and Mining Equipment	1.07E-02	2.04E-06	1.51E-06
2030	Annual	Rollers	120	Construction and Mining Equipment	4.03E-02	5.07E-06	2.51E-06
2030	Annual	Paving Equipment	5	Construction and Mining Equipment	3.13E-02	4.77E-05	4.32E-05
2030	Annual	Paving Equipment	15	Construction and Mining Equipment	1.56E-01	1.58E-04	1.35E-04
2030	Annual	Paving Equipment	25	Construction and Mining Equipment	7.61E-03	5.12E-06	6.99E-06
2030	Annual	Paving Equipment	50	Construction and Mining Equipment	1.11E-02	1.75E-06	7.99E-07
2030	Annual	Paving Equipment	120	Construction and Mining Equipment	5.06E-03	4.68E-07	1.40E-07
2030	Annual	Surfacing Equipment	5	Construction and Mining Equipment	7.02E-03	1.06E-05	9.90E-06

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Surfacing Equipment	15	Construction and Mining Equipment	8.39E-02	1.06E-04	7.68E-05
2030	Annual	Surfacing Equipment	25	Construction and Mining Equipment	2.73E-03	2.20E-06	2.64E-06
2030	Annual	Signal Boards	5	Construction and Mining Equipment	8.73E-05	1.03E-07	1.14E-07
2030	Annual	Signal Boards	15	Construction and Mining Equipment	2.17E-03	2.17E-06	1.88E-06
2030	Annual	Trenchers	15	Construction and Mining Equipment	3.33E-02	3.25E-05	2.98E-05
2030	Annual	Trenchers	25	Construction and Mining Equipment	5.42E-02	3.59E-05	5.12E-05
2030	Annual	Trenchers	50	Construction and Mining Equipment	5.44E-02	1.03E-05	6.13E-06
2030	Annual	Trenchers	120	Construction and Mining Equipment	3.92E-02	4.51E-06	1.91E-06
2030	Annual	Bore/Drill Rigs	15	Construction and Mining Equipment	3.26E-04	2.83E-07	2.74E-07
2030	Annual	Bore/Drill Rigs	25	Construction and Mining Equipment	2.92E-03	1.84E-06	2.59E-06
2030	Annual	Bore/Drill Rigs	50	Construction and Mining Equipment	8.93E-04	1.34E-07	6.62E-08
2030	Annual	Bore/Drill Rigs	120	Construction and Mining Equipment	1.11E-02	8.18E-07	3.37E-07
2030	Annual	Bore/Drill Rigs	175	Construction and Mining Equipment	3.84E-03	2.54E-07	8.71E-08
2030	Annual	Concrete/Industrial Saws	5	Construction and Mining Equipment	2.48E-03	3.21E-06	3.23E-06
2030	Annual	Concrete/Industrial Saws	15	Construction and Mining Equipment	5.98E-02	5.59E-05	5.21E-05
2030	Annual	Concrete/Industrial Saws	25	Construction and Mining Equipment	3.53E-02	2.36E-05	3.25E-05
2030	Annual	Concrete/Industrial Saws	50	Construction and Mining Equipment	2.05E-02	2.88E-06	1.42E-06
2030	Annual	Concrete/Industrial Saws	120	Construction and Mining Equipment	2.19E-02	1.75E-06	5.85E-07
2030	Annual	Cement and Mortar Mixers	5	Construction and Mining Equipment	3.01E-02	3.97E-05	3.86E-05
2030	Annual	Cement and Mortar Mixers	15	Construction and Mining Equipment	8.16E-02	9.07E-05	6.96E-05
2030	Annual	Cement and Mortar Mixers	25	Construction and Mining Equipment	1.07E-03	6.72E-07	9.66E-07
2030	Annual	Cranes	50	Construction and Mining Equipment	2.71E-03	5.50E-07	3.10E-07
2030	Annual	Cranes	120	Construction and Mining Equipment	1.07E-02	1.38E-06	5.29E-07
2030	Annual	Cranes	175	Construction and Mining Equipment	7.04E-04	7.41E-08	3.17E-08
2030	Annual	Crushing/Proc. Equipment	15	Construction and Mining Equipment	6.67E-04	5.98E-07	5.79E-07
2030	Annual	Crushing/Proc. Equipment	25	Construction and Mining Equipment	7.77E-04	5.11E-07	7.12E-07
2030	Annual	Rough Terrain Forklifts	120	Construction and Mining Equipment	8.46E-03	6.49E-07	3.26E-07
2030	Annual	Rough Terrain Forklifts	50	Construction and Mining Equipment	1.84E-03	2.90E-07	2.10E-07
2030	Annual	Rough Terrain Forklifts	120	Construction and Mining Equipment	4.66E-02	4.90E-06	2.30E-06
2030	Annual	Rough Terrain Forklifts	175	Construction and Mining Equipment	2.67E-03	2.30E-07	1.20E-07
2030	Annual	Rubber Tired Loaders	50	Construction and Mining Equipment	4.15E-03	7.65E-07	4.89E-07
2030	Annual	Rubber Tired Loaders	120	Construction and Mining Equipment	4.90E-02	6.09E-06	2.43E-06
2030	Annual	Tractors/Loaders/Backhoes	120	Construction and Mining Equipment	3.44E-02	4.93E-06	1.75E-06
2030	Annual	Skid Steer Loaders	15	Construction and Mining Equipment	1.54E-03	1.35E-06	1.36E-06
2030	Annual	Skid Steer Loaders	25	Construction and Mining Equipment	1.39E-01	1.02E-04	1.30E-04
2030	Annual	Skid Steer Loaders	50	Construction and Mining Equipment	5.89E-02	1.01E-05	4.37E-06
2030	Annual	Skid Steer Loaders	120	Construction and Mining Equipment	8.71E-02	7.59E-06	2.51E-06
2030	Annual	Dumpers/Tenders	5	Construction and Mining Equipment	1.38E-03	2.52E-06	1.94E-06
2030	Annual	Dumpers/Tenders	15	Construction and Mining Equipment	6.63E-03	8.42E-06	5.83E-06
2030	Annual	Dumpers/Tenders	25	Construction and Mining Equipment	2.60E-03	2.23E-06	2.41E-06
2030	Annual	Dumpers/Tenders	120	Construction and Mining Equipment	9.18E-04	1.07E-07	2.89E-08
2030	Annual	Other Construction Equipment	175	Construction and Mining Equipment	2.27E-02	1.86E-06	5.47E-07
2030	Annual	Pavers	25	Construction and Mining Equipment	3.16E-03	0.00E+00	3.44E-07
2030	Annual	Pavers	50	Construction and Mining Equipment	2.78E-01	0.00E+00	3.72E-05
2030	Annual	Pavers	120	Construction and Mining Equipment	8.10E-01	0.00E+00	5.24E-05
2030	Annual	Pavers	175	Construction and Mining Equipment	9.33E-01	0.00E+00	4.45E-05
2030	Annual	Pavers	250	Construction and Mining Equipment	1.70E-01	0.00E+00	7.03E-06
2030	Annual	Pavers	500	Construction and Mining Equipment	2.10E-01	0.00E+00	8.45E-06
2030	Annual	Plate Compactors	15	Construction and Mining Equipment	1.15E-02	0.00E+00	1.20E-06
2030	Annual	Rollers	15	Construction and Mining Equipment	3.65E-02	0.00E+00	3.84E-06
2030	Annual	Rollers	25	Construction and Mining Equipment	3.23E-02	0.00E+00	3.51E-06
2030	Annual	Rollers	50	Construction and Mining Equipment	1.96E-01	0.00E+00	1.83E-05
2030	Annual	Rollers	120	Construction and Mining Equipment	2.39E+00	0.00E+00	1.14E-04
2030	Annual	Rollers	175	Construction and Mining Equipment	1.76E+00	0.00E+00	6.26E-05
2030	Annual	Rollers	250	Construction and Mining Equipment	3.54E-01	0.00E+00	1.10E-05
2030	Annual	Rollers	500	Construction and Mining Equipment	3.56E-01	0.00E+00	1.09E-05
2030	Annual	Scrapers	120	Construction and Mining Equipment	5.56E-02	0.00E+00	3.62E-06
2030	Annual	Scrapers	175	Construction and Mining Equipment	8.02E-01	0.00E+00	3.84E-05
2030	Annual	Scrapers	250	Construction and Mining Equipment	1.11E+00	0.00E+00	4.65E-05
2030	Annual	Scrapers	500	Construction and Mining Equipment	4.67E+00	0.00E+00	1.92E-04
2030	Annual	Scrapers	750	Construction and Mining Equipment	4.04E-01	0.00E+00	1.66E-05
2030	Annual	Paving Equipment	25	Construction and Mining Equipment	3.74E-03	0.00E+00	4.07E-07
2030	Annual	Paving Equipment	50	Construction and Mining Equipment	6.03E-03	0.00E+00	7.68E-07
2030	Annual	Paving Equipment	120	Construction and Mining Equipment	1.98E-01	0.00E+00	1.23E-05
2030	Annual	Paving Equipment	175	Construction and Mining Equipment	1.72E-01	0.00E+00	7.95E-06
2030	Annual	Paving Equipment	250	Construction and Mining Equipment	5.88E-02	0.00E+00	2.34E-06
2030	Annual	Surfacing Equipment	50	Construction and Mining Equipment	1.74E-03	0.00E+00	1.43E-07
2030	Annual	Surfacing Equipment	120	Construction and Mining Equipment	1.58E-03	0.00E+00	6.62E-08
2030	Annual	Surfacing Equipment	175	Construction and Mining Equipment	1.59E-03	0.00E+00	4.98E-08
2030	Annual	Surfacing Equipment	250	Construction and Mining Equipment	5.00E-03	0.00E+00	1.37E-07
2030	Annual	Surfacing Equipment	500	Construction and Mining Equipment	6.84E-02	0.00E+00	1.84E-06
2030	Annual	Surfacing Equipment	750	Construction and Mining Equipment	1.96E-02	0.00E+00	5.29E-07
2030	Annual	Signal Boards	15	Construction and Mining Equipment	1.79E-01	0.00E+00	1.88E-05
2030	Annual	Signal Boards	50	Construction and Mining Equipment	3.73E-03	0.00E+00	2.33E-07
2030	Annual	Signal Boards	120	Construction and Mining Equipment	1.35E-01	0.00E+00	4.58E-06
2030	Annual	Signal Boards	175	Construction and Mining Equipment	1.61E-01	0.00E+00	4.03E-06
2030	Annual	Signal Boards	250	Construction and Mining Equipment	5.63E-02	0.00E+00	1.30E-06
2030	Annual	Trenchers	15	Construction and Mining Equipment	5.39E-03	0.00E+00	5.67E-07
2030	Annual	Trenchers	25	Construction and Mining Equipment	2.21E-02	0.00E+00	2.40E-06
2030	Annual	Trenchers	50	Construction and Mining Equipment	8.51E-01	0.00E+00	1.15E-04
2030	Annual	Trenchers	120	Construction and Mining Equipment	2.27E+00	0.00E+00	1.48E-04
2030	Annual	Trenchers	175	Construction and Mining Equipment	5.52E-01	0.00E+00	2.63E-05

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Trenchers	250	Construction and Mining Equipment	7.67E-02	0.00E+00	3.12E-06
2030	Annual	Trenchers	500	Construction and Mining Equipment	1.37E-01	0.00E+00	5.40E-06
2030	Annual	Trenchers	750	Construction and Mining Equipment	9.24E-03	0.00E+00	3.66E-07
2030	Annual	Bore/Drill Rigs	15	Construction and Mining Equipment	1.15E-03	0.00E+00	1.21E-07
2030	Annual	Bore/Drill Rigs	25	Construction and Mining Equipment	5.35E-03	0.00E+00	5.82E-07
2030	Annual	Bore/Drill Rigs	50	Construction and Mining Equipment	4.68E-02	0.00E+00	2.59E-06
2030	Annual	Bore/Drill Rigs	120	Construction and Mining Equipment	3.57E-01	0.00E+00	1.04E-05
2030	Annual	Bore/Drill Rigs	175	Construction and Mining Equipment	1.51E-01	0.00E+00	3.06E-06
2030	Annual	Bore/Drill Rigs	250	Construction and Mining Equipment	1.73E-01	0.00E+00	3.49E-06
2030	Annual	Bore/Drill Rigs	500	Construction and Mining Equipment	6.38E-01	0.00E+00	1.29E-05
2030	Annual	Bore/Drill Rigs	750	Construction and Mining Equipment	2.01E-01	0.00E+00	4.05E-06
2030	Annual	Bore/Drill Rigs	1000	Construction and Mining Equipment	5.08E-01	0.00E+00	1.03E-05
2030	Annual	Excavators	25	Construction and Mining Equipment	1.17E-02	0.00E+00	1.27E-06
2030	Annual	Excavators	50	Construction and Mining Equipment	6.76E-01	0.00E+00	6.46E-05
2030	Annual	Excavators	120	Construction and Mining Equipment	5.40E+00	0.00E+00	2.58E-04
2030	Annual	Excavators	175	Construction and Mining Equipment	1.59E+01	0.00E+00	5.40E-04
2030	Annual	Excavators	250	Construction and Mining Equipment	9.14E+00	0.00E+00	2.95E-04
2030	Annual	Excavators	500	Construction and Mining Equipment	9.71E+00	0.00E+00	3.12E-04
2030	Annual	Excavators	750	Construction and Mining Equipment	1.08E-01	0.00E+00	3.47E-06
2030	Annual	Concrete/Industrial Saws	25	Construction and Mining Equipment	5.36E-04	0.00E+00	5.84E-08
2030	Annual	Concrete/Industrial Saws	50	Construction and Mining Equipment	8.43E-03	0.00E+00	5.48E-07
2030	Annual	Concrete/Industrial Saws	120	Construction and Mining Equipment	3.61E-02	0.00E+00	1.27E-06
2030	Annual	Concrete/Industrial Saws	175	Construction and Mining Equipment	2.55E-03	0.00E+00	6.63E-08
2030	Annual	Cement and Mortar Mixers	15	Construction and Mining Equipment	1.33E-02	0.00E+00	1.40E-06
2030	Annual	Cement and Mortar Mixers	25	Construction and Mining Equipment	3.33E-03	0.00E+00	3.63E-07
2030	Annual	Cranes	50	Construction and Mining Equipment	1.38E-02	0.00E+00	1.50E-06
2030	Annual	Cranes	120	Construction and Mining Equipment	3.29E-01	0.00E+00	1.79E-05
2030	Annual	Cranes	175	Construction and Mining Equipment	5.26E-01	0.00E+00	2.12E-05
2030	Annual	Cranes	250	Construction and Mining Equipment	1.42E+00	0.00E+00	5.07E-05
2030	Annual	Cranes	500	Construction and Mining Equipment	8.38E-01	0.00E+00	2.96E-05
2030	Annual	Cranes	750	Construction and Mining Equipment	3.17E-01	0.00E+00	1.12E-05
2030	Annual	Cranes	9999	Construction and Mining Equipment	1.27E+00	0.00E+00	4.96E-05
2030	Annual	Graders	50	Construction and Mining Equipment	4.99E-03	0.00E+00	5.14E-07
2030	Annual	Graders	120	Construction and Mining Equipment	9.06E-01	0.00E+00	4.65E-05
2030	Annual	Graders	175	Construction and Mining Equipment	5.12E+00	0.00E+00	1.93E-04
2030	Annual	Graders	250	Construction and Mining Equipment	4.41E+00	0.00E+00	1.52E-04
2030	Annual	Graders	500	Construction and Mining Equipment	1.66E-01	0.00E+00	5.66E-06
2030	Annual	Graders	750	Construction and Mining Equipment	5.75E-03	0.00E+00	1.96E-07
2030	Annual	Off-Highway Trucks	175	Construction and Mining Equipment	2.21E-01	0.00E+00	8.06E-06
2030	Annual	Off-Highway Trucks	250	Construction and Mining Equipment	2.17E+00	0.00E+00	7.50E-05
2030	Annual	Off-Highway Trucks	500	Construction and Mining Equipment	5.00E+00	0.00E+00	1.72E-04
2030	Annual	Off-Highway Trucks	750	Construction and Mining Equipment	2.30E+00	0.00E+00	7.93E-05
2030	Annual	Off-Highway Trucks	1000	Construction and Mining Equipment	1.53E+00	0.00E+00	5.35E-05
2030	Annual	Crushing/Proc. Equipment	50	Construction and Mining Equipment	9.25E-02	0.00E+00	7.71E-06
2030	Annual	Crushing/Proc. Equipment	120	Construction and Mining Equipment	4.92E-01	0.00E+00	2.13E-05
2030	Annual	Crushing/Proc. Equipment	175	Construction and Mining Equipment	4.19E-01	0.00E+00	1.32E-05
2030	Annual	Crushing/Proc. Equipment	250	Construction and Mining Equipment	6.10E-02	0.00E+00	1.79E-06
2030	Annual	Crushing/Proc. Equipment	500	Construction and Mining Equipment	5.25E-01	0.00E+00	1.54E-05
2030	Annual	Crushing/Proc. Equipment	750	Construction and Mining Equipment	1.18E-02	0.00E+00	3.45E-07
2030	Annual	Crushing/Proc. Equipment	9999	Construction and Mining Equipment	2.62E-02	0.00E+00	8.17E-07
2030	Annual	Rough Terrain Forklifts	50	Construction and Mining Equipment	5.83E-02	0.00E+00	5.08E-06
2030	Annual	Rough Terrain Forklifts	120	Construction and Mining Equipment	5.15E+00	0.00E+00	2.29E-04
2030	Annual	Rough Terrain Forklifts	175	Construction and Mining Equipment	1.32E+00	0.00E+00	4.21E-05
2030	Annual	Rough Terrain Forklifts	250	Construction and Mining Equipment	1.01E-01	0.00E+00	3.06E-06
2030	Annual	Rough Terrain Forklifts	500	Construction and Mining Equipment	9.96E-02	0.00E+00	3.01E-06
2030	Annual	Rubber Tired Loaders	25	Construction and Mining Equipment	3.12E-03	0.00E+00	3.39E-07
2030	Annual	Rubber Tired Loaders	50	Construction and Mining Equipment	1.13E-01	0.00E+00	1.13E-05
2030	Annual	Rubber Tired Loaders	120	Construction and Mining Equipment	5.79E+00	0.00E+00	2.91E-04
2030	Annual	Rubber Tired Loaders	175	Construction and Mining Equipment	5.89E+00	0.00E+00	2.17E-04
2030	Annual	Rubber Tired Loaders	250	Construction and Mining Equipment	8.20E+00	0.00E+00	2.74E-04
2030	Annual	Rubber Tired Loaders	500	Construction and Mining Equipment	5.43E+00	0.00E+00	1.80E-04
2030	Annual	Rubber Tired Loaders	750	Construction and Mining Equipment	2.38E-01	0.00E+00	7.89E-06
2030	Annual	Rubber Tired Loaders	1000	Construction and Mining Equipment	3.13E-02	0.00E+00	1.07E-06
2030	Annual	Rubber Tired Dozers	175	Construction and Mining Equipment	2.87E-02	0.00E+00	1.81E-06
2030	Annual	Rubber Tired Dozers	250	Construction and Mining Equipment	9.96E-01	0.00E+00	5.30E-05
2030	Annual	Rubber Tired Dozers	500	Construction and Mining Equipment	2.21E+00	0.00E+00	1.13E-04
2030	Annual	Rubber Tired Dozers	750	Construction and Mining Equipment	3.59E-01	0.00E+00	1.84E-05
2030	Annual	Rubber Tired Dozers	1000	Construction and Mining Equipment	3.60E-02	0.00E+00	1.93E-06
2030	Annual	Tractors/Loaders/Backhoes	25	Construction and Mining Equipment	5.79E-02	0.00E+00	6.31E-06
2030	Annual	Tractors/Loaders/Backhoes	50	Construction and Mining Equipment	6.72E-01	0.00E+00	5.75E-05
2030	Annual	Tractors/Loaders/Backhoes	120	Construction and Mining Equipment	1.53E+01	0.00E+00	6.61E-04
2030	Annual	Tractors/Loaders/Backhoes	175	Construction and Mining Equipment	2.24E+00	0.00E+00	6.87E-05
2030	Annual	Tractors/Loaders/Backhoes	250	Construction and Mining Equipment	1.23E+00	0.00E+00	3.57E-05
2030	Annual	Tractors/Loaders/Backhoes	500	Construction and Mining Equipment	3.98E+00	0.00E+00	1.15E-04
2030	Annual	Tractors/Loaders/Backhoes	750	Construction and Mining Equipment	1.25E+00	0.00E+00	3.64E-05
2030	Annual	Crawler Tractors	50	Construction and Mining Equipment	4.94E-03	0.00E+00	6.53E-07
2030	Annual	Crawler Tractors	120	Construction and Mining Equipment	7.42E+00	0.00E+00	4.77E-04
2030	Annual	Crawler Tractors	175	Construction and Mining Equipment	4.62E+00	0.00E+00	2.18E-04
2030	Annual	Crawler Tractors	250	Construction and Mining Equipment	5.45E+00	0.00E+00	2.27E-04
2030	Annual	Crawler Tractors	500	Construction and Mining Equipment	5.83E+00	0.00E+00	2.38E-04
2030	Annual	Crawler Tractors	750	Construction and Mining Equipment	1.61E-01	0.00E+00	6.58E-06
2030	Annual	Crawler Tractors	1000	Construction and Mining Equipment	2.28E-01	0.00E+00	9.62E-06

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Skid Steer Loaders	25	Construction and Mining Equipment	3.04E-01	0.00E+00	3.31E-05
2030	Annual	Skid Steer Loaders	50	Construction and Mining Equipment	5.17E+00	0.00E+00	3.38E-04
2030	Annual	Skid Steer Loaders	120	Construction and Mining Equipment	4.54E+00	0.00E+00	1.54E-04
2030	Annual	Off-Highway Tractors	120	Construction and Mining Equipment	1.43E-03	0.00E+00	1.17E-07
2030	Annual	Off-Highway Tractors	175	Construction and Mining Equipment	2.42E+00	0.00E+00	1.44E-04
2030	Annual	Off-Highway Tractors	250	Construction and Mining Equipment	2.29E+00	0.00E+00	1.15E-04
2030	Annual	Off-Highway Tractors	750	Construction and Mining Equipment	1.32E+00	0.00E+00	6.39E-05
2030	Annual	Off-Highway Tractors	1000	Construction and Mining Equipment	2.00E-01	0.00E+00	1.01E-05
2030	Annual	Dumpers/Tenders	25	Construction and Mining Equipment	1.67E-03	0.00E+00	1.81E-07
2030	Annual	Other Construction Equipment	15	Construction and Mining Equipment	3.17E-02	0.00E+00	3.33E-06
2030	Annual	Other Construction Equipment	25	Construction and Mining Equipment	7.02E-03	0.00E+00	7.64E-07
2030	Annual	Other Construction Equipment	50	Construction and Mining Equipment	2.31E-02	0.00E+00	1.57E-06
2030	Annual	Other Construction Equipment	120	Construction and Mining Equipment	1.10E-01	0.00E+00	3.94E-06
2030	Annual	Other Construction Equipment	175	Construction and Mining Equipment	2.00E-01	0.00E+00	5.15E-06
2030	Annual	Other Construction Equipment	500	Construction and Mining Equipment	1.11E+00	0.00E+00	2.72E-05
2030	Annual	Compressor (Dredging)	50	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressor (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressor (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressor (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressor (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressor (Dredging)	1000	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Crane (Dredging)	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Deck/door engine	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Dredger	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Dredger	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Dredger	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Dredger	9999	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Hoist/swing/winch	50	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Hoist/swing/winch	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Hoist/swing/winch	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Hoist/swing/winch	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Hoist/swing/winch	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Hoist/swing/winch	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Hoist/swing/winch	9999	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Dredging)	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Dredging)	9999	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Dredging)	50	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Dredging)	750	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Dredging)	9999	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other (Dredging)	120	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other (Dredging)	175	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other (Dredging)	250	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other (Dredging)	500	Dredging	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Entertainment)	50	Entertainment Equipment	9.98E-04	0.00E+00	5.07E-08
2030	Annual	Generator (Entertainment)	120	Entertainment Equipment	4.99E-02	0.00E+00	1.44E-06
2030	Annual	Generator (Entertainment)	175	Entertainment Equipment	6.92E-02	0.00E+00	1.47E-06
2030	Annual	Generator (Entertainment)	250	Entertainment Equipment	1.41E-01	0.00E+00	2.75E-06
2030	Annual	Generator (Entertainment)	500	Entertainment Equipment	3.07E-01	0.00E+00	5.93E-06
2030	Annual	Generator (Entertainment)	750	Entertainment Equipment	1.06E-01	0.00E+00	2.04E-06
2030	Annual	Generator (Entertainment)	9999	Entertainment Equipment	2.76E-02	0.00E+00	5.77E-07
2030	Annual	Compressor (Entertainment)	120	Entertainment Equipment	4.82E-04	0.00E+00	2.05E-08
2030	Annual	Other General Industrial Equipment	15	Industrial Equipment	1.04E-03	9.30E-07	5.59E-07
2030	Annual	Aerial Lifts	15	Industrial Equipment	2.78E-04	2.81E-07	2.43E-07
2030	Annual	Aerial Lifts	25	Industrial Equipment	1.73E-02	1.42E-05	1.63E-05
2030	Annual	Aerial Lifts	50	Industrial Equipment	6.46E-02	1.23E-05	5.13E-06
2030	Annual	Aerial Lifts	120	Industrial Equipment	1.30E-01	1.42E-05	4.04E-06
2030	Annual	Forklifts	25	Industrial Equipment	7.70E-04	6.25E-07	4.87E-07
2030	Annual	Forklifts	50	Industrial Equipment	8.70E-01	3.16E-04	1.27E-04
2030	Annual	Forklifts	120	Industrial Equipment	5.15E+00	1.28E-03	2.68E-04
2030	Annual	Forklifts	175	Industrial Equipment	3.82E-01	6.25E-05	1.40E-05
2030	Annual	Sweepers/Scrubbers	15	Industrial Equipment	5.51E-03	4.54E-06	3.25E-06
2030	Annual	Sweepers/Scrubbers	25	Industrial Equipment	1.21E-02	7.07E-06	7.21E-06
2030	Annual	Sweepers/Scrubbers	50	Industrial Equipment	1.41E-01	2.59E-05	1.12E-05
2030	Annual	Sweepers/Scrubbers	120	Industrial Equipment	2.25E-01	3.18E-05	6.51E-06
2030	Annual	Sweepers/Scrubbers	175	Industrial Equipment	2.62E-03	2.70E-07	5.04E-08
2030	Annual	Other General Industrial Equipment	15	Industrial Equipment	1.15E-02	1.11E-05	7.13E-06
2030	Annual	Other General Industrial Equipment	25	Industrial Equipment	9.75E-03	6.67E-06	6.06E-06
2030	Annual	Other General Industrial Equipment	50	Industrial Equipment	4.35E-02	1.07E-05	4.01E-06
2030	Annual	Other General Industrial Equipment	120	Industrial Equipment	3.72E-02	5.78E-06	1.24E-06
2030	Annual	Other General Industrial Equipment	175	Industrial Equipment	7.71E-03	8.29E-07	1.74E-07
2030	Annual	Other Material Handling Equipment	50	Industrial Equipment	4.46E-04	9.95E-08	4.49E-08
2030	Annual	Other Material Handling Equipment	120	Industrial Equipment	2.57E-02	4.94E-06	9.73E-07
2030	Annual	Aerial Lifts	15	Industrial Equipment	4.88E-04	0.00E+00	1.71E-06
2030	Annual	Aerial Lifts	25	Industrial Equipment	3.06E-02	0.00E+00	1.65E-04

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Forklifts	25	Industrial Equipment	7.90E-04	0.00E+00	8.03E-06
2030	Annual	Forklifts	50	Industrial Equipment	1.37E+00	0.00E+00	1.12E-03
2030	Annual	Forklifts	120	Industrial Equipment	8.24E+00	0.00E+00	6.62E-03
2030	Annual	Forklifts	175	Industrial Equipment	6.29E-01	0.00E+00	3.04E-04
2030	Annual	Aerial Lifts	15	Industrial Equipment	1.10E-02	0.00E+00	1.15E-06
2030	Annual	Aerial Lifts	25	Industrial Equipment	2.27E-02	0.00E+00	2.47E-06
2030	Annual	Aerial Lifts	50	Industrial Equipment	1.43E-01	0.00E+00	7.65E-06
2030	Annual	Aerial Lifts	120	Industrial Equipment	2.46E-01	0.00E+00	7.32E-06
2030	Annual	Aerial Lifts	500	Industrial Equipment	1.76E-01	0.00E+00	3.52E-06
2030	Annual	Aerial Lifts	750	Industrial Equipment	2.56E-02	0.00E+00	5.13E-07
2030	Annual	Forklifts	50	Industrial Equipment	1.52E-01	0.00E+00	1.35E-05
2030	Annual	Forklifts	120	Industrial Equipment	5.07E-01	0.00E+00	2.26E-05
2030	Annual	Forklifts	175	Industrial Equipment	9.15E-01	0.00E+00	2.88E-05
2030	Annual	Forklifts	250	Industrial Equipment	1.25E+00	0.00E+00	3.85E-05
2030	Annual	Forklifts	500	Industrial Equipment	7.69E-01	0.00E+00	2.37E-05
2030	Annual	Sweepers/Scrubbers	15	Industrial Equipment	3.28E-03	0.00E+00	3.07E-07
2030	Annual	Sweepers/Scrubbers	25	Industrial Equipment	5.38E-03	0.00E+00	5.86E-07
2030	Annual	Sweepers/Scrubbers	50	Industrial Equipment	3.17E-01	0.00E+00	2.55E-05
2030	Annual	Sweepers/Scrubbers	120	Industrial Equipment	1.25E+00	0.00E+00	5.14E-05
2030	Annual	Sweepers/Scrubbers	175	Industrial Equipment	1.06E+00	0.00E+00	3.14E-05
2030	Annual	Sweepers/Scrubbers	250	Industrial Equipment	1.98E-01	0.00E+00	5.70E-06
2030	Annual	Sweepers/Scrubbers	15	Industrial Equipment	1.01E-02	0.00E+00	9.45E-07
2030	Annual	Other General Industrial Equipment	25	Industrial Equipment	3.25E-02	0.00E+00	3.54E-06
2030	Annual	Other General Industrial Equipment	50	Industrial Equipment	5.70E-02	0.00E+00	5.49E-06
2030	Annual	Other General Industrial Equipment	120	Industrial Equipment	6.50E-01	0.00E+00	3.18E-05
2030	Annual	Other General Industrial Equipment	175	Industrial Equipment	1.01E+00	0.00E+00	3.56E-05
2030	Annual	Other General Industrial Equipment	250	Industrial Equipment	1.42E+00	0.00E+00	4.70E-05
2030	Annual	Other General Industrial Equipment	500	Industrial Equipment	2.77E+00	0.00E+00	9.15E-05
2030	Annual	Other General Industrial Equipment	750	Industrial Equipment	1.14E+00	0.00E+00	3.77E-05
2030	Annual	Other General Industrial Equipment	1000	Industrial Equipment	8.89E-01	0.00E+00	2.99E-05
2030	Annual	Other Material Handling Equipment	50	Industrial Equipment	2.11E-03	0.00E+00	2.00E-07
2030	Annual	Other Material Handling Equipment	120	Industrial Equipment	2.53E-02	0.00E+00	1.22E-06
2030	Annual	Other Material Handling Equipment	175	Industrial Equipment	5.46E-02	0.00E+00	1.90E-06
2030	Annual	Other Material Handling Equipment	250	Industrial Equipment	1.54E-01	0.00E+00	5.03E-06
2030	Annual	Other Material Handling Equipment	500	Industrial Equipment	3.81E-02	0.00E+00	1.24E-06
2030	Annual	Other Material Handling Equipment	9999	Industrial Equipment	4.42E-02	0.00E+00	1.52E-06
2030	Annual	Lawn Mowers	15	Lawn and Garden Equipment	1.87E-01	2.42E-04	2.18E-04
2030	Annual	Lawn Mowers	15	Lawn and Garden Equipment	9.51E-02	1.08E-04	8.76E-05
2030	Annual	Chainsaws	2	Lawn and Garden Equipment	1.51E-01	2.51E-04	1.93E-03
2030	Annual	Chainsaws	2	Lawn and Garden Equipment	2.89E-02	4.80E-05	1.08E-04
2030	Annual	Chainsaws	15	Lawn and Garden Equipment	2.58E-01	2.83E-04	3.28E-03
2030	Annual	Chainsaws	15	Lawn and Garden Equipment	4.91E-02	5.41E-05	1.84E-04
2030	Annual	Chainsaws Preempt	15	Lawn and Garden Equipment	3.21E-01	3.52E-04	4.08E-03
2030	Annual	Chainsaws Preempt	15	Lawn and Garden Equipment	6.12E-02	6.71E-05	2.33E-04
2030	Annual	Trimmers/Edgers/Brush Cutters	2	Lawn and Garden Equipment	1.81E-01	3.20E-04	1.26E-03
2030	Annual	Trimmers/Edgers/Brush Cutters	2	Lawn and Garden Equipment	3.57E-01	6.31E-04	1.99E-03
2030	Annual	Leaf Blowers/Vacuums	2	Lawn and Garden Equipment	4.86E-01	8.17E-04	4.70E-03
2030	Annual	Leaf Blowers/Vacuums	2	Lawn and Garden Equipment	3.06E-02	5.16E-05	1.14E-04
2030	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Shredders	15	Lawn and Garden Equipment	1.63E-02	1.59E-05	1.10E-05
2030	Annual	Shredders	15	Lawn and Garden Equipment	3.85E-03	3.46E-06	2.22E-06
2030	Annual	Commercial Turf Equipment	15	Lawn and Garden Equipment	4.77E-02	4.19E-05	2.57E-05
2030	Annual	Commercial Turf Equipment	25	Lawn and Garden Equipment	4.97E-02	3.10E-05	2.66E-05
2030	Annual	Other Lawn & Garden Equipment	2	Lawn and Garden Equipment	2.23E-04	3.50E-07	1.39E-06
2030	Annual	Other Lawn & Garden Equipment	2	Lawn and Garden Equipment	4.28E-04	6.74E-07	1.52E-06
2030	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	4.85E-04	3.59E-07	3.02E-06
2030	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	9.33E-04	6.92E-07	3.30E-06
2030	Annual	Lawn Mowers	5	Lawn and Garden Equipment	1.11E+00	1.43E-03	1.29E-03
2030	Annual	Lawn Mowers	5	Lawn and Garden Equipment	1.19E+00	1.26E-03	9.95E-04
2030	Annual	Tillers	5	Lawn and Garden Equipment	3.12E-02	3.38E-05	2.93E-05
2030	Annual	Tillers	5	Lawn and Garden Equipment	3.90E-02	4.07E-05	3.44E-05
2030	Annual	Trimmers/Edgers/Brush Cutters	5	Lawn and Garden Equipment	3.00E-02	1.07E-04	3.96E-05
2030	Annual	Trimmers/Edgers/Brush Cutters	5	Lawn and Garden Equipment	2.21E-02	7.56E-05	2.69E-05
2030	Annual	Leaf Blowers/Vacuums	5	Lawn and Garden Equipment	6.99E-03	1.01E-05	5.67E-06
2030	Annual	Leaf Blowers/Vacuums	5	Lawn and Garden Equipment	4.64E-04	6.03E-07	3.09E-07
2030	Annual	Snowblowers	5	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	5	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	15	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	25	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Rear Engine Riding Mowers	15	Lawn and Garden Equipment	1.71E+00	1.70E-03	9.16E-04
2030	Annual	Rear Engine Riding Mowers	15	Lawn and Garden Equipment	1.56E-01	1.43E-04	7.11E-05
2030	Annual	Rear Engine Riding Mowers	25	Lawn and Garden Equipment	1.48E-02	1.10E-05	7.86E-06
2030	Annual	Rear Engine Riding Mowers	25	Lawn and Garden Equipment	1.32E-03	8.89E-07	6.14E-07
2030	Annual	Front Mowers	15	Lawn and Garden Equipment	1.25E-01	1.00E-04	6.70E-05
2030	Annual	Front Mowers	15	Lawn and Garden Equipment	4.20E-01	3.10E-04	1.92E-04
2030	Annual	Front Mowers	25	Lawn and Garden Equipment	1.28E-01	9.09E-05	6.82E-05
2030	Annual	Front Mowers	25	Lawn and Garden Equipment	4.30E-01	2.76E-04	2.00E-04

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Shredders	5	Lawn and Garden Equipment	2.88E-02	3.71E-05	3.80E-05
2030	Annual	Shredders	5	Lawn and Garden Equipment	7.09E-03	7.45E-06	6.37E-06
2030	Annual	Lawn & Garden Tractors	15	Lawn and Garden Equipment	2.86E-01	1.92E-04	1.29E-04
2030	Annual	Lawn & Garden Tractors	15	Lawn and Garden Equipment	2.11E-01	1.36E-04	8.74E-05
2030	Annual	Lawn & Garden Tractors	25	Lawn and Garden Equipment	1.74E-01	9.40E-05	7.97E-05
2030	Annual	Lawn & Garden Tractors	25	Lawn and Garden Equipment	1.29E-01	6.58E-05	5.49E-05
2030	Annual	Lawn & Garden Tractors	50	Lawn and Garden Equipment	5.48E-03	1.15E-06	3.66E-07
2030	Annual	Wood Splitters	5	Lawn and Garden Equipment	5.03E-02	4.11E-05	5.38E-05
2030	Annual	Wood Splitters	5	Lawn and Garden Equipment	1.07E-02	6.15E-06	6.15E-06
2030	Annual	Chippers/Stump Grinders	15	Lawn and Garden Equipment	1.73E-02	1.51E-05	1.58E-05
2030	Annual	Chippers/Stump Grinders	15	Lawn and Garden Equipment	4.04E-04	3.01E-07	2.76E-07
2030	Annual	Chippers/Stump Grinders	25	Lawn and Garden Equipment	1.61E-01	1.07E-04	1.55E-04
2030	Annual	Chippers/Stump Grinders	25	Lawn and Garden Equipment	3.74E-03	2.12E-06	2.70E-06
2030	Annual	Commercial Turf Equipment	15	Lawn and Garden Equipment	5.25E-01	4.63E-04	3.43E-04
2030	Annual	Commercial Turf Equipment	25	Lawn and Garden Equipment	4.47E-01	3.13E-04	2.83E-04
2030	Annual	Commercial Turf Equipment	50	Lawn and Garden Equipment	4.44E-01	1.36E-04	5.37E-05
2030	Annual	Commercial Turf Equipment	120	Lawn and Garden Equipment	5.50E-03	1.01E-06	1.51E-07
2030	Annual	Other Lawn & Garden Equipment	5	Lawn and Garden Equipment	1.67E-02	1.52E-05	1.56E-05
2030	Annual	Other Lawn & Garden Equipment	5	Lawn and Garden Equipment	3.21E-02	2.39E-05	2.10E-05
2030	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	1.48E-02	1.18E-05	6.74E-06
2030	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	2.85E-02	2.12E-05	1.13E-05
2030	Annual	Other Lawn & Garden Equipment	25	Lawn and Garden Equipment	6.66E-04	3.67E-07	3.07E-07
2030	Annual	Other Lawn & Garden Equipment	25	Lawn and Garden Equipment	1.29E-03	6.49E-07	5.33E-07
2030	Annual	Other Lawn & Garden Equipment	50	Lawn and Garden Equipment	1.66E-04	2.91E-08	1.07E-08
2030	Annual	Other Lawn & Garden Equipment	120	Lawn and Garden Equipment	1.11E-03	1.36E-07	2.72E-08
2030	Annual	Leaf Blowers/Vacuums	15	Lawn and Garden Equipment	4.35E-05	0.00E+00	4.07E-09
2030	Annual	Leaf Blowers/Vacuums	120	Lawn and Garden Equipment	6.15E-04	0.00E+00	1.25E-08
2030	Annual	Leaf Blowers/Vacuums	250	Lawn and Garden Equipment	3.62E-04	0.00E+00	4.92E-09
2030	Annual	Snowblowers	175	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	250	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowblowers	500	Lawn and Garden Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Lawn & Garden Tractors	15	Lawn and Garden Equipment	1.47E+00	0.00E+00	1.37E-04
2030	Annual	Lawn & Garden Tractors	25	Lawn and Garden Equipment	1.77E+00	0.00E+00	1.92E-04
2030	Annual	Chippers/Stump Grinders	25	Lawn and Garden Equipment	1.27E-03	0.00E+00	1.38E-07
2030	Annual	Chippers/Stump Grinders	120	Lawn and Garden Equipment	1.32E-01	0.00E+00	4.30E-06
2030	Annual	Chippers/Stump Grinders	175	Lawn and Garden Equipment	1.57E-02	0.00E+00	3.77E-07
2030	Annual	Chippers/Stump Grinders	250	Lawn and Garden Equipment	6.23E-03	0.00E+00	1.38E-07
2030	Annual	Chippers/Stump Grinders	500	Lawn and Garden Equipment	6.40E-02	0.00E+00	1.41E-06
2030	Annual	Chippers/Stump Grinders	750	Lawn and Garden Equipment	1.75E-01	0.00E+00	3.87E-06
2030	Annual	Chippers/Stump Grinders	1000	Lawn and Garden Equipment	4.74E-01	0.00E+00	1.07E-05
2030	Annual	Commercial Turf Equipment	15	Lawn and Garden Equipment	7.54E-02	0.00E+00	7.06E-06
2030	Annual	Commercial Turf Equipment	25	Lawn and Garden Equipment	2.13E+00	0.00E+00	2.31E-04
2030	Annual	Other Lawn & Garden Equipment	15	Lawn and Garden Equipment	5.58E-04	0.00E+00	5.22E-08
2030	Annual	Other Lawn & Garden Equipment	25	Lawn and Garden Equipment	1.06E-04	0.00E+00	1.16E-08
2030	Annual	Generator Sets	2	Light Commercial Equipment	3.86E-03	7.55E-06	5.00E-06
2030	Annual	Generator Sets	2	Light Commercial Equipment	2.04E-03	3.97E-06	2.61E-06
2030	Annual	Generator Sets	15	Light Commercial Equipment	3.50E-04	2.63E-07	1.84E-07
2030	Annual	Generator Sets	15	Light Commercial Equipment	1.79E-04	1.35E-07	9.48E-08
2030	Annual	Pumps	2	Light Commercial Equipment	2.99E-02	5.87E-05	3.95E-05
2030	Annual	Pumps	2	Light Commercial Equipment	1.58E-02	3.08E-05	2.07E-05
2030	Annual	Pumps	15	Light Commercial Equipment	6.44E-02	6.33E-05	4.98E-05
2030	Annual	Pumps	15	Light Commercial Equipment	3.40E-02	3.33E-05	2.62E-05
2030	Annual	Pumps	25	Light Commercial Equipment	1.66E-03	1.10E-06	1.35E-06
2030	Annual	Pumps	25	Light Commercial Equipment	8.67E-04	5.72E-07	7.02E-07
2030	Annual	Generator Sets	5	Light Commercial Equipment	2.02E-01	2.07E-04	2.63E-04
2030	Annual	Generator Sets	5	Light Commercial Equipment	1.07E-01	1.09E-04	1.37E-04
2030	Annual	Generator Sets	15	Light Commercial Equipment	1.25E+00	1.01E-03	7.65E-04
2030	Annual	Generator Sets	15	Light Commercial Equipment	6.61E-01	5.36E-04	4.05E-04
2030	Annual	Generator Sets	25	Light Commercial Equipment	1.42E+00	8.25E-04	8.48E-04
2030	Annual	Generator Sets	25	Light Commercial Equipment	7.50E-01	4.35E-04	4.50E-04
2030	Annual	Generator Sets	50	Light Commercial Equipment	1.24E+00	2.26E-04	8.79E-05
2030	Annual	Generator Sets	120	Light Commercial Equipment	6.15E-01	7.85E-05	1.64E-05
2030	Annual	Generator Sets	175	Light Commercial Equipment	9.94E-02	1.02E-05	1.73E-06
2030	Annual	Pumps	5	Light Commercial Equipment	1.05E-01	1.78E-04	1.58E-04
2030	Annual	Pumps	5	Light Commercial Equipment	5.55E-02	9.36E-05	8.27E-05
2030	Annual	Pumps	15	Light Commercial Equipment	3.03E-01	3.21E-04	2.70E-04
2030	Annual	Pumps	15	Light Commercial Equipment	1.60E-01	1.69E-04	1.41E-04
2030	Annual	Pumps	25	Light Commercial Equipment	1.65E-01	1.17E-04	1.54E-04
2030	Annual	Pumps	25	Light Commercial Equipment	8.72E-02	6.17E-05	8.05E-05
2030	Annual	Pumps	50	Light Commercial Equipment	1.87E-01	3.05E-05	1.47E-05
2030	Annual	Pumps	120	Light Commercial Equipment	7.05E-01	5.45E-05	2.16E-05
2030	Annual	Pumps	175	Light Commercial Equipment	3.20E-02	2.13E-06	8.34E-07
2030	Annual	Air Compressors	5	Light Commercial Equipment	1.12E-01	1.66E-04	1.70E-04
2030	Annual	Air Compressors	5	Light Commercial Equipment	5.94E-02	8.78E-05	8.98E-05
2030	Annual	Air Compressors	15	Light Commercial Equipment	7.96E-02	1.00E-04	7.29E-05
2030	Annual	Air Compressors	15	Light Commercial Equipment	4.21E-02	5.24E-05	3.76E-05
2030	Annual	Air Compressors	25	Light Commercial Equipment	2.61E-02	2.08E-05	2.52E-05
2030	Annual	Air Compressors	25	Light Commercial Equipment	1.38E-02	1.09E-05	1.31E-05
2030	Annual	Air Compressors	50	Light Commercial Equipment	1.43E-01	2.76E-05	1.69E-05
2030	Annual	Air Compressors	120	Light Commercial Equipment	9.17E-01	1.13E-04	4.60E-05
2030	Annual	Air Compressors	175	Light Commercial Equipment	1.15E-01	1.09E-05	5.49E-06
2030	Annual	Air Compressors	15	Light Commercial Equipment	1.62E-01	1.70E-04	1.44E-04

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Welders	25	Light Commercial Equipment	9.05E-01	7.42E-04	8.47E-04
2030	Annual	Welders	50	Light Commercial Equipment	3.76E-01	6.09E-05	3.17E-05
2030	Annual	Welders	120	Light Commercial Equipment	5.91E-01	6.32E-05	2.03E-05
2030	Annual	Welders	175	Light Commercial Equipment	7.35E-02	6.22E-06	2.11E-06
2030	Annual	Pressure Washers	5	Light Commercial Equipment	8.50E-02	7.00E-05	1.09E-04
2030	Annual	Pressure Washers	5	Light Commercial Equipment	4.49E-02	3.70E-05	5.71E-05
2030	Annual	Pressure Washers	15	Light Commercial Equipment	1.06E-01	8.71E-05	6.48E-05
2030	Annual	Pressure Washers	15	Light Commercial Equipment	5.61E-02	4.60E-05	3.43E-05
2030	Annual	Pressure Washers	25	Light Commercial Equipment	5.13E-02	2.75E-05	3.05E-05
2030	Annual	Pressure Washers	25	Light Commercial Equipment	2.71E-02	1.45E-05	1.61E-05
2030	Annual	Pressure Washers	50	Light Commercial Equipment	1.26E-02	1.84E-06	8.56E-07
2030	Annual	Generator Sets	120	Light Commercial Equipment	3.99E-02	0.00E+00	1.11E-05
2030	Annual	Generator Sets	175	Light Commercial Equipment	5.82E-02	0.00E+00	1.23E-05
2030	Annual	Gas Compressors	50	Light Commercial Equipment	2.57E-01	0.00E+00	1.78E-04
2030	Annual	Gas Compressors	120	Light Commercial Equipment	1.44E+00	0.00E+00	9.72E-04
2030	Annual	Gas Compressors	175	Light Commercial Equipment	3.75E-01	0.00E+00	2.71E-04
2030	Annual	Gas Compressors	250	Light Commercial Equipment	3.87E-01	0.00E+00	2.09E-04
2030	Annual	Gas Compressors	500	Light Commercial Equipment	5.45E-01	0.00E+00	2.94E-04
2030	Annual	Generator Sets	15	Light Commercial Equipment	3.68E-01	0.00E+00	3.46E-05
2030	Annual	Generator Sets	25	Light Commercial Equipment	4.64E-01	0.00E+00	5.06E-05
2030	Annual	Generator Sets	50	Light Commercial Equipment	9.85E-01	0.00E+00	4.90E-05
2030	Annual	Generator Sets	120	Light Commercial Equipment	3.81E+00	0.00E+00	1.07E-04
2030	Annual	Generator Sets	175	Light Commercial Equipment	4.10E-01	0.00E+00	8.46E-06
2030	Annual	Generator Sets	250	Light Commercial Equipment	3.43E-01	0.00E+00	6.51E-06
2030	Annual	Generator Sets	500	Light Commercial Equipment	1.21E+00	0.00E+00	2.28E-05
2030	Annual	Generator Sets	750	Light Commercial Equipment	1.21E+00	0.00E+00	2.29E-05
2030	Annual	Generator Sets	9999	Light Commercial Equipment	6.09E-01	0.00E+00	1.24E-05
2030	Annual	Pumps	15	Light Commercial Equipment	2.39E-01	0.00E+00	2.52E-05
2030	Annual	Pumps	25	Light Commercial Equipment	1.88E-01	0.00E+00	2.05E-05
2030	Annual	Pumps	50	Light Commercial Equipment	5.77E-01	0.00E+00	3.17E-05
2030	Annual	Pumps	120	Light Commercial Equipment	2.57E+00	0.00E+00	7.81E-05
2030	Annual	Pumps	175	Light Commercial Equipment	4.99E-01	0.00E+00	1.12E-05
2030	Annual	Pumps	250	Light Commercial Equipment	5.17E-01	0.00E+00	1.06E-05
2030	Annual	Pumps	500	Light Commercial Equipment	1.75E-02	0.00E+00	3.58E-07
2030	Annual	Pumps	750	Light Commercial Equipment	4.82E-03	0.00E+00	9.88E-08
2030	Annual	Pumps	9999	Light Commercial Equipment	2.52E-01	0.00E+00	5.53E-06
2030	Annual	Air Compressors	15	Light Commercial Equipment	6.41E-03	0.00E+00	6.76E-07
2030	Annual	Air Compressors	25	Light Commercial Equipment	2.54E-02	0.00E+00	2.77E-06
2030	Annual	Air Compressors	50	Light Commercial Equipment	3.56E-01	0.00E+00	2.86E-05
2030	Annual	Air Compressors	120	Light Commercial Equipment	5.00E+00	0.00E+00	2.09E-04
2030	Annual	Air Compressors	175	Light Commercial Equipment	3.57E-01	0.00E+00	1.09E-05
2030	Annual	Air Compressors	250	Light Commercial Equipment	7.44E-01	0.00E+00	2.11E-05
2030	Annual	Air Compressors	500	Light Commercial Equipment	1.71E+00	0.00E+00	4.85E-05
2030	Annual	Air Compressors	750	Light Commercial Equipment	9.91E-01	0.00E+00	2.81E-05
2030	Annual	Air Compressors	1000	Light Commercial Equipment	3.32E-02	0.00E+00	9.62E-07
2030	Annual	Welders	15	Light Commercial Equipment	1.44E-01	0.00E+00	1.52E-05
2030	Annual	Welders	25	Light Commercial Equipment	2.31E-01	0.00E+00	2.52E-05
2030	Annual	Welders	50	Light Commercial Equipment	1.64E+00	0.00E+00	1.16E-04
2030	Annual	Welders	120	Light Commercial Equipment	1.93E+00	0.00E+00	7.32E-05
2030	Annual	Welders	175	Light Commercial Equipment	2.38E-02	0.00E+00	6.63E-07
2030	Annual	Welders	250	Light Commercial Equipment	6.42E-03	0.00E+00	1.65E-07
2030	Annual	Welders	500	Light Commercial Equipment	2.26E-02	0.00E+00	5.79E-07
2030	Annual	Pressure Washers	15	Light Commercial Equipment	3.51E-03	0.00E+00	3.30E-07
2030	Annual	Pressure Washers	25	Light Commercial Equipment	1.19E-03	0.00E+00	1.30E-07
2030	Annual	Pressure Washers	50	Light Commercial Equipment	4.73E-03	0.00E+00	1.61E-07
2030	Annual	Pressure Washers	120	Light Commercial Equipment	3.29E-03	0.00E+00	6.96E-08
2030	Annual	Chainsaws	15	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Shredders	15	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Shredders	175	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Skidders	120	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Skidders	175	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Skidders	250	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Skidders	500	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Fellers/Bunchers	120	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Fellers/Bunchers	175	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Fellers/Bunchers	250	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Fellers/Bunchers	500	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Fellers/Bunchers	750	Logging Equipment	0.00E+00	0.00E+00	0.00E+00
2030	Annual	A/C unit	120	Military Tactical Support Equip	9.02E-03	0.00E+00	2.47E-07
2030	Annual	A/C unit	250	Military Tactical Support Equip	7.75E-03	0.00E+00	1.43E-07
2030	Annual	A/C unit	500	Military Tactical Support Equip	4.64E-03	0.00E+00	8.50E-08
2030	Annual	Aircraft Support	120	Military Tactical Support Equip	1.65E-03	0.00E+00	4.51E-08
2030	Annual	Aircraft Support	175	Military Tactical Support Equip	4.85E-03	0.00E+00	9.78E-08
2030	Annual	Cart	120	Military Tactical Support Equip	8.42E-04	0.00E+00	2.30E-08
2030	Annual	Cart	175	Military Tactical Support Equip	3.98E-04	0.00E+00	8.01E-09
2030	Annual	Cart	250	Military Tactical Support Equip	1.71E-03	0.00E+00	3.15E-08
2030	Annual	Communications	50	Military Tactical Support Equip	1.39E-04	0.00E+00	6.60E-09
2030	Annual	Communications	120	Military Tactical Support Equip	4.16E-04	0.00E+00	1.14E-08
2030	Annual	Compressor (Military)	50	Military Tactical Support Equip	1.70E-04	0.00E+00	8.09E-09
2030	Annual	Compressor (Military)	120	Military Tactical Support Equip	9.29E-03	0.00E+00	2.54E-07
2030	Annual	Compressor (Military)	175	Military Tactical Support Equip	5.79E-04	0.00E+00	1.17E-08
2030	Annual	Compressor (Military)	250	Military Tactical Support Equip	1.55E-03	0.00E+00	2.86E-08

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Compressor (Military)	500	Military Tactical Support Equip	9.05E-03	0.00E+00	1.66E-07
2030	Annual	Crane	120	Military Tactical Support Equip	1.46E-03	0.00E+00	2.78E-08
2030	Annual	Crane	175	Military Tactical Support Equip	3.67E-04	0.00E+00	4.92E-09
2030	Annual	Crane	250	Military Tactical Support Equip	3.71E-04	0.00E+00	4.96E-09
2030	Annual	Deicer	120	Military Tactical Support Equip	3.81E-04	0.00E+00	1.04E-08
2030	Annual	Generator (Military)	50	Military Tactical Support Equip	8.89E-04	0.00E+00	4.23E-08
2030	Annual	Generator (Military)	120	Military Tactical Support Equip	4.83E-02	0.00E+00	1.32E-06
2030	Annual	Generator (Military)	175	Military Tactical Support Equip	6.89E-02	0.00E+00	1.39E-06
2030	Annual	Generator (Military)	250	Military Tactical Support Equip	2.76E-02	0.00E+00	5.11E-07
2030	Annual	Generator (Military)	500	Military Tactical Support Equip	1.75E-02	0.00E+00	3.20E-07
2030	Annual	Generator (Military)	750	Military Tactical Support Equip	9.25E-04	0.00E+00	1.70E-08
2030	Annual	Generator (Military)	120	Military Tactical Support Equip	5.52E-03	0.00E+00	1.51E-07
2030	Annual	Hydraulic unit	120	Military Tactical Support Equip	1.65E-04	0.00E+00	4.51E-09
2030	Annual	Lift (Military)	50	Military Tactical Support Equip	2.17E-04	0.00E+00	1.03E-08
2030	Annual	Light	175	Military Tactical Support Equip	3.95E-04	0.00E+00	7.96E-09
2030	Annual	Pressure Washers	50	Military Tactical Support Equip	1.96E-03	0.00E+00	9.33E-08
2030	Annual	Pump (Military)	120	Military Tactical Support Equip	3.90E-03	0.00E+00	1.07E-07
2030	Annual	Pump (Military)	120	Military Tactical Support Equip	8.67E-05	0.00E+00	2.37E-09
2030	Annual	Start Cart	500	Military Tactical Support Equip	2.45E-04	0.00E+00	4.49E-09
2030	Annual	Start Cart	120	Military Tactical Support Equip	2.63E-03	0.00E+00	7.20E-08
2030	Annual	Test Stand	175	Military Tactical Support Equip	2.46E-04	0.00E+00	4.96E-09
2030	Annual	Test Stand	250	Military Tactical Support Equip	5.29E-03	0.00E+00	9.78E-08
2030	Annual	Test Stand	500	Military Tactical Support Equip	3.57E-03	0.00E+00	6.53E-08
2030	Annual	Welder	50	Military Tactical Support Equip	6.37E-04	0.00E+00	3.03E-08
2030	Annual	Welder	120	Military Tactical Support Equip	3.12E-03	0.00E+00	8.53E-08
2030	Annual	Other tactical support equipment	50	Military Tactical Support Equip	4.33E-05	0.00E+00	2.06E-09
2030	Annual	Other tactical support equipment	120	Military Tactical Support Equip	1.10E-03	0.00E+00	3.00E-08
2030	Annual	Other tactical support equipment	175	Military Tactical Support Equip	2.05E-03	0.00E+00	4.13E-08
2030	Annual	Other tactical support equipment	250	Military Tactical Support Equip	1.13E-03	0.00E+00	2.09E-08
2030	Annual	Other tactical support equipment	500	Military Tactical Support Equip	4.68E-04	0.00E+00	8.57E-09
2030	Annual	Other tactical support equipment	750	Military Tactical Support Equip	5.43E-04	0.00E+00	9.96E-09
2030	Annual	Compressors (Workover)	25	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressors (Workover)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressors (Workover)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressors (Workover)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressors (Workover)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressors (Workover)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Compressors (Workover)	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Workover)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Workover)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Workover)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Workover)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Workover)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Workover)	9999	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Workover)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Workover)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Workover)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Workover)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Workover)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Workover)	9999	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Swivel	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Swivel	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Swivel	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Swivel	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snubbing	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other Workover Equipment	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other Workover Equipment	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other Workover Equipment	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other Workover Equipment	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Other Workover Equipment	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Lift (Drilling)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Lift (Drilling)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Lift (Drilling)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Lift (Drilling)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Lift (Drilling)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Drilling)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Drilling)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Drilling)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Drilling)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Drilling)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pump (Drilling)	9999	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Drilling)	50	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Drilling)	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Drilling)	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Drilling)	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Drilling)	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Generator (Drilling)	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig	120	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig	175	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig	250	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig	500	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig	750	Oil Drilling	0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig	1000	Oil Drilling	0.00E+00	0.00E+00	0.00E+00

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Drill Rig (Mobile)	50 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig (Mobile)	120 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig (Mobile)	175 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig (Mobile)	250 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig (Mobile)	500 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig (Mobile)	750 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Drill Rig (Mobile)	1000 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Workover Rig (Mobile)	50 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Workover Rig (Mobile)	120 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Workover Rig (Mobile)	175 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Workover Rig (Mobile)	250 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Workover Rig (Mobile)	500 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Workover Rig (Mobile)	750 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Workover Rig (Mobile)	1000 Oil Drilling		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Pressure Washers					
2030	Annual	Misc Portable Equipment	120 Other Portable Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Misc Portable Equipment	175 Other Portable Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Misc Portable Equipment	250 Other Portable Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Misc Portable Equipment	500 Other Portable Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Misc Portable Equipment	750 Other Portable Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Misc Portable Equipment	1000 Other Portable Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Vessels w/Outboard Engines	2 Pleasure Craft		4.54E-03	2.01E-06	1.86E-05
2030	Annual	Vessels w/Outboard Engines	15 Pleasure Craft		7.54E-01	7.35E-04	2.82E-03
2030	Annual	Vessels w/Outboard Engines	25 Pleasure Craft		6.83E-01	4.01E-04	1.72E-03
2030	Annual	Vessels w/Outboard Engines	50 Pleasure Craft		2.25E+00	7.32E-04	2.56E-03
2030	Annual	Vessels w/Outboard Engines	120 Pleasure Craft		4.18E+00	9.84E-04	4.36E-03
2030	Annual	Vessels w/Outboard Engines	175 Pleasure Craft		3.44E+00	6.24E-04	3.56E-03
2030	Annual	Vessels w/Outboard Engines	250 Pleasure Craft		1.30E+00	2.55E-04	1.21E-03
2030	Annual	Vessels w/Outboard Engines	500 Pleasure Craft		3.66E-01	1.41E-05	4.71E-04
2030	Annual	Sailboat Auxiliary Outboard Engin	15 Pleasure Craft		1.65E-03	1.57E-06	6.18E-06
2030	Annual	Sailboat Auxiliary Outboard Engin	25 Pleasure Craft		2.22E-03	1.45E-06	5.61E-06
2030	Annual	Sailboat Auxiliary Outboard Engin	50 Pleasure Craft		7.51E-03	2.64E-06	8.52E-06
2030	Annual	Personal Water Craft	9999 Pleasure Craft		8.25E+01	1.68E-02	6.38E-02
2030	Annual	Vessels w/Inboard Engines	250 Pleasure Craft		4.04E+01	6.37E-03	7.56E-03
2030	Annual	Vessels w/Outboard Engines	50 Pleasure Craft		4.62E-01	2.09E-04	2.36E-04
2030	Annual	Vessels w/Sterndrive Engines	250 Pleasure Craft		5.12E+01	9.04E-03	9.10E-03
2030	Annual	Sailboat Auxiliary Inboard Engine	15 Pleasure Craft		4.64E-03	3.63E-06	2.33E-06
2030	Annual	Vessels w/Inboard Jet Engines	500 Pleasure Craft		7.30E+00	1.06E-03	1.35E-03
2030	Annual	Vessels w/Inboard Engines	250 Pleasure Craft		3.23E+00	0.00E+00	1.60E-03
2030	Annual	Sailboat Auxiliary Inboard Engine	50 Pleasure Craft		1.17E-02	0.00E+00	5.81E-06
2030	Annual	Compressor (Railyard)	120 Railyard Operations		8.97E-04	0.00E+00	3.83E-08
2030	Annual	Crane (Rail-CHE)	120 Railyard Operations		7.44E-04	0.00E+00	3.17E-08
2030	Annual	Crane (Rail-CHE)	175 Railyard Operations		1.18E-03	0.00E+00	2.49E-08
2030	Annual	Materials Handling (Rail-CHE)	120 Railyard Operations		8.16E-04	0.00E+00	3.48E-08
2030	Annual	Generator (Railyard)	175 Railyard Operations		7.96E-04	0.00E+00	1.69E-08
2030	Annual	Generator (Railyard)	9999 Railyard Operations		5.03E-03	0.00E+00	1.05E-07
2030	Annual	Off-Road Motorcycles Inactive	15 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Off-Road Motorcycles Inactive	25 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Off-Road Motorcycles Inactive	50 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Off-Road Motorcycles Inactive	120 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowmobiles Inactive	25 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowmobiles Inactive	50 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Snowmobiles Inactive	120 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	All Terrain Vehicles (ATVs) Inactive	15 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	All Terrain Vehicles (ATVs) Inactive	25 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	All Terrain Vehicles (ATVs) Inactive	50 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Off-Road Motorcycles Inactive	15 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Off-Road Motorcycles Inactive	25 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Off-Road Motorcycles Inactive	50 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	All Terrain Vehicles (ATVs) Inactive	15 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	All Terrain Vehicles (ATVs) Inactive	25 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	All Terrain Vehicles (ATVs) Inactive	50 Recreational Equipment		0.00E+00	0.00E+00	0.00E+00
2030	Annual	Off-Road Motorcycles Active	15 Recreational Equipment		2.13E-01	7.19E-05	3.98E-03
2030	Annual	Off-Road Motorcycles Active	25 Recreational Equipment		1.83E-01	6.19E-05	3.43E-03
2030	Annual	Off-Road Motorcycles Active	50 Recreational Equipment		1.49E+00	5.04E-04	2.79E-02
2030	Annual	Off-Road Motorcycles Active	120 Recreational Equipment		7.13E-01	2.41E-04	1.34E-02
2030	Annual	Snowmobiles Active	25 Recreational Equipment		4.86E-03	4.85E-06	3.58E-05
2030	Annual	Snowmobiles Active	50 Recreational Equipment		4.35E-02	3.22E-05	3.21E-04
2030	Annual	Snowmobiles Active	120 Recreational Equipment		1.35E-01	7.80E-05	9.98E-04
2030	Annual	All Terrain Vehicles (ATVs) Active	15 Recreational Equipment		2.33E-01	7.88E-05	4.37E-03
2030	Annual	All Terrain Vehicles (ATVs) Active	25 Recreational Equipment		1.52E-01	5.13E-05	2.84E-03
2030	Annual	All Terrain Vehicles (ATVs) Active	50 Recreational Equipment		2.00E-01	6.75E-05	3.74E-03
2030	Annual	Golf Carts	15 Recreational Equipment		6.18E+00	5.64E-03	3.32E-03
2030	Annual	Specialty Vehicles Carts	15 Recreational Equipment		8.31E-01	6.83E-04	3.56E-04
2030	Annual	Off-Road Motorcycles Active	15 Recreational Equipment		4.15E-01	1.12E-03	2.47E-04
2030	Annual	Off-Road Motorcycles Active	25 Recreational Equipment		6.69E-01	1.80E-03	3.99E-04
2030	Annual	Off-Road Motorcycles Active	50 Recreational Equipment		6.97E-01	1.88E-03	4.15E-04
2030	Annual	All Terrain Vehicles (ATVs) Active	15 Recreational Equipment		1.90E-01	5.91E-04	1.19E-04
2030	Annual	All Terrain Vehicles (ATVs) Active	25 Recreational Equipment		2.65E+00	8.22E-03	1.66E-03
2030	Annual	All Terrain Vehicles (ATVs) Active	50 Recreational Equipment		1.20E-01	3.71E-04	7.48E-05
2030	Annual	Minibikes	5 Recreational Equipment		7.30E-03	5.17E-05	4.96E-04
2030	Annual	Golf Carts	15 Recreational Equipment		4.83E+00	4.86E-03	3.15E-03

Table GHG-8d: OFFROAD Model Output for Monterey County for 2030

CY	Season	Equipment	MaxHP	Class	CO2 Exhaust	N2O Exhaust	CH4 Exhaust
2030	Annual	Specialty Vehicles Carts		5 Recreational Equipment	1.84E-02	1.40E-05	1.51E-05
2030	Annual	Specialty Vehicles Carts		15 Recreational Equipment	3.49E-01	2.87E-04	1.50E-04
2030	Annual	Specialty Vehicles Carts		25 Recreational Equipment	5.20E-01	2.62E-04	2.29E-04
2030	Annual	Transport Refrigeration Units		15 Transport Refrigeration Units	4.45E-01	3.76E-04	2.90E-04
2030	Annual	Transport Refrigeration Units		15 Transport Refrigeration Units	2.39E+00	0.00E+00	2.24E-04
2030	Annual	Transport Refrigeration Units		25 Transport Refrigeration Units	1.10E+00	0.00E+00	1.19E-04
2030	Annual	Transport Refrigeration Units		50 Transport Refrigeration Units	9.00E+01	0.00E+00	6.10E-03
					8.43E+02	8.76E-02	2.40E-01
					307,679	9,915	1,841

Table GHG-9: Fugitive Pipeline Emission Calculations

Department of Finance - E-2, 2006 population	37,274,618
CARB - Inventory - 2006 CH4 emissions from NG pipeline	1,900,000
Tons CO2e/capita	0.0510
2006 Monterey County (uninc.) population	106,279
2030 projection	135,375
Buildout projection	210,659
2006 Fugitive CH4 MT	5,417
2030 Fugitive CH4 MT	6,900
Buildout Fugitive CH4 MT	10,738

Table GHG-10 Projected AWCP Winery and Ancillary Use Yearly Building Energy Emissions

New Wineries						
Type of Winery	Units	Gallons	Number of Wineries	Total Energy Emissions (MT CO2e)		
Artisan (25K cases per year)	gallons	59,500	40			899
Full-scale (75K cases per year)	gallons	178,500	5			337
Full-scale (175K cases per year)	gallons	416,500	2			315
Full-scale (375K cases per year)	gallons	892,500	1			337
Full-scale (750K cases per year)	gallons	1,785,000	1			674
Full-scale (1.5M cases per year)	gallons	3,570,000	1			1,349
Total GHG Energy Emissions - new wineries	gallons		50			3,911
Ancillary Uses						
Ancillary Use	Units	Size	Number	Electricity (MWh)	Natural Gas (CO2e)	Total Energy Emissions (MT CO2e)
Winery Tasting Rooms (as restaurant)	Square feet	1,000	10	384.00	23.70	177
Restaurants	Square feet	2,500	3	288.00	16.62	270
Delicatessens (as high-turnover restaurant)	Square feet	1,500	5	288.00	17.15	17
Inns	rooms	10	8	810.00	142.16	952
Subtotal						1,416
Total GHG Emissions from Building Energy Emissions						
Total Winery and Ancillary Uses						5,327

NOTE:
Transportation Emissions for wineries and ancillary uses included in overall transportation emissions estimate derived from VMT from traffic evaluation.
Inns assumed to be 7,500 square feet each.

Sources for Factors:
Colman, Tyler and Paster, Pablo. 2007. Red, White and "Green": The cost of Carbon in the Global Wine Trade. American Association of Wine Economists (AAWE) Working Paper No. 9. October. *Factor for Electricity and Natural Gas related CO2 emissions of 100 g CO2 per bottle (750ml), which is equivalent to 0.83 lb/gallon.*
Energy Information Agency (EIA). 2008. 2003 Commercial Building Energy Consumption Survey (CBECS). Table E6A. Electricity Consumption (kWh) Intensities by End Use for All Buildings. *Electricity demand factor for restaurant of 38.4 kWh/square foot and 13.5 kWh/square foot for hotel.*
Climate Action Registry. 2009. The Climate Registry General Reporting Protocol. Version 3.1. Accessed: January 21, 2010. Available: <http://www.climateregistry.org/tools/protocols/general-reporting-protocol.html>. *Electricity emission factors for CO2, N2O, and CH4.*
Rimpo and Associates. 2007. URBEMIS (Urban Emissions) 2007 Model, Version 9.2.4. Available on the web at: <http://www.urbemis.com>. *Natural gas-related CO2 for ancillary uses.*

Table GHG-11a
Change in Carbon Sequestration, 2006 to 2030
(Carbon Dioxide Equivalent)

Change in Annual Sequestration (MT CO ₂ e)	-1,924	Converted to CO ₂ using molecular weight
Change in Stock (MT CO ₂ e)	-578,917	
Annualized Change at 2030 (MT CO ₂ e)	-26,046	Stock Loss Divided by 24 years plus annual loss at 2030

Table GHG-11b
Change in Carbon Sequestration, 2006 to 2092
(Carbon Dioxide Equivalent)

Change in Annual Sequestration (MT CO ₂ e)	-7,090	Converted to CO ₂ using molecular weight
Change in Stock (MT CO ₂ e)	-2,181,726	
Annualized Change at 2030 (MT CO ₂ e)	-31,882	Stock Loss Divided by 88 years plus annual loss at 2092

Table GHG-11c
Monterey County, Change in Land Cover, 2006 to 2030 (acres)

	2006 Land Cover	Urban Conversions to 2030	Agricultural Conversions to 2030	2030 Land Cover	Net Change
Grassland	717,588	-2,370	-8,243	706,975	-10,613
Woodland	648,478	-1,003	-1,231	646,243	-2,234
Coniferous Forest	56,692	-108	-356	56,229	-464
Scrub	336,073	-1,094	-369	334,609	-1,464
Freshwater Marsh	281		-19	262	-19
Tidal Marsh	2,812		-35	2,777	-35
Agriculture	262,199	-720	10,253	271,732	9,533
Developed/Other	96,959	5,296	0	102,255	5,296
Total	2,121,082	0	0	2,121,082	0

Sources:

2006 Land Cover from Table 4.9-1; Urban Change from Table 4.9-7 for natural land cover (27% of total buildout acreage used) and Table 4.2-9 for farmland conversion to urban use; Agricultural conversion from natural land covers from Table 4.9-8

Note: Riparian areas categorized as woodland for this analysis.

Table GHG-11d
Change in Carbon Sequestration, 2006 to 2030

	Net Change in Land Cover (acres)	Annual Sequestration (MT C/year)	Stock Value (MT C)	Change in Annual Sequestration (MT C)	Change in Stock Value (MT C)
Grassland	-10,613	0.004	1.42	-43	-15,032
Woodland ¹	-2,234	0.42	40.00	-949	-89,366
Coniferous Forest	-464	0.49	89.84	-227	-41,643
Scrub	-1,464	0.004	12.14	-6	-17,772
Freshwater Marsh	-19	N/A ²	146.90	N/A ²	-2,828
Tidal Marsh	-35	0.93	80.94	-32	-2,819
Agriculture	9,533	0.08	1.21	733	11,574
Developed/Other	5,296	N/A ³	N/A ³	N/A ³	N/A ³
Total	0			-525	-157,887

References

California Energy Commission (CEC). 2004. Baseline Greenhouse Gas Emissions for Forest, Range, and Agricultural Lands in California. Final Report. 500-04-069F. March. (*Annual sequestration value for woodland and forest and stock values for grassland, scrub, and agriculture*).

Gaman, Tom. 2008. Oaks 2040: Carbon REsources in California Oak Woodlands. Prepared for the California Oak Foundation (*Stock value for central coast oak woodlands*)

Kroodsma and Fields (2006), Carbon Sequestration in California Agriculture, 1980-2000, Ecological Applications: Vol. 16, No. 5, pp. 1975-1986 (*Annual sequestration value for agriculture*).

United States Climate Change Science Program (USCCSP). 2007. The First State of the Carbon Cycle Report (SOCCR): The North American Carbon Budget and Implications for the Global Carbon Cycle. Synthesis and Assessment Product 2.2. November. (*Annual sequestration value for scrub, freshwater and tidal marsh and stock value for freshwater and tidal marsh and forest*).

Notes:

¹ Riparian areas categorized as woodland for this analysis as tend to consist of hardwood.

² Freshwater marsh excluded from annual sequestration calculation as annual production of methane tends to offset annual sequestration of carbon such that many freshwater marshes may actually be a net source of greenhouse gas emissions (USCCP 2007). For this analysis, the net annual sequestration for freshwater marshes are assumed to be zero.

³ Annual sequestration and stock values for developed/other lands assumed to be zero.

Table GHG-11e
Change in Carbon Sequestration, 2006 to 2030
(Carbon Dioxide Equivalent)

Change in Annual Sequestration (MT CO ₂ e)	-1,924	Converted to CO ₂ using molecular weight
Change in Stock (MT CO ₂ e)	-578,917	Stock Loss Divided by 24 years plus annual loss at 2030
Annualized Change at 2030 (MT CO ₂ e)	-26,046	

Table GHG-11f
Monterey County, Change in Land Cover, 2006 to 2092 (acres)

	2006 Land Cover	Urban Conversions to 2092	Agricultural Conversions to 2092	2092 Land Cover	Net Change
Grassland	717,588	-8,779	-31,472	677,337	-40,251
Woodland	648,478	-3,715	-4,701	640,062	-8,416
Coniferous Forest	56,692	-399	-1,358	54,935	-1,757
Scrub	336,073	-4,053	-1,411	330,609	-5,464
Freshwater Marsh	281		-74	207	-74
Tidal Marsh	2,812		-133	2,679	-133
Agriculture	262,199	-2,571	39,148	298,775	36,577
Developed/Other	96,959	19,518	0	116,478	19,518
Total	2,121,082	0	0	2,121,082	0

Sources:

2006 Land Cover from Table 4.9-1; Urban Change from Table 4.9-7 for natural land cover and Table 4.2-9 for farmland conversion to urban use; Agricultural conversion from natural land covers from Table 4.9-8

Note: Riparian areas categorized as woodland for this analysis.

Table GHG-11g
Change in Carbon Sequestration, 2006 to 2092

	Net Change in Land Cover (acres)	Annual Sequestration (MT C/year)	Stock Value (MT C)	Change in Annual Sequestration (MT C)	Change in Stock Value (MT C)
Grassland	-40,251	0.004	1.42	-163	-57,012
Woodland ¹	-8,416	0.42	40.00	-3,576	-336,622
Coniferous Forest	-1,757	0.49	89.84	-861	-157,891
Scrub	-5,464	0.004	12.14	-22	-66,335
Freshwater Marsh	-74	N/A ²	146.90	N/A ²	-10,797
Tidal Marsh	-133	0.93	80.94	-124	-10,765
Agriculture	36,577	0.08	1.21	2,812	44,406
Developed/Other	19,518	N/A ³	N/A ³	N/A ³	N/A ³
Total	0			-1,934	-595,016

References

California Energy Commission (CEC). 2004. Baseline Greenhouse Gas Emissions for Forest, Range, and Agricultural Lands in California. Final Report. 500-04-069F. March. (*Annual sequestration value for woodland and forest and stock values for grassland, scrub, and agriculture*).

Gaman, Tom. 2008. Oaks 2040: Carbon REsources in California Oak Woodlands. Prepared for the California Oak Foundation (*Stock value for central coast oak woodlands*)

Kroodsma and Fields (2006), Carbon Sequestration in California Agriculture, 1980-2000, Ecological Applications: Vol. 16, No. 5, pp. 1975-1986 (*Annual sequestration value for agriculture*).

United States Climate Change Science Program (USCCSP). 2007. The First State of the Carbon Cycle Report (SOCCR): The North American Carbon Budget and Implications for the Global Carbon Cycle. Synthesis and Assessment Product 2.2. November. (*Annual sequestration value for scrub, freshwater and tidal marsh and stock value for freshwater and tidal marsh and forest*).

Notes:

¹ Riparian areas categorized as woodland for this analysis as tend to consist of hardwood.

² Freshwater marsh excluded from annual sequestration calculation as annual production of methane tends to offset annual sequestration of carbon such that many freshwater marshes may actually be a net source of greenhouse gas emissions (USCCP 2007). For this analysis, the net annual sequestration for freshwater marshes are assumed to be zero.

³ Annual sequestration and stock values for developed/other lands assumed to be zero.

Table GHG-11h
Change in Carbon Sequestration, 2006 to 2092
(Carbon Dioxide Equivalent)

Change in Annual Sequestration (MT CO2e)	-7,090	Converted to CO2 using molecular weight
Change in Stock (MT CO2e)	-2,181,726	
Annualized Change at 2030 (MT CO2e)	-31,882	Stock Loss Divided by 88 years plus annual loss at 2030

Table GHG-11i: Sequestration Literature Values (MT CO2e/acre)

	Sequestration Value	Source	Stock Value	Source
Grasslands	0.00405	USCCP 2007	1.42	CEC 2004
Oak Woodlands	0.42492	CEC 2004	40.00	Gaman 2008 for Central Coast Woodlands
Forest (fir-spruce)	0.49000	CEC 2004	89.84	USCCP 2007
Shrub	0.00405	USCCP 2007	12.14	CEC 2004
Agriculture	0.077	Kroodsma and Field 2006	1.21	CEC 2004
Freshwater Wetlands	0.0850	USCCP 2007	146.90	USCCP 2007
Tidal Wetlands	0.9308	USCCP 2007	80.94	USCCP 2007
Settled Lands	0.1255	USCCP 2007	4.05	USCCP 2007