Chapter 4
Other CEQA-Required Sections

Introduction

This chapter contains analyses of the Proposed Project's and the 130-Unit Alternative's potential to contribute to cumulative impacts in the region, induce growth, and result in significant, irreversible environmental changes. Resource topics for which no significant impacts were identified are also included in this chapter.

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

- DKS Associates 2007. *Carmel Valley Master Plan Traffic Study*.
- Monterey County 2008. *2007 Monterey County General Plan Draft Environmental Impact Report*.
- Monterey County 2010. *2010 Monterey County General Plan*.
- Monterey County 2013. Amended *Carmel Valley Master Plan*.
- USACE 2014. *Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project*.
- Monterey County 2014. *County Service Area 50 Lower Carmel River Stormwater and Flood Control Program Update*.
- Central Coast Transportation Consultants 2015. *Rancho Cañada Traffic Impact Study*.
- Carmel River Watershed Conservancy 2015. *Active Projects in the Carmel River Watershed* (re: Lower Carmel River Floodplain Restoration and Environmental Enhancement Program).
- State Water Resources Control Board. 2014/2015. *Eastwood/Odello Water Right Change Petition EIR*.

Cumulative Impacts

CEQA Requirements

Section 15130 of the California Environmental Quality Act (CEQA) Guidelines requires lead agencies to evaluate a proposed undertaking's potential to contribute to cumulative impacts in the project or program area.

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

> [t]he change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines Sec. 15355(b)).

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

Assumptions and Methods

The following assumptions and methods were used in this analysis of cumulative impacts.

- A cumulatively considerable impact occurs only if the Proposed Project or 130-Unit Alternative would contribute something to the total cumulative effect. A cumulatively considerable impact is more likely to occur if either the Proposed Project's or 130-Unit Alternative's contribution or the prevailing negative conditions are substantial.
- Pursuant to State CEQA Guidelines Sections 15064 and 15130, a project's incremental contribution to a cumulative impact is not cumulatively considerable if the project would comply with the requirements of a previously approved plan or mitigation program that provides specific requirements that would substantially lessen the cumulative impact, or if the project would contribute its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- All direct effects of the Proposed Project and 130-Unit Alternative have the potential to contribute to cumulatively considerable impacts, even if they are individually less than significant.
- The indirect effects of the proposed water transfer of 60 acre-feet (AF) included in the 130-Unit Alternative are addressed under *Growth Inducement* separate from the cumulative analysis. The cumulative analysis, as discussed below, includes the general buildout within the Carmel Valley Master Plan (2013) CVMP area and in the County in general, which would include any development facilitated by the proposed water transfer.
- The geographic region affected by cumulative impacts varies by resource; for instance, the region affected by cumulative air quality impacts may be larger than the region affected by cumulative noise effects.
- This analysis incorporates past projects by acknowledging their contribution to existing negative or sensitive conditions.

Two geographic settings were identified for the cumulative analysis (**Table 4-1**).

- **Project vicinity.** This setting consists of the project site and any adjacent areas for which there could be a combined effect on a particular resource.
- **Carmel Valley and beyond.** This setting encompasses the Monterey Peninsula and extends beyond Monterey County.

There are two approaches to identifying related past, present, and reasonably foreseeable projects and their impacts. The list approach identifies individual projects to identify potential cumulative impacts. The projection approach uses a summary of projections in an adopted general plan or related planning document to identify potential cumulative impacts. In this document, both the list and the projection approach were used, depending on the resource topic.

As described in Section 3.7, *Transportation and Traffic*, the future-year scenarios address conditions in 2030 with existing traffic increased by increased growth to 2030.

Table 4-1. Cumulative Analysis Approach and Applicable Geographic Setting by Resource Area

Resource Topic	Cumulative Analysis Approach	Geographic Setting	
		Project Vicinity	Carmel Valley and Beyond
Geology, Seismicity, Soils	List	X	
Hydrology and Water Quality	List	X	X
Biological Resources	List/Projection	X	X
Aesthetics	List	X	
Land Use	Projection	X	
Hazards and Hazardous Materials	Projection		X
Transportation and Traffic	Projection	X	X
Air Quality	Projection		X
Noise and Vibration	Projection/List	X	
Public Services and Utilities	Projection	X	X
Cultural Resources	List	X	
Population and Housing	Projection		X
Greenhouse Gas Emissions and Climate Change	Projection		X

Potential Plans and Projects with Related or Cumulative Impacts

The potential for project-generated construction effects to contribute to a significant cumulative impact would arise if several projects with similar effects were being constructed concurrently with the Proposed Project or 130-Unit Alternative and within the same geographic area. This geographic area may vary, depending on the issue area discussed and the geographic extent of the potential impact. The potential for project operational effects to contribute to a significant cumulative impact would arise if buildout of the area were to result in significant cumulative impacts over time.

Approach

Cumulative Buildout in the Carmel Valley Master Plan Area

The 2013 CVMP has specific limits on development in the CVMP area as follows:

Residential Development Potential with the 2013 CVMP

The 2013 CVMP allows the following residential development.

- New residential subdivision in Carmel Valley is limited to the creation of 190 new units. The first single-family dwelling unit on existing legal lots do not count as part of the total unit cap.
- Of the 190 new units in new subdivisions, 24 units are reserved for consideration of the Delfino property in Carmel Valley Village (former Carmel Valley Airport site), leaving 166 units.
- As described in Chapter 2, Project Description, approval of the Proposed Project would require modification of the CVMP limit from 190 units to 305 units (to allow for 281 units for the Proposed Project and 24 units for the Delfino Property. If the CVMP were amended and the project approved, there would be no new units allowed in other new subdivisions. There would still be new units on existing legal lots and in previously approved subdivisions at other locations.
- With the 130-Unit Alternative, there would be 60 units remaining in the quota. Of those 60 units, 24 are reserved for the Delfino property, so 36 units could be used for other new subdivisions (including the Val Verde property). Thus, cumulative development with the 130-Unit Alternative includes the potential for the Val Verde subdivision. There would also still be new units on existing legal lots and in previously approved subdivisions at other locations.

Visitor-serving and Commercial Development Potential under the 2013 CVMP

- Visitor-serving Units – Based on the 2013 CVMP, 285 visitor-serving units may be built in the CVMP area. Since 2010, 16 visitor-serving units have been approved, leaving 269 allowable new visitor-serving units.
  - Bed and breakfast facilities will be counted as visitor accommodation units and be limited to a maximum of five units clustered on five acres, unless served by public sewers.
  - A maximum of 110 additional visitor accommodation units approved east of Via Mallorca, including units at Carmel Valley Ranch. Since 2010, 16 visitor-serving units have been approved in this area, leaving 94 allowable visitor-serving units east of Via Mallorca.
  - All development of visitor accommodations in the area west of Via Mallorca and north of Carmel River will be limited to moderately sized facilities, not to exceed 175 units. No new visitor-serving units have been approved in this area since 2010.
- Commercial Development – The 2010 *Monterey County General Plan* allows 52 acres of new commercial in Carmel Valley (Monterey County 2010).
- The Proposed Project and the 130-Unit Alternative would not affect the visitor-serving or commercial buildout potential because they do not include visitor-serving units or development on commercially designated land.

Cumulative Buildout in the 2010 Monterey County General Plan

The Environmental Impact Report (EIR) for the Monterey County General Plan Update projected that by 2030, there would be approximately 74,573 housing units and a population of 207,424 in the unincorporated areas of the county, including development in the CVMP (Monterey County 2008).

Specific Projects Considered in the Cumulative Impact Analysis

Figure 4-1 shows the approximate location of the following projects considered in this analysis. This list only includes projects in relative close proximity to the proposed project. Other development in other more distant parts of Carmel Valley (or the rest of the County) are accounted for in the cumulative analysis through the consideration of land use projections for cumulative growth. These specific projects are considered in relevance to localized impacts for the cumulative analysis.

Trust for Public Land Proposed Purchase of the Rancho Canada East Golf Course (Hatton Parcel)

The Trust for Public Land (TPL) announced in April 2016 that it will buy a 140-acre parcel (the Hatton Parcel) that contains most of the Rancho Canada East golf course. The long-term plan is to transfer the property to the Monterey Peninsula Regional Park District. Santa Lucia Conservancy and Trout Unlimited are also partners to this effort. If the acquisition comes to fruition, there are possibilities of a creation of a trail connecting Palo Corona park with the Jack Peak County park and the Joyce Stevens Monterey Pine Forest Preserve as well as trails onsite and onsite restoration of riparian and other habitat. The acquisition would also reduce the amount of water currently pumped from the Carmel River aquifer for golf course irrigation. Reportedly, escrow may close on the land deal as soon as May 2016.

There have also reportedly been talks with conservation groups to also buy an adjacent 50-acre parcel of land owned by the Lombardo family.

Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project

This project proposes a comprehensive plan to promote improvement in ecological function of the lagoon, including natural floodplain function and improvement of habitat for federally listed species associated with the lagoon, by allowing the lagoon to breach naturally, without increase in flood and erosion risk to private structures and public facilities. The project area includes Carmel Lagoon and adjacent wetland, riparian, and coastal strand habitats. The project is intended to provide a long-term solution to flooding and habitat impact issues that avoid unauthorized take of listed species in compliance with federal law, while maintaining the existing level of protection to properties and infrastructure (U.S. Army Corps of Engineers 2014). This project is approximately 1.5 miles downstream of the project site and is in the planning phase.

County Service Area 50 Lower Carmel River Stormwater and Flood Control Program Update

Monterey County Water Resources Agency and the Monterey Peninsula Water Management District completed a stormwater and flood control project in the County Service Area 50 – Lower Carmel River (CSA-50). The report reviewed the flood risks and hazards in the area. The project elements are described in terms of the infrastructure required to minimize flood hazards in the area. The CSA-50 area is immediately west of the Proposed Project. The Proposed Project's and 130-Unit Alternative's proposed tieback levee on Rio Road west would be on the eastern borderline of the CSA-50. This project is in the study phase (Monterey County 2014).

Val Verde Drive ("Carmel Rio Road")

This project proposes to develop 31 units on a 7-acre site. This project is approximately 0.9 mile west of the project site and is in the planning phase (Carmel Valley Association 2014). The Val Verde

Drive area is planned for residential use at a basic density of one unit per acre. With suitable clustering, up to two units per acre may be allowed. However, a density of up to four units per acre may be allowed if at least 25 percent of the units are developed for individuals of low and moderate income or for Workforce Housing. The units on this property would count against the residential unit quota. As noted above, with approval of the Proposed Project, no new subdivisions would be allowed for the Val Verde project but with approval of the 130-Unit Alternative, there would be 36 units remaining in the quota (190 units allowed overall minus 24 units for Delfino minus 130 units = 36 remaining).

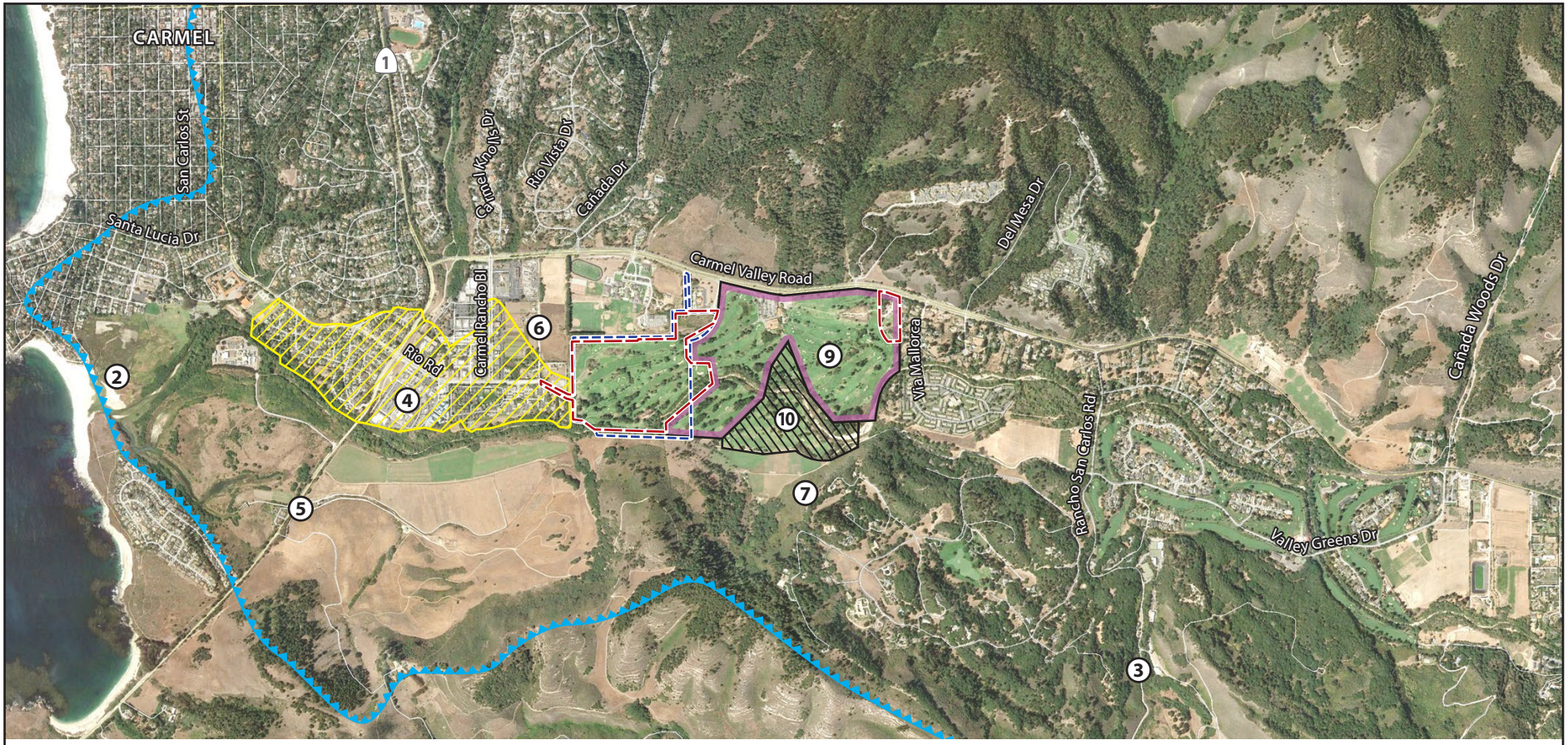
Lower Carmel River Floodplain Restoration and Environmental Enhancement Program

This is a multi-objective project that proposes to restore natural floodplain function to 90 acres of the Odello East property owned by the Big Sur Land Trust and the Eastwood Family. The main components of the project include the construction of a 520-foot flood bypass or causeway under State Route 1 (SR 1) to reduce potential flood hazards and improve site connectivity with adjacent floodplain to the west, the removal of approximately 2,900 feet of non-engineered farm levees located along the northern boundary of the site in conjunction with improvements on the East and South levees in the Odello East property, and the creation of public trails for public access and recreation. The project area is bounded by SR 1 to the west, the main channel of the Carmel River and the Crossroads Shopping Center to the north, State Park lands to the west, and Monterey Peninsula Regional Park District land to the south and east . The Carmel River is located immediately north of the site. The project boundary is immediately south of the golf course west, approximately 0.03 mile south of the project site. A Draft EIR is being prepared and scheduled for release in Spring 2016 (The Carmel River Watershed Conservancy 2015).

Eastwood/Odello Water Right Change Petition (Water Right Application No. 30497).

The proposed project includes State Water Board action on the petition of Clint Eastwood and the Margaret Eastwood Trust (collectively "Eastwood") to split existing License 13868 into two new licenses, 13868A and 13868B. Existing License 13868 authorizes the diversion of water from the Carmel River subterranean flow for the purpose of use of irrigation of a 99-acre area south of the Carmel River and east of State Route 1 (SR 1). License 13868 authorizes a maximum annual diversion rate and a maximum instantaneous diversion rate from points of diversion located on the Eastwood property during the year round season (January –December).

Proposed new License 13868A would maintain both of the existing points of diversion, place of use and purpose of use currently authorized under License 13868 and would add new points of diversion, expand the place of use, and add a new purpose of use to allow municipal use to serve existing lots of record in the parts of Cal-Am's service area that are within the Carmel River watershed or the City of Carmel-by-the-Sea. Proposed new License 13868B would dedicate a portion of water under License 13868 to instream uses. While the project would result in the creation of two new licenses, which would supersede the existing license, the proposed project would not increase the maximum authorized annual diversion rate or the maximum authorized instantaneous rate beyond the rates established in License 13868. All diversions in connection with the project would occur through existing Cal-Am wells and all conveyances would be through existing Cal-Am facilities. Consequently, the project does not include the construction of any new water distribution system improvements or other physical elements. In addition to the changes to the existing license, the project also would involve the adoption of a new rule by the MPWMD. The new rule, which would be similar to District Rule 23.5, would allow MPWMD to issue water use



Legend

- Proposed Project
- 130-Unit Alternative

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Image: Google Inc. 2015. Google Earth Pro, Version 7.1. Mountain View, CA. Accessed: March 13, 2015.

Cumulative Projects

1. Eastwood/Odello Water Right Change Petition (Locations not shown)
2. Carmel Lagoon Ecosystem Protective Barrier, Scenic Road Protection Structure, and Interim Sandbar Management Plan Project
3. Heritage Oaks Development
4. Lower Carmel River Stormwater Management and Flood Control Project
5. Palo Colorado Parking Lot and Entrance off Highway 1
6. Val Verde Drive
7. Lower Carmel River Floodplain Restoration and Environmental Enhancement Program
8. County Service Area 50 Lower Carmel River Stormwater and Flood Control Program Update (Location not shown, but west of project site)
9. Proposed trust for Public Land Acquisition 140 ac.)
10. Lombardo Land Group Property (50 ac.): No development currently proposed; potential conservation acquisition

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Figure 4-1
Cumulative Projects in the Project Area

permits to owners of existing lots of record within the parts of Cal-Am's service area that are within the Carmel River watershed or the City of Carmel-by-the-Sea, and that have entered into subscription agreements with the licensee

According to the project EIR, the project would not result in any significant and unavoidable direct impacts to biological resources or hydrology (or other environmental subjects). The project provided water supply could be used to serve a combination of commercial, residential, and public facility-related uses within the Carmel River watershed and the City of Carmel-by-the-Sea. As identified in the EIR, the precise combinations and types of growth that could occur in connection with the project are unknown, and the identification of potential growth due to the project is inherently speculative. The EIR estimates that the project could potentially accommodate approximately 171 to 342 new residential units on existing lots. The EIR notes that the project would also facilitate commercial growth and development. Due to the restricted nature of municipal use under proposed License 13868A and the limited amount of water that could be made available under proposed License 13868A, the proposed project would not induce population growth beyond existing planned levels. Rather, the proposed project would accommodate development on existing legal lots of record, including remodels or expansions of use, renovation of existing uses, and similar activities.

The EIR for this project notes environmental impacts to a variety of environmental resources within the subject area, but describes that all development activities proposed on existing lots of record would be subject to existing City and/or County requirements (i.e., General Plan and Zoning Ordinances) and project-specific environmental review; in addition, these projects would also be required to comply with project-specific conditions of approval, as well as any mitigation measures identified during project-level CEQA review. As a result, the EIR for this project concludes that the potential indirect effects associated with facilitated group would be less-than-significant. (State Water Resources Control Board 2014/2015).

The project applicant agreed to put a significant portion of the proposed municipal diversions toward offsetting Cal-AM's unlawful diversions in the first years after project approval. The application was approved in July 2015.

Palo Colorado Parking Lot and Entrance off Highway 1

This project includes construction of a 57-space public parking area and improvements to an existing access road to the Palo Corona Regional Park. The property is located at Palo Corona Regional Park, east of SR 1, between Ribera (south) and Oliver (north) Roads (Assessor's Parcel Number 243-081-008-000), Carmel Area Land Use Plan, Coastal Zone. This project is southwest of the project site and was adopted in February 2015. (Monterey County, 2015b).

Heritage Oaks Development (PLN060603)

This project proposes to subdivide three existing lots, totaling approximately 103 acres, into a four-lot subdivision for development. The project is along the south side of the Carmel River, west of Rancho San Carlos Road in the Santa Lucia Preserve, south of the project site. The project also involves road installation, minor removal of tree and grading on slopes in excess of 30%. The project has been approved by the County. The one additional unit (4 units compared to three allowable on the three existing lots) would count against the 2013 CVMP residential unit quota.

Traffic Improvement Plan, Carmel Valley

This project includes a public improvement program that includes a specified list of road improvements along Carmel Valley Road and Laureles Grade within the Carmel Valley Master Plan Area in Monterey County and a proposed update of traffic impact fees to pay for the proposed improvements through collection of fees from new development. The plan is under development and has yet to complete the environmental review process (County of Monterey 2015).

Carmel Casitas Affordable Housing Development, Carmel Valley

The Carmel Casitas Affordable Housing Development project, is under development by the Terrex Development Corp. for an 8.4 acre site adjacent to Carmel Valley Road and the Carmel Middle School, just east of the Carmel Rancho Shopping Center. A development was previously proposed in this location in 2004, but the plan did not move forward due to a lack of a water allocation. The project is being reconsidered now with water made available from the Malpaso Water company through the Eastwood-Odello Water Right Petition discussed above. The size of the project has not yet been determined although the developers have indicated that approximately 150 units could be built on the site while maintaining a two-story height limit. Carmel Casitas is planning to be 1, 2, and 3 bedroom units for working families. The developer has been presenting the project informally to the public and certain local groups and will be engaging in design charrettes in spring 2016. No formal application has been submitted to the County planning department and thus this project is not formally considered in this cumulative analysis because to do so would be speculative and premature in nature.

Analysis of Cumulative Impacts

The following analysis describes the potential for the Proposed Project or 130-Unit Alternative, in combination with the cumulative projects and/or buildout, to result in cumulatively significant environmental impacts. Each analysis considers the cumulative setting of the potential impacts. The evaluations identify where the cumulative impact would be significant, and whether the Proposed Project's or 130-Unit Alternative's contribution to a significant cumulative impact would be considerable.

Geology, Soils, and Seismicity

Cumulative Impact GEO-C1: Cumulative Development in Carmel Valley would include new structures that may result in exposure of structures or people to seismic or geologic hazards (less than considerable)

Proposed Project

Cumulative impacts related to geology and soils could occur where regional development patterns place structures and occupants in areas susceptible to geological hazards. A jurisdiction's general plan process includes the mapping of such areas to influence development patterns away from particularly hazardous locations or to identify where special study and architectural and engineering measures would be required to ensure building safety. Regional geological concerns include seismic ground cracking, intense seismic shaking, soil liquefaction, slope stability, and soil shrinking/swelling. The 2010 Monterey County General Plan requires the preparation of geotechnical reports for development projects with potential geologic hazards. These reports

identify potential hazards associated with projects and recommend policies and measures to be followed to ensure structural safety.

Because of widespread seismic activity within California, past, present, and future development continues to place structures and residents/occupants in areas that are susceptible to seismic ground shaking. Strict building code regulations are in place to ensure that structures properly account for seismic shaking and other seismically related hazards. Common adherence to mandatory building code regulations throughout the region would prevent a significant cumulative impact associated with placing new structures on land susceptible to geologic hazards. Given that the Proposed Project would comply with these established policies and the project-specific mitigation measures (see Section 3.1, *Geology, Soils*, *and Seismicity*), the Proposed Project's contribution to a significant cumulative impact would be *less than considerable*. No mitigation is required.

130-Unit Alternative

The 130-Unit Alternative is consistent with the findings for the Proposed Project on cumulative impacts with respect to geological hazards. Past, present, and future development within California is susceptible to seismic ground shaking. Common adherence to mandatory building code regulation throughout the region would prevent a significant cumulative impact associated with placing new structures on land susceptible to geologic hazards. Similar to the Proposed Project, the 130-Unit Alternative would comply with these established policies and with project-specific mitigation measures (see Section 3.1, *Geology, Soils*, *and Seismicity*). The 130-Unit Alternative would have a *less-than-considerable* contribution to a cumulative impact.

Cumulative Impact GEO-C2: Cumulative Accelerated Runoff, Erosion, and Sedimentation (less than considerable with mitigation)

Proposed Project

As described in Section 3.1, *Geology, Soils, and Seismicity*, of this Recirculated Draft EIR, impacts on runoff, erosion, and sedimentation would be *less than significant* with the implementation of mitigation measures. Additionally, any new development would be required to adhere to City, County, State, and federal requirements for the containment of runoff, erosion, and sedimentation as part of the CEQA process. These impacts would be mitigated at the project level, and therefore implementation of the Proposed Project would have *less-than-considerable* contribution to a cumulative impact.

130-Unit Alternative

The 130-Unit Alternative is consistent with the findings for the Proposed Project on cumulative impacts with respect to accelerated runoff, erosion, and sedimentation. Implementation of mitigation measures described in Section 3.1, *Geology, Soils, and Seismicity*, of this Recirculated Draft EIR would reduce impacts on runoff, erosion, and sedimentation to less-than-significant levels. Additionally, any new development would be required to adhere to City, County, State, and federal requirements for the containment of runoff, erosion, and sedimentation as part of the CEQA process. These impacts would be mitigated at the project level, and therefore implementation of the 130-Unit Alternative would have a *less-than-considerable* contribution to a cumulative impact.

Hydrology and Water Quality

Cumulative Impact HYD-C1: Cumulative Impacts on Hydrology and Water Quality (less than considerable with mitigation)

Proposed Project

Future development in the region would require construction, conversion of undeveloped areas, and the creation of impervious surfaces. Portions of the region also lie within the 100-year floodplain, and development within these areas can affect local and regional hydrology during flood events. There will also be projects that will improve flood conditions and ecosystem habitat within the project vicinity.

Residential, commercial, and other cumulative development in the Carmel River watershed could result in increased impervious areas and increased flood flows or levels. However, all development is subject to similar local, State, and federal requirements as the Proposed Project in regard to flood control. Offsetting potential increases in flooding, three different cumulative projects would lower flood potential in the lower Carmel Valley area.

- The CSA-50 Lower Carmel River Stormwater and Flood Control Program Update will reduce flood hazards immediately west of the project site. In the future, should the Monterey County Resource Management Agency (MCRMA) choose to raise Val Verde Road as part of the CSA-50 flood protection project, the Project Applicant has indicated a voluntary willingness to accommodate a 10-foot by 10-foot culvert under the Rio Road west extension to accommodate the 100-year off-site flows from DA-27 (Zischke pers. comm.). As described in Section 3.2, *Hydrology and Water Quality*, the Proposed Project does not have an adverse effect on drainage or flooding in the CSA-50 area and as such, the proposed culvert is not a mandatory mitigation for project effects. In addition, the Proposed Project includes a 84-inch buried pipe to convey DA-27 drainage along the western side of the Rancho Canada site to the Carmel River, which would help in management of DA-27 flows that could otherwise result in flooding in CSA-50.
- The Lower Carmel River Floodplain Restoration and Environmental Enhancement Program will restore natural floodplain function by constructing a flood bypass under SR 1, levee removal, and other improvements and would ultimately provide flood benefits in the project vicinity.
- The Carmel Lagoon Ecosystem Protective Barrier Project will restore natural floodplain function and improve habitat within the Carmel Lagoon. This project is approximately 1.5 miles downstream of the project site, which will provide for increased downstream flood capacity.

As described in Section 3.2, *Hydrology and Water Quality*, of this Recirculated Draft EIR, the Proposed Project includes mitigation measures to ensure that hydrology and water quality impacts would be less than significant. Such policies and mitigation measures are mandated by local, State, and federal regulations, both during construction and operation of projects. This includes compliance with National Pollutant Discharge Elimination System (NPDES) General Construction Permits, NPDES Municipal Stormwater Permits, Waste Discharge Requirements from the Regional Water Quality Control Board and Federal Emergency Management Agency policies regarding construction in a flood plain. Future developers in the region would be required to design and implement measures to ensure that project-level impacts on hydrology and water quality would be less than significant.

Because the Proposed Project, as mitigated, would accommodate stormwater flows, provide for treatment of stormwater, and control water quality during construction, and thus would not contribute considerably to flooding, erosion, or sedimentation, the Proposed Project have a *less-than considerable* contribution to any cumulative impacts.

130-Unit Alternative

The 130-Unit Alternative is generally consistent with the findings for the Proposed Project for cumulative impacts on hydrology and water quality, with the exception of management of offsite drainage from the drainage area north of Lot 130.

As described in Section 3.2, *Hydrology and Water Quality*, the impact on drainage and flooding for the residential element of the 130-Unit Alternative would be lower than that of the Proposed Project because of the smaller number of residential units and the smaller increase in impervious space.

As described above, the 130-Unit Alternative would leave open the potential to develop the Val Verde project, as a residential allotment with up to 31 units. This could result in additional impervious space to the west of the project. However, like the 130-Unit Alternative, local, State, and federal requirements and project-level environmental review would require any such project to address potential hydrology and water quality effects.

While Section 3.2, *Hydrology and Water Quality,* includes mitigation for the 130-Unit Alternative to reduce project-level impacts to less-than-significant levels, the overall development in the region could result in a significant cumulative impact. However, similar to the Proposed Project, future flood protection and habitat enhancement projects would reduce flooding potential in lower Carmel Valley.

Because the 130-Unit Alternative, as mitigated, would accommodate stormwater flows, provide for treatment of stormwater, control water quality during construction, and thus would not contribute considerably to flooding, erosion or sedimentation, the 130-Unit Alternative would have a *less-than-considerable* contribution to any cumulative impacts.

Biological Resources

Cumulative Impact BIO-C1: Cumulative Loss of Biological Resources Including Habitats and Special Status Species (less than considerable with mitigation)

Proposed Project

The CVMP area included substantial areas that are undeveloped and rural in character with limited residential and commercial development relative to their size. Various habitat types are located in the CVMP planning area, including riparian woodlands near the Carmel River and chaparral vegetation on the valley floor. Special-status species such as California red-legged frogs, southwestern pond turtles, migratory birds, and steelhead are known to utilize these habitats.

Construction and maintenance activities associated with cumulative development in the region could result in the direct loss or indirect disturbance of special-status species or their habitats within the County. Impacts on special-status species or their habitats could result in a substantial reduction in local population size, lowered reproductive success, habitat fragmentation, and loss or disturbance of existing wildlife movement corridors.

Construction of the Rancho Cañada Project in combination with other projects would result in cumulative impacts on riparian woodlands, wetlands/ponds, protected trees, habitats for special status species and individual special-status species, and to wildlife movement corridors.

Implementation of the Project's proposed 2006 Rancho Cañada Village Restoration and Mitigation Plan (Zander Associates 2006) would reduce many of these impacts to a less-than-significant level because the proposed restoration would increase the area of riparian habitat and native grassland in the 31-acre Habitat Preserve along the Carmel River. Upon full implementation of the proposed restoration, the riparian habitat along the Carmel River corridor within the project site would be enhanced compared to existing conditions.

However, as discussed in Section 3.3, *Biological Resources*, even with the proposed Restoration Plan, there would remain certain significant impacts that require additional mitigation. Mitigation measures described in Section 3.3, *Biological Resources* would reduce the Project's biological resource impacts to a less-than-significant level through avoidance, minimization, and replacement of disturbed or lost resources both during construction and during operation of the Proposed Project. Implementation of the proposed 2006 Restoration Plan in combination with these mitigation measures would ensure that no net losses of special-status species habitat or sensitive natural vegetation communities result from project development; therefore, contributions to cumulative impacts on special-status species or sensitive natural vegetation communities would also be avoided. The Proposed Project, with mitigation, would be consistent with local policies and ordinances related to the protection of biological resources and therefore would not contribute to cumulative impacts related to these policies and ordinances.

As discussed in Section 3.3, *Biological Resources*, the Proposed Project, in isolation, would have a less-than-significant impact on wildlife movement through two wildlife corridors: from south of the Carmel River through the parcels along Val Verde Drive and from south of the Carmel River through the Carmel Middle School (CMS) Habitat Area to undeveloped areas north of Carmel Valley Road. These two corridors are part of four corridors that provide the potential for north-south wildlife movement from the undeveloped areas south of the Carmel River to undeveloped areas north of Carmel Valley Road (see **Figure 3.3-3**). Cumulative impacts and the Project's contributions are discussed for these four corridors as follows.

- **Val Verde Drive**—Wildlife can currently move from undeveloped areas south of the Carmel River, across the Rancho Cañada Golf Club to agricultural and undeveloped parcels along Val Verde Drive. The Proposed Project would substantially impede wildlife access to these parcels from the Carmel River. The 2013 CVMP allows for residential development on some of the undeveloped parcels along Val Verde Drive, but with approval of the Proposed Project such residential development would be limited to existing legal lots as the subdivision unit quota would be exhausted. The cumulative impact of the Proposed Project and potential limited future residential development along Val Verde Drive would further impede potential wildlife and use of the currently undeveloped parcels. However, as noted in Section 3.3, *Biological Resources*, the effectiveness of this route as a wildlife movement corridor from south of the Carmel River to undeveloped areas north of Carmel Valley Road is diminished as the area immediately north of Carmel Valley Road is a residential development. The combination of Carmel Valley Road and existing development north of the road make this an ineffective wildlife movement corridor. Therefore, loss of this wildlife movement corridor is not considered a cumulatively significant impact.

- **Through CMS Habitat Area**—Wildlife can currently move from undeveloped areas south of the Carmel River, across the Rancho Cañada golf course, through the Hatton and Stemple parcels to the CMS Habitat Area on the school property and northward across Carmel Valley Road to undeveloped areas north of the road. The Proposed Project would substantially impede this wildlife movement corridor. Because of the relatively small size and narrow width of the corridor and the character of this corridor on the CMS habitat in the midst of adjacent development, the loss of this corridor, is considered a less than significant impact, provided that adjacent corridors remained intact. However, as noted below, if the adjacent corridors were to be substantially blocked, then the loss of the corridor through the CMS habitat would be considered significant.

- **Between Rio Road (East) and Rancho Cañada Clubhouse and Between the Clubhouse and Via Mallorca**—Wildlife can currently move from undeveloped areas south of the Carmel River, across the Rancho Cañada golf course between Rio Road (east) and the golf course clubhouse, across the clubhouse access road, and across Carmel Valley Road to undeveloped areas north of the road. The narrowest part (approximately 700 feet) of the corridor is between Rio Road (east) and the clubhouse parking lot. New visitor-serving development could be placed within this corridor as allowed by the 2013 CVMP, which could block this corridor. However, if the TPL acquisition of most of the east golf course occurs, then this area would be used for park and restoration purposes, which would preserve the wildlife corridor.

- **Between Rancho Cañada Clubhouse and residences west of Via Mallorca**—Wildlife can currently move from undeveloped areas south of the Carmel River, across the Rancho Cañada golf course between the clubhouse and the residences west of Via Mallorca, and across Carmel Valley Road to undeveloped areas north of the road. The narrowest part (approximately 1,600 feet) of the corridor is between the clubhouse and the residences west of Via Mallorca. New visitor-serving development could be placed within this corridor as allowed by the 2013 CVMP. However, if the TPL acquisition of most of the east golf course occurs, then this area would be used for park and restoration purposes, which would preserve the wildlife corridor.

The 2013 CVMP allows for development of up to 175 visitor-serving units west of Via Mallorca, but is non-specific as to the location of such development. Although developing within the 100-year floodplain of the Carmel River (as proposed by the Proposed Project) is technically possible, as noted above, it is more likely that visitor-serving development would be placed somewhere between Carmel Valley Road and the 100-year floodplain. If the golf course area were to be preserved, development most likely would occur closer to Carmel Valley Road in the areas west and east of the clubhouse (if the clubhouse were retained). Visitor-serving development often includes additional amenities such as tennis courts, swimming pools, and other services. While unknown how much of the 50-acre area north of the 100-year floodplain might be occupied by the new visitor-serving development and the clubhouse, new development could block or substantially impede wildlife movement through the corridors east and west of the clubhouse.

As noted above, the Trust for Public Land has announced its intention to purchase the 140-acre Hatton parcel containing the clubhouse and most of the east golf course and conservation groups are also in conversations with the Lombardo family about purchasing an additional 50 acres south of the clubhouse that contains land north and south of the Carmel River (see **Figure 4-1**). If both of these acquisitions were to come to fruition, then the area east of the Proposed Project would be retained as a wildlife corridor. If only the Hatton parcel were acquired, there is a possibility of

development of 50-acre area, but there would remain a wildlife corridor on either side of the 50-acre parcel.

However, if the two wildlife movement corridors east and west of the clubhouse were substantially impeded by future cumulative development, then the corridor through the CMS habitat would be the only unimpeded corridor in the part of the Mouth of the Valley between Via Mallorca and SR 1. In this context, loss of the corridor through the CMS habitat area from the Proposed Project would be cumulatively *significant*. **Mitigation Measure BIO-23**, would reduce the cumulative impact of cumulative development on wildlife movement corridors to a *less-than-cumulatively significant level* by ensuring an effective north-south wildlife migration corridor in this part of Carmel Valley.

Mitigation Measure BIO-23 would not be necessary if the TPL acquisition occurs and a wildlife corridor is preserved through the 140-acre parcel.

130-Unit Alternative

The 130-Unit Alternative would make similar contributions to cumulative impacts on biological resources as the Proposed Project. Lot 130 is already developed and would not add to cumulative impacts on wildlife movement. Therefore, impacts and mitigation discussed under the Proposed Project apply to the 130-Unit Alternative. With implementation of mitigation measures described in Section 3.3, *Biological Resources* and **Mitigation Measure BIO-23**, as well as through implementation of the proposed 2006 Restoration Plan, there would be a *less-than-significant* cumulative impacts on wildlife migration corridors.

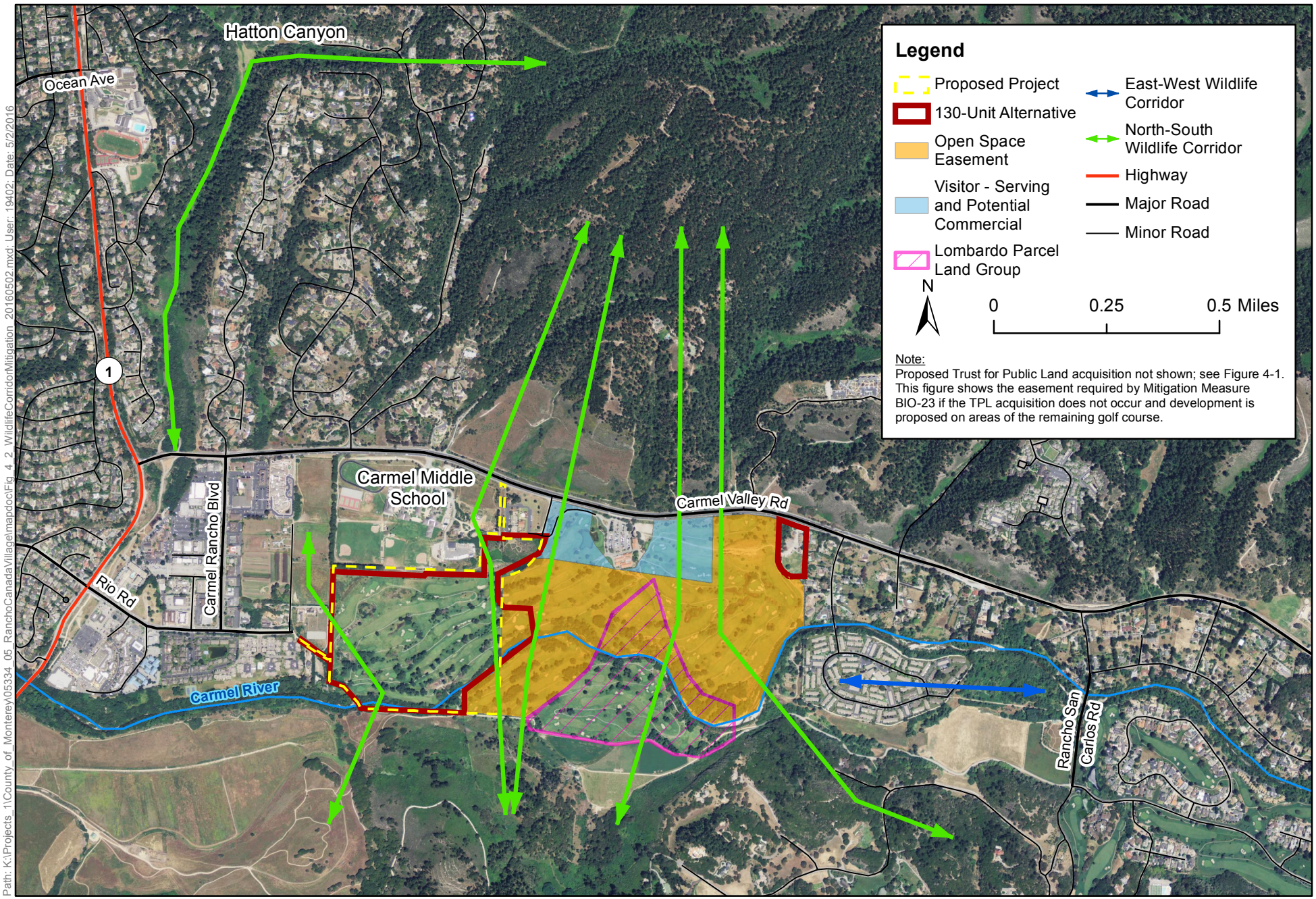
Mitigation Measure BIO-23: Monterey County to Require Dedication of an Open Space Easement on a Portion of the Rancho Cañada Golf Course for a Wildlife Movement Corridor as a Condition of Approval of Future Development on the Remaining Portion of the Golf Course

If any future development is proposed on the remaining golf course (outside of the area of the Proposed Project or the 130 unit Alternative), Monterey County shall require, as a condition of approval, dedication of an irrevocable open space easement over the specified portion of the land at the Rancho Cañada Golf Course between the Carmel River and Carmel Valley Road as described below in order to maintain a wildlife movement corridor from the Carmel River across the golf course and northward across Carmel Valley Road.

The goal of this mitigation is to preserve a wildlife movement corridor east of the Rancho Cañada clubhouse and wildlife movement from the habitat preserve along the north side of the Carmel River to link up with the movement corridor east of the clubhouse.

A preliminary outline of the easement area is shown in **Figure 4-2**. The area of the easement will include, at a minimum, a portion of the golf course north of the Carmel River that is east of the habitat preserve, south of the Rancho Cañada clubhouse, and east of the Rancho Cañada clubhouse. The easement will exclude the existing footprint of the Rancho Cañada clubhouse, access road, and ancillary facilities. The width of the wildlife corridor to the east of the clubhouse shall be a minimum of 1,000 feet wide from Carmel Valley Road to a point parallel to the southernmost edge of the clubhouse and then shall include a connections to areas south to the Carmel River as shown in **Figure 4-2**.

The open space easement may allow for continued golf course use and periodic alteration of the golf course for golf course purposes (including excavation, grading, and realignment of holes



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Source: Imagery, NAIP 2012, Roads; Monterey County 2014; Rivers, ESRI 2014.

Figure 4-2
Wildlife Corridor Mitigation

and greens). The open space easement will not allow development of the land for residential, visitor-serving, commercial, or institutional uses.

The easement area and easement language shall be approved by the County prior to issuance of any building permit for any future development on other parts of the golf course. The easement shall be obtained and recorded prior to the start of construction of any future development on other parts of the golf course. The easement will either be held by the County or by a third-party qualified to hold open space easements approved by the County the landowner. The easement shall be in perpetuity and will be irrevocable without exception.

Aesthetics

Cumulative Impact AES-C1: Cumulative Degradation of the Existing Visual Character of the Region (less than considerable with mitigation)

Proposed Project

Carmel Valley, while having several built-up areas such as the mouth of the Valley and the Village, is dominated by a rural character. As discussed in Section 3.4, *Aesthetics*, the Proposed Project effect on the rural character, in isolation, would be *less than significant*.

Within the CVMP area, buildout allowed by the 2013 CVMP, as discussed above, could include residential development (on existing legal lots only), office, commercial, recreational, and associated infrastructure development. Some of this growth, such as potential visitor-serving units or public quasi-public development on other parts of the Rancho Cañada Golf Club could change the visual character within the immediate vicinity of the new project area; however, with the limitations and policies in the 2013 CVMP itself, such buildout is unlikely to change the overall character of the area, in particular taking into account the limited buildout allowed by the CVMP policies. As noted above, with approval of the Proposed Project, there would be no allowable subdivision on the Val Verde project, so additional residential subdivisions would not occur adjacent to the project area.

Regional growth (outside the CVMP area) would continue to result in a cumulative aesthetic effect by converting undeveloped land into developed and occupied areas. Cumulative development entails grading/landform alteration, the erection of structures, and the installation of roadways and other infrastructure that has altered and would continue to permanently alter the region's existing visual character.

While Section 3.4, *Aesthetics* includes mitigation to reduce project-level impacts on visual resources to less-than-significant levels, the overall development in the region could result in a significant cumulative impact. However, because the Project would be consistent with the 2013 CVMP, and the 2010 Monterey County General Plan and public scenic views of the development would be limited, the Proposed Project would have a *less-than-considerable* contribution to this cumulative impact.

130-Unit Alternative

With the 130-Unit Alternative, site buildout would include 130 units of residential development.

There would be sufficient residential units remaining in the subdivision unit quota that would allow for 31 units on the Val Verde property. There would also be the potential for visitor-serving unit development on the west side of the Rancho Cañada clubhouse.

Similar to the Proposed Project, the residential element of the 130-Unit Alternative would be consistent with the 2013 CVMP, and 2010 General Plan and views of the residential development would be limited. The 130-Unit Alternative is consistent with the findings for the Proposed Project on cumulative impacts with respect to visual aesthetics. While Section 3.4, *Aesthetics*, includes mitigation for the 130-Unit Alternative to reduce project-level impacts on visual resources to less-than-significant levels, the overall development in the region could still result in a significant cumulative impact. However, the residential element of the 130-Unit Alternative would have a *less-than-considerable* contribution to this impact with mitigation.

Land Use, Population and Housing

Cumulative Impact LU-C1: Cumulative Local Land Use Impacts (considerable and unavoidable with mitigation for the Proposed Project and the 130-Unit Alternative)

Proposed Project

As described in Section 3.5, *Land Use*, the 2013 CVMP and 2010 General Plan land use designation for the site is Public/Quasi-Public (P/QP), which does not allow for residential subdivision. However, 2013 CVMP Policy CV-1.27 allows for residential use in the Special Treatment Area. Although an amendment to the 2013 CVMP and 2010 General Plan land use diagram and rezoning to a residential zoning district under Title 21 would be required this is not considered a fundamental inconsistency with existing land use plans due to the provision in 2013 CVMP Policy CV-1.27.

As noted in Chapter 2, Project Description, the Proposed Project would be in conflict with Policy CV - 1.6 that establishes the residential unit cap. In order to facilitate the project and to still provide the 24 units reserved in Policy CV-1.6 for the Delfino property, the residential unit cap from residential subdivision would need to be raised to 305 units (281 units for the Proposed Project and 24 units for the Delfino property). The residential unit cap was adopted in part to reduce environmental impacts such as those related to water supply and traffic, as well as open space preservation. While the Proposed Project would not result in significant impacts to water supply or open space preservation (the project would actually increase open space open to the public), the project would result in certain significant and unavoidable traffic impacts inside and outside Carmel Valley. Thus, the project's inconsistency with CVMP Policy CV-1.6 would result in significant secondary environmental impacts and this is considered a significant land use impact. Although the CVMP could be amended to rectify the policy inconsistency, as discussed in Chapter 3.7, *Transportation and Traffic*, there is no feasible mitigation to eliminate all of the significant traffic impacts and this impact is therefore significant and unavoidable with mitigation.

Apart from this inconsistency with CVMP Policy CV-1.6, the Project is considered otherwise consistent with other applicable 2013 CVMP and 2010 General Plan policies.

The Project would not divide a community and can be integrated into Carmel Valley without resulting in land use changes overall that would imperil meeting the goals of the 2013 CVMP, other than the traffic issues noted above.

It is possible that other development could be approved in the future that may potentially conflict with 2013 CVMP and 2010 General Plan land use policies and designations by proposing incompatible land uses. This could result in cumulative significant land use impacts to occur. The Proposed Project would contribute to cumulative land use related impacts due to the policy

inconsistency issues in regards to buildout and traffic and therefore would have a *significant* contribution cumulative land use impacts.

130-Unit Alternative

The 130-Unit Alternative would be consistent with CVMP Policy CV-1.6 regarding CVMP buildout. The 130-Unit Alternative would require a change in the land use designations and zoning for the residential component but would be consistent with the 2013 CVMP Policy CV-1.27 in regards to land use designations allowing for residential use in the Special Treatment Area. However, the 130-Unit Alternative would not be consistent with the requirement in Policy CV-1.27 requiring a minimum of 50% affordable/workforce housing at the Special Treatment Area. As discussed in Chapter 3.5, *Land Use*, the specific impacts of this inconsistency with the affordable/workforce housing requirement are difficult to know without speculation, but the lesser amount of affordable housing is considered likely to result in longer commutes for workers and thus contribute to cumulatively significant traffic impacts, some of which cannot be mitigated. The 130-Unit Alternative would thus contribute to cumulative land use related impacts due to this policy inconsistency and therefore would have a *significant* contribution to cumulative impacts on land use.

Hazards and Hazardous Materials

Cumulative Impact HAZ-C1: Cumulative Significant Hazards to the Public or Environment (less than considerable with mitigation)

Proposed Project

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

The construction of the proposed residential development would require the use and temporary storage of hazardous materials. Hazardous material treatment, transport, and storage are highly regulated by city, county, State, and federal regulations. While the Proposed Project would not contribute directly to significant hazards, the potential exists for accidental release from vehicle accidents during operations, construction-related spills, and during ground disturbing activities. Cumulative development of the area would result in increased construction, traffic, and accident potential. However, as with the transport and storage of hazardous materials, the treatment of accidental spills and releases are highly regulated, and procedures and protocol exist to mitigate potential impacts to less-than-significant levels. In addition, implementation of **Mitigation Measure HAZ-1, HAZ-2, HAZ-3, HAZ-4,** and **HAZ-5** would further reduce the potential to expose people or environment to hazardous materials. By adhering to these policies and implementation of these project-level mitigation measures, the Project would have a *less-than-considerable* contribution to a cumulative impact regarding the exposure of the public to hazardous materials.

130-Unit Alternative

As stated above, cumulative impact related to hazards and hazardous materials could occur where development places structures and residents in proximity to hazardous substances and hazards.

Construction of the 130-Unit Alternative, including Lot 130, would require the use of hazardous materials such as petroleum, paint, solvents, and diesel during the construction phase. However, as stated above, hazardous material treatment, transport, and storage are highly regulated. The 130-Unit Alternative would be required to comply with all regulations; however, there is potential for an accidental release to occur. Compliance with regulations and **Mitigation Measures HAZ-1** thru **HAZ-5** described in Section, 3.6, *Hazards and Hazardous Materials*, would reduce potential impacts to less-than-significant levels. Therefore, through compliance with the polices and mitigation described in Section 3.6, the 130-Unit Alternative would have a *less-than-considerable* contribution to a cumulative impact.

Transportation and Circulation

Existing and Cumulative Traffic Conditions

As discussed in Section 3.7, *Transportation and Traffic*, traffic conditions were analyzed for the weekday AM and PM peak hours of traffic because it is during these periods that the most congested traffic conditions occur on an average day. Carmel Valley Road was analyzed based on both peak-hour and average daily traffic (ADT).

This cumulative analysis considers the following scenarios: existing, cumulative, cumulative with Proposed Project, and cumulative with the 130-Unit Alternative.

- *Existing Conditions*. Reflect 2014 traffic counts and the existing transportation network.
- *Cumulative Conditions.* Cumulative conditions consist of existing traffic volumes plus the trips associated with approved, pending, and planned developments.
- *Cumulative Plus Proposed Conditions.* Represent future traffic conditions reflective of buildout of land uses in the area, including the Proposed Project.
- *Cumulative Plus 130-Unit Alternative Conditions.* Represent cumulative traffic conditions of buildout land uses in the area, including the 130-Unit Alternative.

Cumulative Roadway Network

Monterey County implements select roadway improvements in Carmel Valley through the Carmel Valley Transportation Improvement Program (CVTIP), which was described in Section 3.7, *Transportation and Traffic*.

The Transportation Agency for Monterey County (TAMC) collects development impact fees to help fund transportation projects of regional significance. TAMC's 2014 Regional Transportation Improvement Plan program includes the following improvements.

- Add a second northbound through lane to SR 1 between Rio Road and Carmel Valley Road.
- Add capacity to the Rio Road/SR 1 intersection as follows.
  - Convert the northbound right turn lane to a shared through/right turn lane.
  - Add a second westbound right turn lane.
  - Widen the southbound approach to provide a right turn lane, through lane, and dual left turn lanes.

- Convert the Carmel Valley Road/SR 1 intersection's northbound right turn lane to a shared through/right turn lane.

The TAMC impact fees also fund improvements to SR 68, including the SR 68/Laureles Grade Road intersection. This intersection would be modified to convert the eastbound right turn lane to a shared through/right lane and an associated receiving lane for eastbound traffic.

These improvements were assumed to be operational under cumulative conditions. No other roadway network changes affecting study location operations were assumed to be in place under cumulative conditions.

Cumulative Volume Forecast

Cumulative traffic volume forecasts were developed using the 2014 AMBAG RTDM and the 2007 CVTIP traffic study. The 2007 CVTIP traffic study forecasts travel based on a detailed review of potential land use intensities within Carmel Valley, while the RTDM is by nature focused more on regional travel patterns. The local traffic cumulative forecast for Carmel Valley has not been updated since the 2007 CVTIP study (the EIR for the 2010 General Plan was a regional analysis). The CVTIP traffic study forecasted substantially more growth along the Carmel Valley Road corridor than the RTDM, which shows future traffic levels within 5 percent of year 2010 levels.[1] These increases flow to SR 1, again resulting in significantly higher volumes than those projected in the RTDM.

The 2007 CVTIP traffic study forecasts were used in this analysis over the RTDM forecasts because of the local nature of those forecasting efforts. Although the 1986 CVMP is no longer in effect and does not apply to the Proposed Project, the 2007 cumulative forecast based on the prior CVMP provides a reasonable analysis base for use in this EIR.

The 1986 CVMP had a quota of 1,310 residential units after 1986. Specifically, the 2007 CVTIP traffic study forecast included the following growth.

- Unbuilt residential units for previously approved subdivisions.
- Unbuilt residential units for previously approved single-family units and adjunct units.
- Future potential residential units in new subdivisions: At the time of the 2007 CVTIP traffic study, and accounting for prior approvals and issued building permits since 1986, the remaining potential for residential units was identified as 533 of the quota of 1,310 units (of which 281 would have been consumed by the Proposed Project.
- Future units on existing buildable residential legal lots. These units would also have counted against the 1,310-unit quota, so the amount of allowable units would depend on how many new units were approved in new subdivisions.
- Up to 285 visitor-serving units and commercial growth related to commercially designated lands.

[1] A key reason for the difference in 2030 forecasts is that the 2007 CVTIP traffic study assumed full buildout of allowable land uses in the CVMP by 2030, whereas the 2014 RTDM assumes a more modest level of growth by 2030. It is possible with market conditions and issues surrounding water supply in particular that full buildout of the CVMP will not occur by 2030. However, by assuming full buildout by 2030, the cumulative analysis in this EIR is erring on the conservative side. If full buildout occurs later (like 2040 or 2050), the cumulative traffic analysis would reflect that later year.

Important to note is that the 1986 CVMP residential quota system applied to units both in new subdivisions as well as existing legal lots. The 2013 CVMP, by contrast, only applies its residential unit quota to new subdivisions and second units on legal lots and does not apply to the first residential unit on an existing legal lot. The 2013 CVMP includes a different quota than the 1986 CVMP and approval of the Proposed Project or the 130-Unit Alternative would count against the new quota for how much other residential development could occur.

The allowable new residential units assumed in the 2007 CVTIP traffic study forecast compared to what could occur at present under the 2013 CVMP is as follows.

- Proposed Project: The 2007 CVTIP study forecast included the Proposed Project plus up to 252 units for other subdivisions and units on existing legal lots. If the Proposed Project is approved, with the proposed CVMP amendment described in Chapter 2, no new units for other subdivisions (other than the Delfino property) would be allowed. The estimated number of remaining existing legal lots as of 2008 was 216.5. The combined potential new units for 2008 and after (not counting units for projects approved prior to 2008[2]) with the Proposed Project would be 521.5 units (281 units for the Proposed Project, 24 units on the Delfino property plus 216.5 units on existing legal lots). The 2007 CVTIP study forecast estimated post-2008 units for 2030 as 533 units (excluding units for projects approved prior to 2008), so the CVTIP forecast is slightly higher to that which would occur with the Proposed Project. The 2007 CVTIP forecast assumptions for 2030 for visitor-serving units are the same as under the 2013 CVMP and likely highly similar in terms of commercial growth.
- 130-Unit Alternative: If the 130-Unit Alternative is approved, the potential would remain for 60 new units in new subdivisions. Using the assumptions noted above, the combined potential new units since 2008 (not counting units for projects approved prior to 2008) with the 130-Unit Alternative would be 406.5 units (130 units for the Proposed Project, plus 60 units for other subdivisions, plus 216.5 units on legal lots). The 2007 CVTIP study forecast estimated post-2008 units for 2030 as 533 units (not counting units in projects approved prior to 2008), so it overestimates residential traffic by 127 units compared to that which would occur with the 130-Unit Alternative.

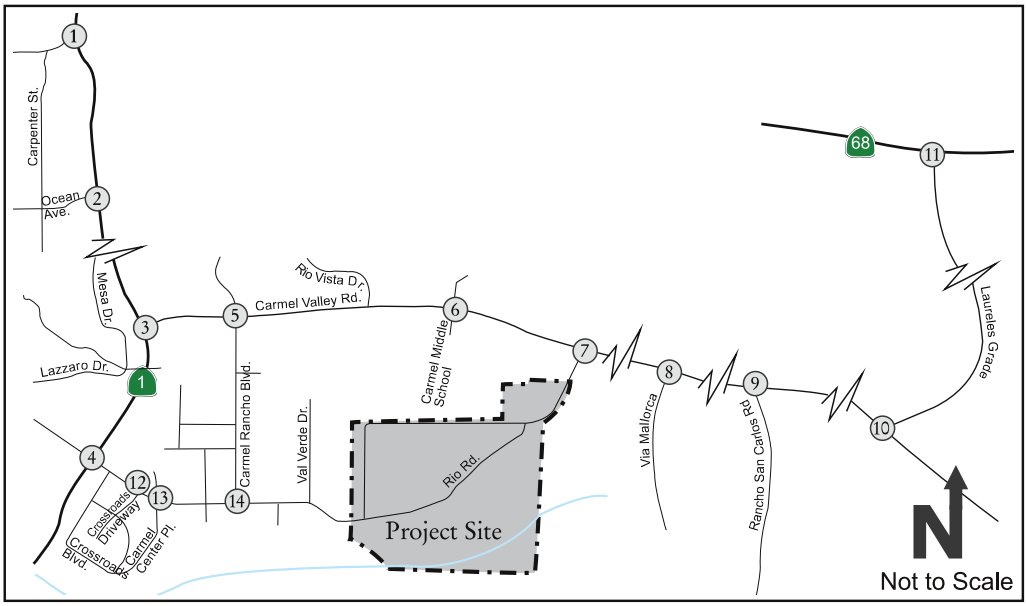
Because the cumulative traffic analysis uses the 2030 forecast from the 2007 CVTIP study, it would include a similar estimate of cumulative traffic levels for the Proposed Project and would slightly overestimate cumulative traffic levels compared to what may actually occur now with the 130-Unit Alternative. Because the 2007 CVTIP traffic study forecast was based on a localized analysis of traffic potential that is more geographically precise than a regional model forecast and is reasonably representative of future conditions, it is considered appropriate for use in this Recirculated Draft EIR.

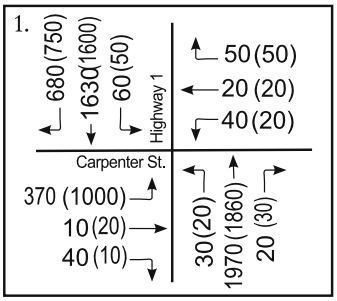
Cumulative Plus Project and Cumulative Plus 130-Unit Alternative volumes are shown on **Figures 4-3** and **4-4**, respectively.

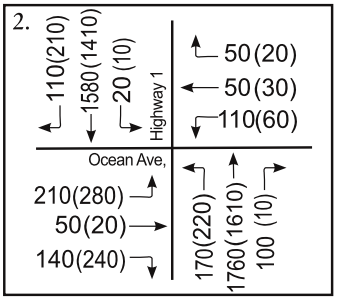
Cumulative Traffic Impacts

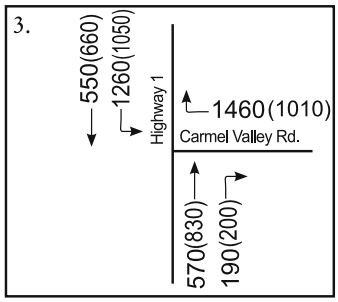
Table 4-2 summarizes the existing, cumulative and cumulative plus Proposed Project and 130-Unit Alternative intersection traffic conditions.

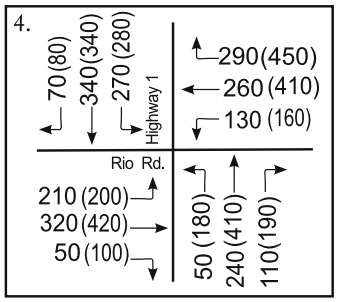
[2] Units in previously approved subdivisions prior to 2008 were accounted for in the 2007 CVMP traffic study.

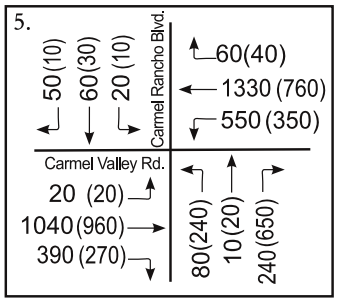


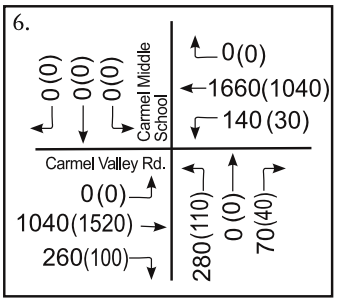


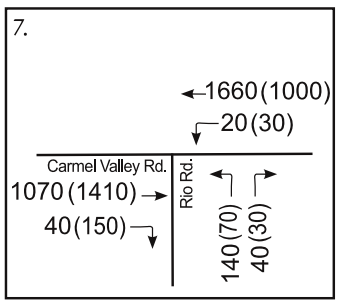


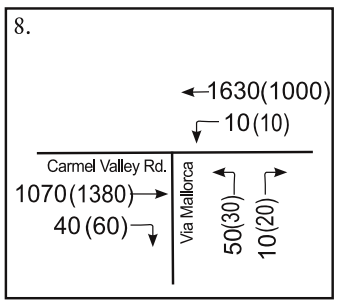


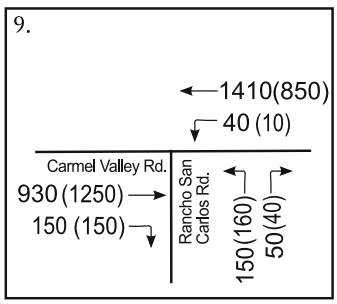


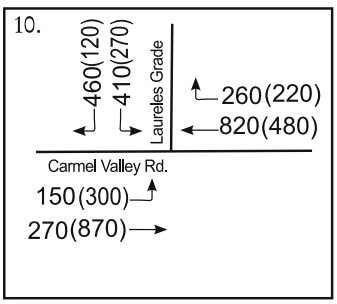


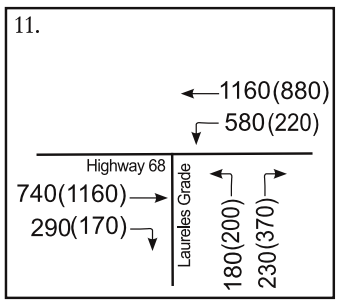


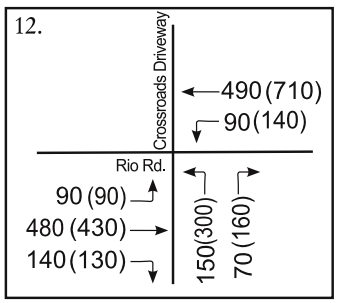


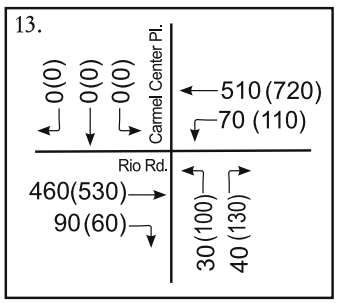


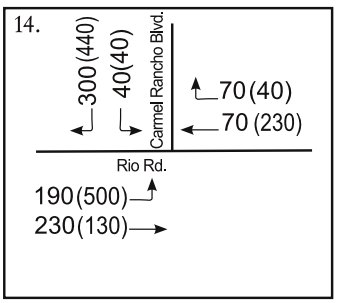












Legend:

xx(yy) - AM(PM) Peak Hour Traffic Volumes

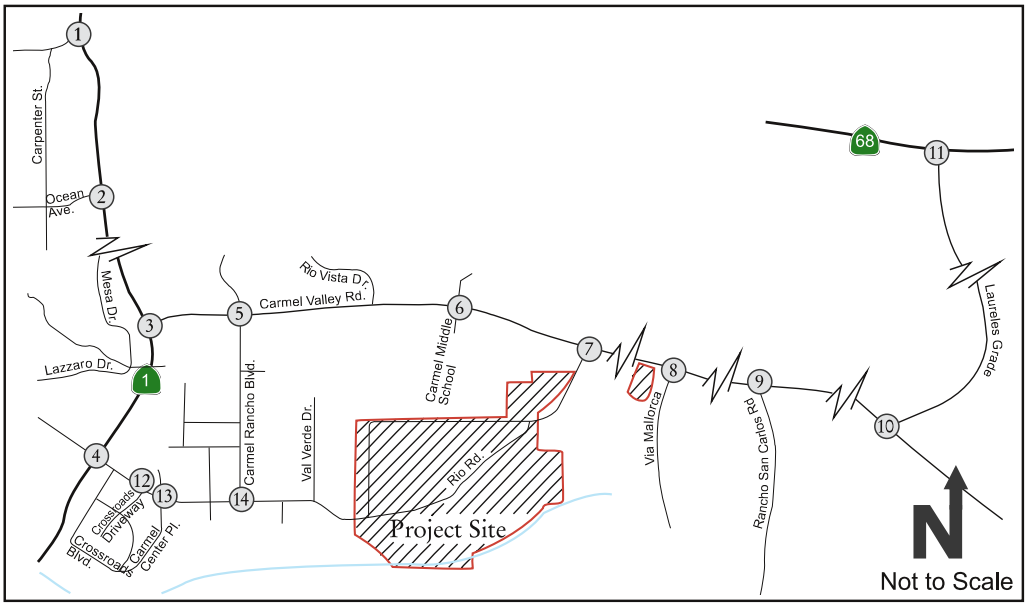
- Project Site

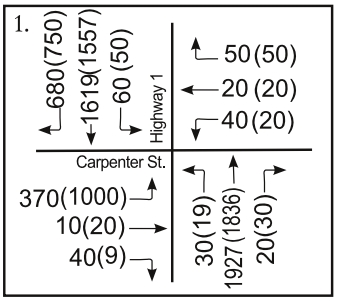
17 - Study Intersection

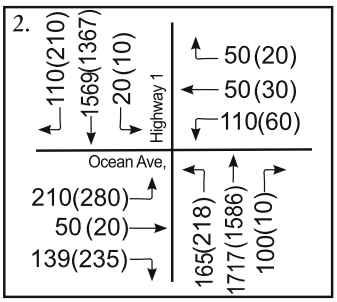
Source: Central Coast Transportation Consulting 2016.

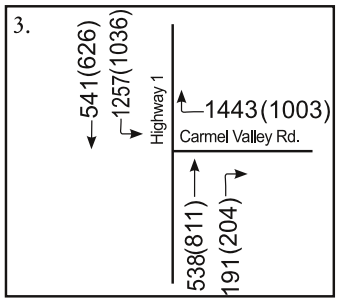
Graphics... 05334.05 RDEIR (4-26-2016)

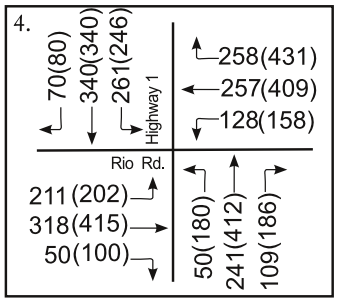
Figure 4-3
Cumulative Plus Proposed Project Volumes

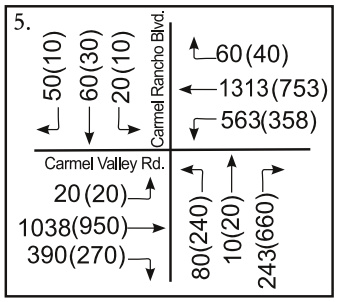


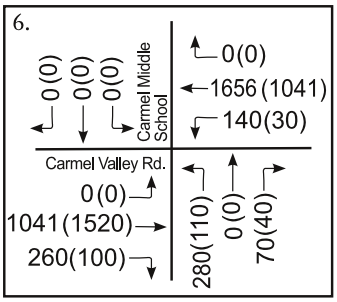


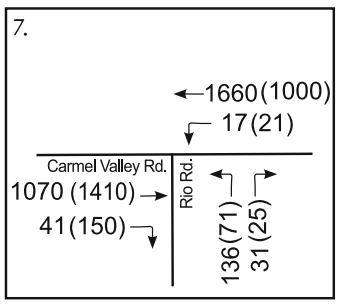


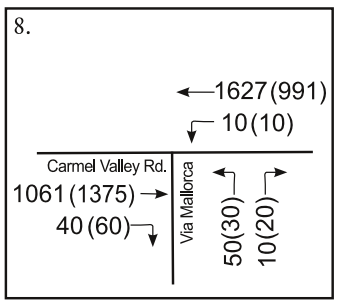


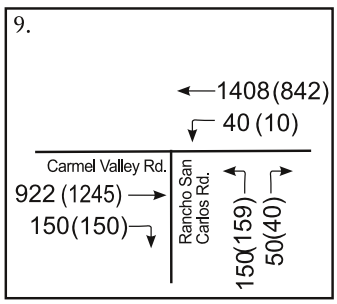


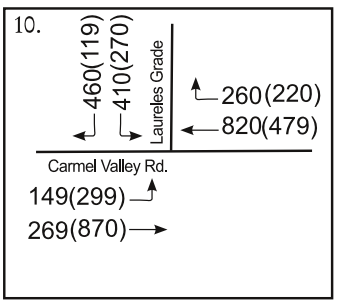


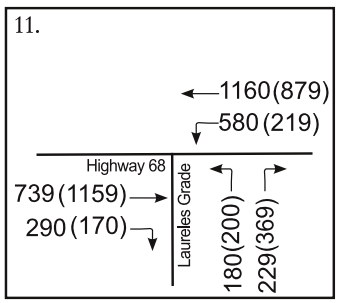


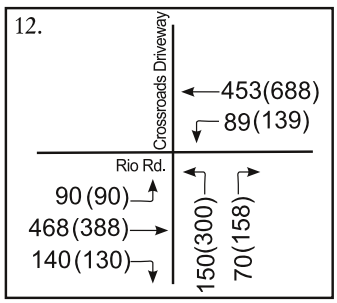


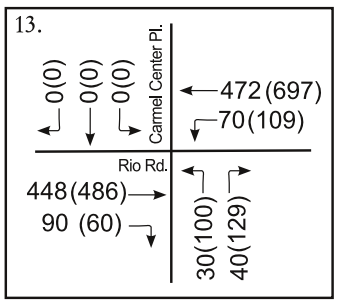


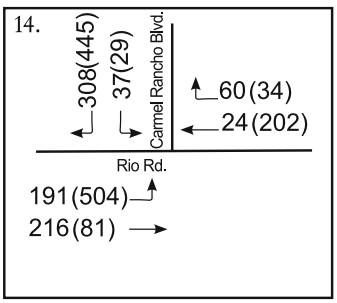












Legend:

xx(yy) - AM(PM) Peak Hour Traffic Volumes

17 - Study Intersection

- 130-Unit Alternative Project Site

Source: Central Coast Transportation Consulting 2016.

Graphics ...05334.05 RDEIR (4-26-2016)

Figure 4-4
Cumulative Plus 130-Unit Alternative

Table 4-2. Cumulative Intersection Levels of Service

Segment	Peak Hour	Existing Delay [1] (sec/veh)	Existing LOS [2]	Cumulative Delay [1] (sec/veh)	Cumulative LOS [2]	Cumulative Plus Project Delay [1] (sec/veh)	Cumulative Plus Project LOS [2]	Cumulative Plus 130-Unit Alternative Delay [1] (sec/veh)	Cumulative Plus 130-Unit Alternative LOS [2]
1. SR 1/ Carpenter Street	AM	19.4	B	30.2	C	**35.4**	**D**	32.9	C
	PM	**39.9**	**D**	**88.4**	**F**	**100.4**	**F**	**92.3**	**F**
2. SR 1/Ocean Avenue	AM	27.7	C	**44.3**	**D**	**48.7**	**D**	**46.0**	**D**
	PM	20.7	C	**40.4**	**D**	**48.9**	**D**	**44.7**	**D**
3. SR 1/Carmel Valley Road	AM	11.2	B	21.2	C	24.4	C	22.6	C
	PM	21.6	C	18.0	B	18.9	B	18.6	B
4. SR 1/Rio Road	AM	25.1	C	25.0	C	25.4	C	25.1	C
	PM	**41.4**	**D**	**65.5**	**E**	**68.6**	**E**	**65.9**	**E**
5. Carmel Valley Road/Carmel Rancho Blvd	AM	15.7	B	24.1	C	24.2	C	24.5	C
	PM	21.1	C	**40.8**	**D**	**41.5**	**D**	**43.0**	**D**
6. Carmel Valley Road/Carmel Middle School	AM	16.4	B	17.1	B	17.7	B	17.7	B
	PM	7.6	A	9.0	A	9.4	A	9.4	A
7. Carmel Valley Road/Rio Road	AM	0.5 (33.8)	A (C)	9.5	A	10.4	B	11.0	B
	PM	1.5 (65.8)	A (F)	7.1	A	8.6	A	9.2	A
8. Carmel Valley Road/Via Mallorca	AM	3.6	A	5.8	A	5.8	A	5.8	A
	PM	5.7	A	6.1	A	6.0	A	6.1	A
9. Carmel Valley Road/ Rancho San Carlos Road	AM	9.0	A	**49.1**	**D**	**49.1**	**D**	**48.6**	**D**
	PM	12.1	B	26.1	C	26.7	C	26.0	C
10. Carmel Valley Road/Laureles Grade	AM	**34.2 (122.0)**	**D (F)**	**>200 (>200)**	**F (F)**	**>200 (>200)**	**F (F)**	**>200 (>200)**	**F (F)**
	PM	**59.4 (>200)**	**F (F)**	**>200 (>200)**	**F (F)**	**>200 (>200)**	**F (F)**	**>200 (>200)**	**F (F)**
11. Laureles Grade/SR 68	AM	16.4	B	29.8	C	29.8	C	29.8	C
	PM	21.3	C	21.0	C	21.0	C	20.9	C
12. Crossroads Driveway/Rio Road	AM	13.7	B	22.6	C	22.0	C	22.4	C
	PM	15.3	B	14.6	B	14.5	B	14.6	B
13. Carmel Center Place/Rio Road	AM	5.3	A	5.8	A	5.6	A	5.8	A
	PM	8.5	A	8.3	A	8.1	A	8.3	A
14. Carmel Rancho Blvd/Rio Road	AM	10.1 (18.6)	B (C)	8.2 (19.5)	A (C)	9.4 (23.4)	A (C)	8.2 (19.4)	A (C)
	PM	12.6 (53.9)	B (F)	**>200 (>200)**	**F (F)**	**>200 (>200)**	**F (F)**	**>200 (>200)**	**F (F)**

[1] Highway Capacity Manual 2010 average control delay in seconds per vehicle.

[2] For side-street stop-controlled intersections, the worst approach's delay is reported in parenthesis next to the overall intersection delay.

[3] Unacceptable operations are shown in **bold text**

Cumulative Impact TR-C1: LOS Decrease at Signalized Intersections (significant and unavoidable with mitigation)

Proposed Project

The results of the level of service analysis under cumulative conditions for the Proposed Project are summarized in **Table 4-2**. As shown, the results indicate that level of service (LOS) would be deficient at five signalized intersections.

SR 1 Intersections

The SR 1/Carpenter Street intersection operates at LOS D during the existing PM peak hour and LOS B during the AM peak hour. Under cumulative plus Proposed Project conditions, this intersection would operate at LOS D during the AM peak hour and LOS F during the PM peak hour. The morning peak-hour delay would increase by 16 seconds, and the evening peak-hour delay would increase by 60.5 seconds. The Proposed Project would add traffic to the intersection, which is deficient during the evening peak hour, and degrade the operation of the intersection during the morning peak hour.

The SR 1/Ocean Avenue intersection operates at LOS C during the AM and PM peak hours. Under cumulative conditions plus Proposed Project conditions, the AM and PM peak-hour LOS would be D.

Improvement of the LOS at the SR 1/Carpenter Street and SR 1/Ocean Avenue intersections would require widening of SR 1 to six lanes to provide acceptable operations. This mitigation measure is considered infeasible because of the long history of opposition to the widening of SR 1 through Carmel-by-the-Sea, no State, regional or local planning for such improvements, and a general community lack of acceptance of any such improvement. As such, the Project would have a *significant and unavoidable* contribution to cumulative impacts on these two intersections.

The SR 1/Rio Road intersection operates at LOS D under the existing PM peak hour. Under the cumulative plus Proposed Project conditions, the intersection would operate at LOS E. Because the Proposed Project would contribute to a deficient intersection, this would be a significant, considerable contribution to cumulative impacts. However, with the implementation of **Mitigation Measure TR-2** (refer to Chapter 3.7), the Proposed Project would contribute a fair-share regional impact fee that would fund improvements to this intersection and thus would have a *less-than-considerable* contribution to a cumulative impact at this intersection.

Monterey County Road Intersections

With two exceptions, all Monterey County signalized intersections would operate with acceptable LOS conditions.

- Under existing conditions, the signalized Carmel Valley Road/Carmel Rancho Boulevard intersection operates at LOS B during the AM peak hour and LOS C during the PM peak hour. This intersection would operate at LOS D during the PM peak hour cumulative plus Project conditions. The addition of cumulative traffic changes the LOS from the existing condition. Adding a second northbound right turn lane would provide LOS C operations but is not included in the CVTIP.
- Under existing conditions, the signalized Carmel Valley Road/Rancho San Carlos Road intersection operates at LOS A during the AM peak hour. This intersection would operate at LOS D during the AM peak hour under cumulative plus Proposed Project conditions. Adding a second westbound through lane would improve operations to LOS B. The transition from a two-lane

section to a four-lane section occurs approximately 1/3 of a mile west of Rancho San Carlos Road. Extending the new westbound lane to the current merge point west of the intersection would be necessary but this improvement is not included in the CVTIP.

As shown in **Table 4-2**, these two intersections would have deficient levels with or without the Project; thus the Project can only be required to contribute a fair share to complete improvements and cannot be required to solely fund such improvements. Since the CVTIP does not include improvements that would reduce the Project impacts to less than significant, this would be *significant and unavoidable* contribution to a cumulative impact.

130-Unit Alternative

The 130-Unit Alternative would have similar impacts on SR 1 intersections as the Proposed Project. The 130-Unit Alternative would have a *significant and unavoidable* impact on SR 1/Carpenter Street and SR 1/Ocean Avenue. Similarly to the Proposed Project, the 130-Unit Alternative would implement **Mitigation Measure TR-2** (refer to Section 3.7, *Transportation and Traffic*) to minimize its share of the impact on the SR 1/Rio Road intersection. Therefore, the 130-Unit Alternative would have a *less-than-considerable* contribution to a cumulative impact.

The 130-Unit Alternative would have a similar cumulative contribution to the Carmel Valley Road/Rancho San Carlos and Carmel Valley Road/Carmel Rancho Blvd intersections. Similarly to the Proposed Project contribution, the 130-Unit Alternative would have a *significant and unavoidable* contribution to a cumulative impact.

Cumulative Impact TR-C2: LOS Decrease at Unsignalized Intersections (considerable and unavoidable with mitigation)

Proposed Project

Under cumulative conditions with the Project, as shown in **Table 4-2**, all unsignalized intersections other than two intersections discussed below would have acceptable levels of service.

- Carmel Rancho Blvd/Rio Road Intersection. The unsignalized intersection at Carmel Rancho Blvd and Rio Road would operate at an unacceptable LOS F during the PM peak hour and would meet the peak hour signal warrant under cumulative conditions with the Proposed Project. The side-street-stop controlled intersection would continue to operate at its existing LOS under the cumulative plus Proposed Project scenario. Improvements to the operation of this intersection would require installation of a single lane roundabout, which would result in LOS A. The signalization of this intersection would improve operations to LOS A. Installation of this improvement would require coordination with other signals on Rio Road. Because under cumulative conditions without the Proposed Project the intersection would continue to operate at LOS F, the Project Applicant is only responsible for the Proposed Project's fair-share contribution. Currently, the CVTIP does not include improvements to the operation at this intersection. Therefore, the Proposed Project would have a *considerable and unavoidable* contribution to a significant cumulative impact.
- Laureles Grade/Carmel Valley Road Intersection. The unsignalized intersection at Laureles Grade and Carmel Valley Road currently operates at an unacceptable LOS F and would continue to operate at an unacceptable LOS F under cumulative conditions with the Proposed Project. This intersection meets the peak-hour volume signal warrant under cumulative conditions. As such, the implementation of the Proposed Project would result in a considerable cumulative

contribution at this intersection. Implementation of project-level **Mitigation Measure TR-1** (previously identified in Section 3.7, *Transportation and Traffic*) would include a fair-share CVTIP impact fee payment that would reduce this contribution to a *less-than-considerable* level because the CVTIP includes a grade separation at this intersection that would improve operations to an acceptable level.

130-Unit Alternative

The 130-Unit Alternative would result in similar contributions to cumulative impacts on the intersections at Carmel Rancho Blvd/Rio Road and Laureles Grade/Carmel Valley Road. The 130-Unit Alternative would have a *considerable and unavoidable* contribution to a significant cumulative impact at Carmel Rancho Blvd/Rio Road. Similar to the Proposed Project, the 130-Unit Alternative would implement Project impact **Mitigation Measure TR-1**, which would ensure the 130-Unit Alternative reduces its fair share of the impact to the Laureles Grade/Carmel Valley Road intersection to a *less-than-considerable* level.

Cumulative Impact TR-C3: Peak Hour LOS Decrease for Segments of SR 1 and Carmel Valley Road (considerable and unavoidable with mitigation)

Table 4-3 shows the existing, cumulative, cumulative plus Proposed Project and 130-Unit Alternative segment analysis along SR 1 and Carmel Valley Road.

Proposed Project

SR 1 Segments

As shown in **Table 4-3**, the Proposed Project would contribute traffic to three segments of SR 1 that would have deficient operations with or without the Project.

- SR 1 between Carpenter Street and Ocean. The southbound direction operates at LOS D during the AM peak hour and the northbound direction operates at LOS D during the PM peak hours for all scenarios. The Project add traffic to this deficient segment, which is a significant impact.
- The SR 1 segment between Ocean Avenue to Carmel Valley Road. The northbound direction operates at LOS F during the AM peak hour under all scenarios. The Project add traffic to this deficient segment, which is a significant impact.
- The SR 1 segment from Carmel Valley Road to Rio Road. The northbound direction operates at LOS D during the AM peak hours and both directions operate at LOS E during the PM peak hour under all scenarios. The Project add traffic to this deficient segment, which is a significant impact.

Improvements to these SR 1 segments, discussed above, would require widening SR 1. This mitigation measure is considered infeasible because of a long history of opposition to the widening of SR1 through Carmel-by-the-Sea, no State, regional or local planning for such improvements, and a general community lack of acceptance of any such improvement. Therefore, the Proposed Project would have a *considerable and unavoidable* contribution to a significant cumulative impact.

1 **Table 4-3. Cumulative Plus Proposed Project and 130-Unit Alternative Roadway Segment Analysis**

Segment	LOS Standard	Existing LOS				Cumulative LOS				Cumulative Plus Project LOS				Cumulative Plus 130-Unit Alternative LOS			
		AM		PM		AM		PM		AM		PM		AM		PM	
		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
SR 1–Carpenter St to Ocean Ave	C	C	**D**	**D**	C	C	**D**	**D**	C	C	**D**	**D**	C	C	**D**	**D**	C
SR 1–Ocean Ave to Carmel Valley Road	C	C	C	C	C	**F**	C	C	C	**F**	C	C	C	**F**	C	C	C
SR 1–Carmel Valley Road to Rio	C	**F**	C	**F**	**E**	**D**	C	**E**	**E**	**D**	C	**E**	**E**	**D**	C	**E**	**E**
SR 1–Rio to Ribera	C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
1. CVR–Valle Vista to Holman	C	A	C	B	B	C	**D**	**D**	C	C	**D**	**D**	C	C	**D**	**D**	C
2. CVR–Holman to Esquiline	C	A	C	C	B	C	**D**	**D**	C	C	**D**	**D**	C	C	**D**	**D**	C
3. CVR–Esquiline to Ford	D	B	D	D	C	D	**E**	**E**	D	D	**E**	**E**	D	D	**E**	**E**	D
4. CVR–Ford to Laureles Grade	D	C	D	D	C	D	**E**	**E**	D	D	**E**	**E**	D	D	**E**	**E**	D
5. CVR–Laureles Grade to Robinson Canyon	D	C	D	D	C	C	**E**	**E**	D	C	**E**	**E**	D	C	**E**	**E**	D
6. CVR–Robinson Canyon to Shulte	D	C	D	**E**	D	D	**E**	**E**	D	D	**E**	**E**	D	D	**E**	**E**	D
7. CVR–Shulte to Rancho San Carlos	D	C	**E**	**E**	D	**E**	**E**	**E**	D	**E**	**E**	**E**	**E**	**E**	**E**	**E**	D
8. CVR–Rancho San Carlos to Rio	C	B	B	B	B	B	C	B	B	B	C	B	B	B	C	B	B
9. CVR–Rio to Carmel Rancho Blvd	C	A	B	B	B	B	C	C	B	B	C	C	B	B	C	C	B
10. CVR–Carmel Rancho Blvd to SR 1	C	B	B	B	B	B	C	B	B	B	C	B	B	B	C	B	B
11. Carmel Ranch Blvd-CVR to Rio	C	**D**	B	**D**	B	**D**	B	**D**	B	**D**	B	**D**	B	**D**	B	**D**	B
12. Rio-Val Verde to Carmel Rancho Blvd	C	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**	**D**
13. Rio-Carmel Rancho Blvd to SR 1	C	B	**D**	B	C	B	**D**	B	C	B	**D**	B	C	B	**D**	B	C

Source: Monterey County Department of Public Works 2010.

Notes:

Bold text indicates threshold has been exceeded.

See **Appendix E** for detailed segment analysis results.

2

Carmel Valley Road Segments

As shown in **Table 4-3**, future cumulative conditions with the Proposed Project would result in significant impacts along Carmel Valley Road Segments 1 through 7 compared to existing conditions. The Proposed Project would add traffic to deficient segments of Carmel Valley Road.

These segments of Carmel Valley Road would operate at deficient levels with or without the Project. Thus the Project can only be required to contribute a fair share to complete improvements and cannot be required to solely fund such improvements.

Mitigation Measure TR-2 (described in Section 3.7, *Transportation and Traffic*) would help with certain improvements to Carmel Valley Road through payment of the CVTIP traffic impact fee. As described in Section 3.7, the adopted CVTIP currently includes several improvements to Carmel Valley Road, including left-turn channelization, sight distance improvement, shoulder widening, bike lanes, grade separation at Laureles/Carmel Valley Road, a short passing lane in front of September Ranch (Segment 7), and a short passing lane opposite Garland Park (Segment 5). The two passing lanes in the CVTIP are short improvements that would not remedy the cumulative impacts for Segments 5 or 6 The CVTIP does not include any widening proposals or adequate passing lanes to address the identified cumulative traffic impacts.

Because the current CVTIP does not include improvements to Segments 1 through 7 that would reduce the cumulative impacts to less than significant, the Proposed Project would make a *considerable and unavoidable* contribution to the cumulative impacts.

130-Unit Alternative

SR 1 Segments

As shown in **Table 4-3**, the 130-Unit Alternative would have similar impacts as the Proposed Project on SR 1 segments. As discussed above, there is no feasible mitigation to improve the operation of these segments. Therefore, the 130-Unit Alternative would have a *considerable and unavoidable* contribution to a significant cumulative impact to these segments.

Carmel Valley Road Segments

The 130-Unit Alternative would have similar impacts as the Proposed Project on Carmel Valley Road segments. The 130-Unit Alternative would add trips to Segments 1 through 7 that would have significant cumulative LOS effects, as shown in **Table 4-3**. **Mitigation Measure TR-C2** would require payment of the CVTIP traffic impact fee. However, the CVTIP does not include improvements to Segments 1 through 7 that would reduce the cumulative impacts to less than significant, and thus the 130-Unit Alternative would have a *considerable and unavoidable* contribution to the cumulative impacts on these Carmel Valley Road segments.

Cumulative Impact TR-C4: Exceed Average Daily Traffic Thresholds on Segments of Carmel Valley Road (considerable and unavoidable with mitigation)

Table 4-4 shows the cumulative average daily traffic on Carmel Valley Road.

Table 4-4. Cumulative Roadway Segment Average Daily Traffic (ADT)

Segment	CVMP ADT Thresholds[1]	Existing ADT	Cumulative ADT	Cumulative Plus Project	Cumulative Plus 130-Unit Alternative
1. CVR–Valle Vista to Holman	8,487	3,200	**10,400**	**10,420**	**10,409**
2. CVR–Holman to Esquiline	6,835	3,700	**12,800**	**12,820**	**12,809**
3. CVR–Esquiline to Ford	9,065	8,200	**17,100**	**17,120**	**17,109**
4. CVR–Ford to Laureles Grade	11,600	10,600	**19,000**	**19,020**	**19,009**
5. CVR–Laureles Grade to Robinson Canyon	12,752	10,900	**18,300**	**18,361**	**18,318**
6. CVR–Robinson Canyon to Shulte	15,499	13,800	**20,300**	**20,361**	**20,409**
7. CVR–Shulte to Rancho San Carlos	16,340	15,600	**21,600**	**21,846**	**21,709**
8. CVR–Rancho San Carlos to Rio	48,487	18,700	23,000	23,266	23,118
9. CVR–Rio to Carmel Rancho Blvd	51,401	24,100	30,700	31,682	31,493
10. CVR–Carmel Rancho Blvd to SR 1	27,839	21,900	27,500	**28,482**	**28,138**
11. Carmel Ranch Blvd-CVR to Rio	33,495	9,877	10,100	11,082	10,893
12. Rio-Val Verde to Carmel Rancho Blvd	6,416	702	2,000	2,266	2,118
13. Rio-Carmel Rancho Blvd to SR 1	33,928	11,398	14,000	14,246	14,109

Source: Monterey County Department of Public Works 2010.

Notes:

Monterey County Department of Public Works 2013 ADT Counts. **Bold** text indicates threshold has been exceeded. See **Appendix E** for detailed segment analysis results.

Proposed Project

As shown in **Table 4-4**, the cumulative plus Proposed Project condition exceeds the ADT thresholds along all segments, with the exception of Segments 8, 9 and 11 through 13. The Proposed Project trips would increase the ADT on these segments. However, there would be a significant impact along Segments 1 through 7 under cumulative conditions with or without the Proposed Project. Thus the Project can only be required to contribute a fair share to complete improvements and cannot be required to solely fund such improvements. As discussed, the CVTIP does not include widening or passing lane improvements that could address traffic congestion conditions, however widening or passing would not reduce the volume of traffic and thus the exceedance of the ADT volume threshold. Even eliminating the Proposed Project would not reduce the impact to less than the ADT threshold. Thus, there is no feasible project mitigation to address this impact. Therefore, the Proposed Project would have a *considerable and unavoidable* contribution to a significant cumulative impact.

Under existing and cumulative conditions, the ADT threshold on Segment 10 would not be exceeded. However, the Proposed Project trips plus cumulative conditions exceed the ADT threshold. There is no feasible mitigation measure to reduce the ADT to below the threshold short of restricting the number of single-family dwellings to approximately 115 units (or eliminating the condo/townhouse units and reducing single-family dwellings to approximately 131 units). However, this is a cumulative impact, not a project-level impact, and thus it would be unfair (and illegal under the U.S. Constitutional limits established in the *Nollan* and *Dolan*

Supreme Court rulings[3]) to require this cumulative impact to be entirely remedied by this Project, and thus the downsizing options above are not considered feasible. Furthermore, these drastic downsizing options would not meet the Project's objectives. This would be a significant and unavoidable impact. Therefore, the Proposed Project would have a *considerable and unavoidable* contribution to a significant cumulative impact.

130-Unit Alternative

The 130-Unit Alternative would result in similar contributions to Segment 1 through Segment 7 as the Proposed Project. Therefore, the 130-Unit Alternative would have a *considerable and unavoidable* contribution to a significant cumulative impact to these segments of Carmel Valley Road.

For Segment 10, there is no feasible mitigation measure to reduce the cumulative impact of the 130-Unit Alternative relative to the ADT threshold short of drastically downsizing the Project. Reducing the single-family element to only 113 units would keep the cumulative impact below the ADT threshold. Eliminating the condo/townhouse units and restricting the single-family lots to approximately 26 lots would keep the cumulative impact below the ADT level.

However, as noted above, imposing these downsizing options solely on the 130-Unit Alternative is not considered feasible due to legal limitations. In addition, these restrictions would not meet the alternative's objectives. Therefore, the 130-Unit Alternative would have a *considerable and unavoidable* contribution to a significant cumulative impact to these segments of Carmel Valley Road.

Cumulative Impact TR-C5: Adequate Sight Distance (less than considerable)

Proposed Project

As described in Section 3.7, *Transportation and Traffic*, the sight distance at the intersection of Rio Road and Carmel Valley Road is satisfactory for the speeds prevailing on Carmel Valley Road, and the Proposed Project would have a *less-than-considerable* contribution to a cumulative impact.

130-Unit Alternative

Similarly to the Proposed Project, under the 130-Unit Alternative, the sight distance at the intersection of Carmel Valley Road and Rio Road is satisfactory. Therefore, the 130-Unit Alternative would have a *less-than-considerable* contribution to a cumulative impact.

Cumulative Impact TR-C6: Changes to Transit and Bicycle Travel Access (less than considerable)

Proposed Project

As described in Section 3.7, the site would improve transit and bicycle travel through provision of trail connections and would accommodate bicycle and pedestrian travel within the project area

[3] These rulings established the principle that government development conditions of approval or mitigation must have a nexus and be proportional to the project's impacts. Placing the burden 100 percent on a single contributor to a cumulative impact would violate the proportionality requirement.

without impeding transit access. Therefore, the Proposed Project would have a *less-than-considerable* contribution to a cumulative impact.

130-Unit Alternative

Similarly to the Proposed Project, the 130-Unit Alternative would improve transit and bicycle travel through multi-use trail through the site to Palo Rancho Regional Park and commercial development through Rio Road west. Unlike the Proposed Project, the extension of Rio Road west would only serve bicycles, pedestrians, and emergency vehicle access under this alternative. Because the 130-Unit Alternative would provide improved bicycle access and would not impeded transit access, it would have a *less-than-considerable* contribution to a cumulative impact.

Cumulative Impact TR-C8: Construction Traffic (considerable and unavoidable with mitigation)

Proposed Project

Project construction traffic combined with cumulative traffic would result in short-term increases in traffic volumes that would add traffic to existing intersection and roadway segments with deficient operations at certain locations. **Mitigation Measure TR-3** (described in Section 3.7, *Transportation and Traffic*) would reduce construction period impacts, but would not avoid all contributions to locations with existing failing traffic operations so the Proposed Project construction traffic would have a *considerable and unavoidable* contribution to a cumulative impact.

130-Unit Alternative

Similar to the Proposed Project, construction traffic combined with cumulative traffic would result in short-term increases in traffic volumes that would add traffic to existing intersection and roadway segments with deficient operations at certain locations. **Mitigation Measure TRA-4** (described in Section 3.7) would reduce construction period impacts, but would not avoid all contributions to locations with existing failing traffic operations, so the 130-Unit Alternative's construction traffic would have a *considerable and unavoidable* contribution to a cumulative impact.

Air Quality

Cumulative Impact AIR-C1: Cumulative Effect on Air Quality (less than considerable)

Proposed Project

According to Monterey Bay Unified Air Pollution Control District guidelines, a land use project is considered to have a significant cumulative impact if the project's emissions are not accommodated in the Air Quality Management Plan (AQMP) or if localized carbon monoxide (CO) hotspots exceed State and federal ambient air quality standards (AAQS) under cumulative traffic conditions.

As described in Section 3.8, *Air Quality*, the Proposed Project, combined with "approved but not built dwelling units" is not anticipated to exceed the Association of Monterey Bay Area Governments' 2020 forecast. Therefore, the Proposed Project emissions are accommodated in the AQMP.

The Proposed Project would add limited traffic volumes to certain roadways and intersections that are already congested. As described in Section 3.8, *Air Quality*, a number of intersections in the project vicinity are expected to operate at LOS D or worse under existing plus project conditions.

This would also be true under cumulative plus project conditions. However, as discussed in Section 3.8, prior CO analysis for the Pebble Beach Company buildout project EIR (Monterey County 2011) of intersections with congested conditions and high intersection volumes has shown that ambient CO concentrations would be well below State and federal AAQS.[4] Therefore, localized CO hotspots exceeding State and federal AAQS under cumulative with project traffic conditions for this project are not expected. The Proposed Project would not result in project- or cumulative-level impacts related to CO hotspots.

130-Unit Alternative

Similar to the Proposed Project, as described in Section 3.8, *Air Quality*, the 130-Unit Alternative is not anticipated to exceed AMBAG's 2020 forecast. Furthermore, as described in Section 3.8, the 130-Unit Alternative would not be expected to result in localized CO hotspots exceeding State and federal AAQS under cumulative traffic conditions. Therefore, the 130-Unit Alternative would not result in project- or cumulative-level impacts on air quality.

Cumulative Impact AIR-C2: Cumulative Elevated Health Risk from Exposure to Construction-Related Emissions (less than considerable)

Proposed Project

As indicated in Section 3.8, *Air Quality*, construction of the proposed development is anticipated to involve the operation of diesel-powered equipment for various onsite construction and for hauling of materials and importation of soil. As discussed in Section 3.8, *Air Quality*, **Table 3.8-12**, the worst-case construction activities are expected to result in a maximum risk of 8.45 cases of cancer per million and a chronic Health Index score of 0.03 at the most affected sensitive receptor location. The Proposed Project level of exposure and risk is below MBUAPCD's cancer risk and health hazard thresholds.

Cumulative development of visitor-serving units might occur on other parts of the Rancho Cañada Golf Club, but it is expected to occur farther away from the sensitive receptors affected by the Proposed Project, with the exception of construction traffic along Carmel Valley Road. Limited residential development also may occur along Val Verde Road, but approval of the Proposed Project would limit the amount of potential development due to subdivision there. Flood control and habitat restoration projects in lower Carmel Valley may also contribute to diesel emission health effects during construction.

The thresholds for cancer and non-cancer risks are designed to assess the incremental contribution of a project to overall cumulative health risks. Because the Proposed Project would result in risks below these thresholds, the Proposed Project would have a *less-than-considerable* contribution to a cumulative impact.

[4] In the Pebble Beach 2011 EIR, cumulative plus project volumes (5,382 PM peak hour volume) were analyzed for CO impacts at the SR1/Carpenter intersection and the results were 4.03 ppm, compared to federal and state 1-hour standards of 35 ppm and 20 ppm. The cumulative plus project PM peak hour volumes for the Proposed Project were 5,430 at the SR1/Carpenter intersection and 3,750 at the Carmel Valley Road/SR 1 intersection affected by the Proposed Project under cumulative plus project conditions. These are the highest volume intersections affected by the project. Since the modeled levels in the Pebble Beach EIR were for volumes nearly the same as those under cumulative plus project conditions with this Proposed Project, the CO levels with the project would also be under the federal and state standards and thus less than significant.

130-Unit Alternative

As shown in Section 3.8, *Air Quality*, **Table 3.8-13**, with the 130-Unit Alternative, construction activities are expected to result in a maximum risk of 5.27 cases of cancer per million and a Chronic Non-Cancer Health Index score of 0.01 at the most affected sensitive receptor. This level of exposure and risk is below MBUAPCD's cancer risk and hazard thresholds. Therefore, the 130-Unit Alternative would have a *less-than-considerable* contribution to a cumulative impact.

Noise

Cumulative Impact NOI-C1: Exposure of Noise-Sensitive Land Uses to Cumulative Traffic Noise that Exceed County Noise Compatibility Standards (less than considerable)

Proposed Project

Project-related traffic noise increases to existing land uses would occur at several roadways in the Project vicinity. The Project's contribution to noise levels in the area, in conjunction with cumulative noise in the future is discussed here.

Existing traffic noise levels along Carmel Valley Road near the project are greater than 60 dBA 50 feet from the roadway and would worsen with cumulative traffic. However, the Project's contribution to roadway noise level, as shown in **Table 4-5** below, would be far less than 1 dBA on Carmel Valley Road, and thus would not substantially result in changed noise levels along this roadway. As such, the Project would not contribute to a significant cumulative impact on noise along Carmel Valley Road.

As shown in **Table 4-5** below, future noise levels along Rio Road east to Carmel Valley Road, with and without the Project, are expected to be relatively low and do not result in any land use incompatibilities as they would be less than 55 dBA and below the residential standard.

The Project-related contribution to cumulative traffic noise on Carmel Rancho Boulevard would be 0.1 or less, as shown in **Table 4-5**, and not noticeable.

Although the Proposed Project would connect the new residential area to Rio Road to the west, new project residents would be the only contributor of new traffic noise between the Project and Carmel Rancho Boulevard. Because the segment traffic noise level would be less than 55 A-weighted decibels (dBA) (the residential noise standard), the Project is not considered to contribute considerably to a cumulative impact along this segment of Rio Road. On Rio Road between the project site and Carmel Rancho Boulevard, and west of Carmel Rancho Boulevard to SR 1, future traffic noise levels are expected to be 55.7 dBA and 63.0 dBA (which exceed the residential standard), respectively, and the Project would increase cumulative traffic noise levels by 1 dBA and 0.2 dBA, respectively, for the residential area along this segment. However, a 1 dBA contribution would be below the threshold of perceptibility along this segment. Thus, the Project contribution is less than considerable.

The Project's contribution to traffic noise would be below 3 dBA at all affected roadways, which is generally considered to be the threshold of perceptibility for noise level changes. The Project would not contribute considerably to substantial cumulative increases in noise.

Table 4-5. Cumulative Traffic Noise Modeling Results for the Proposed Project

Road	Segment	Existing CNEL* (dBA)	Cumulative CNEL* (dBA)	Cumulative Plus Project CNEL* (dBA)	Project Increase in Noise (dBA)
Carmel Valley Road	East of Rio Road	69.3	70.8	70.8	0.0
	Rio Road to Carmel Middle School	69.3	70.9	71.0	0.1
	Carmel Middle School to Carmel Rancho Boulevard	69.6	71.4	71.5	0.1
Rio Road East	South of Carmel Valley Road	48.6	52.6	54.8	2.2
Carmel Rancho Boulevard	South of Carmel Valley Road	64.4	65.3	65.3	0.0
	North of Rio Road	63.3	63.4	63.5	0.1
Rio Road West	Project site to Carmel Rancho Boulevard	51.5	55.7	56.8	1.0
	Carmel Rancho Boulevard to Highway 1	62.5	63.0	63.1	0.2

Source: **Appendix G**.

*50 feet from roadway centerline

CNEL = community noise equivalent level

130-Unit Alternative

The results of the cumulative traffic modeling are shown below in **Table 4-6**. Comparing the results in **Table 4-6** to the results of **Table 4-5** shows that the 130-Unit Alternative would result in less severe cumulative noise increases at all modeled roadways. As a result, the 130-Unit Alternative, like the Project, would not result in any considerable cumulative impacts.

Table 4-6. Cumulative Traffic Noise Modeling Results for the 130-Unit Alternative

Road	Segment	Existing CNEL* (dBA)	Cumulative CNEL* (dBA)	Cumulative Plus Project CNEL* (dBA)	Project Increase in Noise (dBA)
Carmel Valley Road	East of Rio Road	69.3	70.8	70.8	0.0
	Rio Road to Carmel Middle School	69.3	70.9	71.0	0.1
	Carmel Middle School to Carmel Rancho Boulevard	69.6	71.4	71.5	0.1
Carmel Rancho Boulevard	South of Carmel Valley Road	48.6	65.3	65.4	0.0
	North of Rio Road	64.4	63.4	63.4	0.0
Rio Road East	South of Carmel Valley Road	63.3	52.6	54.6	2.0
Rio Road West	Project site to Carmel Rancho Boulevard	51.5	55.7	55.7	0.0
	Carmel Rancho Boulevard to Highway 1	62.5	63.0	63.0	0.0

Source: **Appendix G**.

*50 feet from roadway centerline

CNEL = community noise equivalent level

Public Services and Utilities

Cumulative Impact PSU-C1: Cumulative Increase in Demand for Public Services and Utility Infrastructure and Capacities (less than considerable)

Proposed Project

Regional development creates cumulative demand on all aspects of public services and utility provisions by increasing the number of residents, occupants, and visitors to the area that is discussed in this section.

Fire, Emergency, and Police Services

The Proposed Project, along with other development projects, would increase demand for fire protection and medical emergency services. As described in Section 3.10, *Public Services, Utilities, and Recreation,* the Project would not change service ratios and response times. The project design must comply with all applicable building code standards and any additional County, CVMP, and local fire district policies related to fire and emergency response. The new residents in the Proposed Project would contribute to the tax base, which would help fund needed expansion in fire and emergency services over time. However, under CEQA, impacts related to these public services occur only if the demand for such services were to result in construction of new fire, emergency services, or police facilities that would result in secondary physical impacts on the environment. Given the relatively limited buildout within Carmel Valley allowed by the CVMP, additional public service

facilities are not likely and thus the Proposed Project would have a *less-than-considerable* contribution to a significant cumulative impact.

Emergency Access

As described in Section 3.10, *Public Services*, *Utilities*, *and Recreation*, the Proposed Project would provide adequate emergency access and egress to the project site. Local cumulative development of visitor-serving units on other parts of the Rancho Cañada Golf Club would also require emergency access and egress, but Rio Road east or direct access from Carmel Valley Road could provide such access and egress. Thus, the Proposed Project would have a *less-than-considerable* contribution to a significant cumulative impact on emergency access.

Wildland Fire Hazard

As described in Section 3.10, *Public Services, Utilities*, *and Recreation*, although the Proposed Project would be located across the river from an open space area, it would not significantly increase the risk of loss, injury, or death involving people or structures resulting from wildfires. Local cumulative development of visitor-serving units on other parts of the Rancho Cañada Golf Club would likely be along Carmel Valley Road and would not be directly adjacent to wildlands. Thus, the Proposed Project would have a *less-than-considerable* contribution to a significant cumulative impact on wildland fire hazard.

Water Demand

Cumulative development in the Carmel Valley and greater Monterey Peninsula would result in increasing demand for water supplies, which is primarily delivered by California American Water (Cal-Am). New supplies of water for Cal-Am will need to be found to meet increasing demand. Although current planning for desalination projects, including Cal-Am's proposal as well as the Deep Water Desal and People's Moss Landing Desal, are under way, the projects have not begun construction and timing for completion is uncertain. Currently, water availability is extremely limited due to legal constraints on withdrawals from the Carmel River and the Seaside aquifer and many new developments are placed on hold until new sources of water can be found. Therefore, any new development reliant on Cal-Am for potable water supply would contribute to cumulative water impacts. The recently approved Eastwood/Odello Water Right Change Petition will provide some additional water within the Carmel River watershed by changing use from irrigation to municipal uses, but this will not remove all current cumulative water supply deficits.

As explained in Section 3.10, *Public Services, Utilities*, *and Recreation*, compared to the existing water demand, the residential development would result in a net reduction in water use and would provide a dedication of water for instream uses. As such, the Project would benefit both water supply and biological resources in the Carmel River. Therefore, the Proposed Project would have a *less-than-considerable* contribution to a significant cumulative impact on water supply.

Demand for Water and Sewer Infrastructure

Cumulative development in the Carmel Valley and greater region would result in increasing demand for water and sewer infrastructure. As discussed in Section 3.10, *Public Services, Utilities*, *and Recreation*, the Proposed Project would provide new connections to existing sewer lines that have capacity sufficient to serve the Project. For water supply, the Project would require local water treatment facilities and pipelines. The secondary impacts of such facilities would be reduced to a *less-than-significant* level by **Mitigation Measure PSU-1** (described in Section 3.10). Because the

Project would provide new sewer connections, sewer infrastructure is adequate to serve the Project, and mitigation would address secondary impacts of new water infrastructure, the Proposed Project would have a *less-than-considerable* contribution to a significant cumulative impact on water supply.

Wastewater Treatment

The Proposed Project, in combination with other development projects, would result in an increased demand for wastewater treatment services provided by Carmel Area Wastewater District (CAWD). As stated in Section 3.10, *Public Services, Utilities, and Recreation*, the CAWD treatment facility is operating at 50 percent below its available capacity and has a remaining capacity of approximately 1.6 million gallons per day (gpd). The addition of a maximum of up to 280,170 gpd from the Proposed Project would still leave more than 1.3 million gpd available to address cumulative future wastewater treatment demands. Thus the Project would have a *less-than-considerable* contribution to a cumulative impact on wastewater services.

Utility Disruption

The Proposed Project, in combination with other development projects, could result in cumulative utility disruption if the Proposed Project is in construction at the same time as other projects. However, **Mitigation Measure PSU-2** would reduce the Project's contribution to any cumulative impact to a *less-than-considerable* level by providing coordination with utility service providers to reduce the potential for service interruptions.

School Services

The Proposed Project would contribute to a 2 percent increase in Carmel Unified School District enrollments. While cumulative development would also contribute to school enrollments, any future homeowners and developers would be required to pay school impact fees at the time of construction on their residential site. Payment of these developer fees would offset any potential physical impacts because of new or expanded school facilities pursuant to Government Code Section 65995(e). Therefore, cumulative impacts related to schools would be *less than significant* and the Project would not contribute to a significant cumulative impact.

Recreational Demand and Open Space

Although the Proposed Project would result in a loss of one 18-hole golf course, it would increase the current quantity of open space in the Carmel Valley area by dedicating 31 acres for habitat conservation, 2.5 acres for neighborhood parkland, and 0.5 acre of open space. As discussed in Section 3.10, *Public Services, Utilities, and Recreation*, the County contains numerous parks and open space areas, which greatly exceed population-to-parkland ratio requirements. As such, future cumulative development is not expected to result in a negative cumulative impact on recreational services and facilities because recreational facilities are ample relative to the County population. The Proposed Project would have a net *beneficial* impact on recreational resources by providing recreational areas in excess of County requirements.

Landfill Capacity

Cumulative development would increase the number of residents in the unincorporated Monterey County area. These residents would generate an increased demand for solid waste, green waste, and recycling disposal needs.

Monterey Regional Waste Management District (MRWMD) is currently operating substantially below its maximum daily permitted disposal tonnages. Currently the Monterey Peninsula Landfill and Recycling Facility have estimated remaining capacity of 48 million tons and are expected to be open for approximately 150 years. Increased solid waste, green waste, and recycling needs resulting from cumulative development including the Project can be accommodated by the existing collection and disposal services. Therefore, project contributions to cumulative impacts related to solid waste would be *less than considerable*.

130-Unit Alternative

The 130-Unit Alternative would result in similar impacts on public services and utilities as the Proposed Project. Similar to the Proposed Project, the 130-Unit Alternative would make less-than-significant contributions to cumulative impacts related to fire, emergency and police services, emergency access, wildland fire hazards, water demand, wastewater, schools, recreational demand, and open space and landfill capacity. With the implementation of **Mitigation Measures PSU-1** and **PSU-2**, the 130-Unit Alternative would have *less-than-considerable* contributions to impacts related to water infrastructure and utility disruptions.

Cultural Resources

Cumulative Impact CR-C1: Cumulative Impacts on Unknown and Undiscovered Cultural Resources (less than considerable with mitigation)

Proposed Project

Cumulative impacts related to cultural resources could occur where excavation or construction activities uncover buried historical, archaeological, or paleontological resources. The background research conducted for the project area revealed no significant historical or archaeological resources. Additionally, mitigation measures in Section 3.11, *Cultural Resources*, specify treatment protocols to address potentially undiscovered cultural resources. Any new development would be required to adhere to City, County, State, and federal requirements related to cultural resources as part of the CEQA process. These impacts would be mitigated at the project level, and therefore the Proposed Project's contribution to cumulative impacts associated with damage or loss of such resources in the region would be *less than considerable*.

130-Unit Alternative

The 130-Unit Alternative is consistent with the findings for the Proposed Project for cumulative impacts on cultural resources, in that cumulative impacts related to cultural resources could occur where excavation or construction activities uncover buried historical, archaeological, or paleontological resources. The background research conducted for the 130-Unit Alternative revealed no significant historical or archaeological resources. Additionally, mitigation measures in Section 3.11, *Cultural Resources*, specify treatment protocols to address potentially undiscovered cultural resources. Any new development would be required to adhere to City, County, State, and federal requirements related to cultural resources as part of the CEQA process. These impacts would be mitigated at the project level, and therefore the 130-Unit Alternative contribution to cumulative impacts associated with damage or loss of such resources in the region would be *less than considerable*.

Population and Housing

Cumulative Impact POP-C1: Cumulative Impacts Related to Population and Housing (considerable and unavoidable for the Proposed Project/less than considerable for the 130-Unit Alternative)

Proposed Project

However, as discussed above, the Project's 281 housing units would be counted against the 2013 CVMP 190-unit housing unit limitation for new subdivisions and would eliminate any new subdivision residential units in the CVMP area (other than 24 units reserved for Delfino). With the project, the limit for new units would have to be expanded to 305 units, which would be 115 more residential units and population than anticipated in the 2013 CVMP. Thus, in the context of cumulative Project and 2013 CVMP buildout, the Proposed Project would induce population growth in excess of that anticipated in local land use plans. As discussed above, this additional growth would contribute considerably to cumulative traffic impacts, some of which are *significant and unavoidable*. As a result, the Proposed Project would induce substantial population growth in the CVMP area in excess of that anticipated in local land use plans and this additional growth would have significant secondary impacts, in this case on traffic. Thus, the Proposed Project would have a *significant* contribution to cumulative impacts on population and housing. As described above, cumulative traffic impacts would be *significant and unavoidable* and thus the Project's cumulative impacts related to population inducement would be *considerable and unavoidable*.

130-Unit Alternative

The 130-Unit Alternative would not result in residential development greater than that anticipated in the 2013 CVMP, unlike the Proposed Project, because the 130-units would not exceed the 2013 residential subdivision unit cap and thus, the 130-Unit Alternative would have *less-than-considerable* contribution to cumulative impact.

Greenhouse Gas Emissions and Climate Change

Cumulative Impact GHG-1: Cumulative development could result in cumulatively significant greenhouse gas emissions, but the Project would not contribute considerably to cumulative emissions, with mitigation.

Proposed Project

As described in Section 3.13, *Greenhouse Gas Emissions and Climate Change*, the unique chemical properties of greenhouse gases (GHGs) enable them to become well mixed within the atmosphere and transported over long distances. Climate change is a cumulative issue and the geographic scope for cumulative GHG emissions impacts is global, as GHGs are emitted by innumerable sources worldwide. Thus the analysis presented in Section 3.13, is inherently cumulative.

No single project, when taken in isolation, can cause climate change because a single project's emissions are insufficient to change the radiative balance of the atmosphere. Because climate change is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, global climate change would have a significant cumulative impact on the natural environment as well as on human development and activity.

As described in Impact GHG-1 in Section 3.13, *Greenhouse Gas Emissions and Climate Change*, the significance threshold used to evaluate Project GHG emissions is tied directly to the need to address cumulative GHG emissions and is based on the land use efficiency needed by 2020 to be consistent with AB 32.

With **Mitigation Measures GHG-1** and **GHG-2**, the Project's GHG emissions would be less than the cumulative contribution threshold. Consequently, the impact would be less than cumulatively considerable and the Project would, therefore, not conflict with an applicable plan, policy, or regulation of an agency adopted for reducing the emissions of greenhouse gases.

130-Unit Alternative

Similar to the Proposed Project, with **Mitigation Measures GHG-1** and **GHG-2**, the 130-Unit Alternative's GHG emissions would be less than the cumulative contribution threshold. Consequently, the impact would be less than cumulatively considerable and the Project would, therefore, not conflict with an applicable plan, policy, or regulation of an agency adopted for reducing the emissions of greenhouse gases.

Growth-Inducing Impacts

CEQA Requirements

Section 21100 of the California Public Resources Code requires an EIR to include a detailed statement of the proposed project's anticipated growth-inducing impact. More specific guidance is provided by Section 15126.2(d) of the State CEQA Guidelines, which require that the analysis of growth-inducing impacts discuss the ways in which the project could foster economic or population growth or the construction of additional housing in the project area. The analysis must also address project-related actions that, either individually or cumulatively, would remove existing obstacles to population growth. The purpose of this section is to examine the Proposed Project's and 130-Unit Alternative's likely impacts related to population growth, consistent with these statutory requirements.

Approach to the Growth-Inducement Analysis

Regulatory Context

California law requires that each county develop a comprehensive, long-term general plan to guide its land use decision-making and physical development (Government Code Section 65300 *ff*). The intent is to ensure that growth takes place in a controlled manner, with an appropriate balance of land uses maintained and all needed services provided. This goal is reflected in 2010 Monterey County General Plan contents mandated under Government Code Section 65302—of the seven mandatory "elements," or chapters, three relate directly to growth: the land use element establishes the pattern of future land uses, the circulation element plans the road system that will serve approved land uses, and the housing element identifies the means by which the county will meet its fair share of projected regional housing needs for all income groups.

2010 Monterey County General Plan

The 2010 Monterey County General Plan's policies provide a balanced pattern of growth that accommodates the demand for housing, employment opportunities, and public facilities and services while minimize the adverse impacts of increased urban development. The 2010 Monterey County General Plan contains general goals and policies to guide future growth in the unincorporated areas of the county and ensure that new and existing development is served with adequate public services (Monterey County 2010).

Growth Projections

Buildout under the current 2010 Monterey County General Plan in unincorporated areas in Monterey County is expected to result in an increase of 10,015 additional dwelling units, new commercial uses of 1,152 acres, and 26,729 new jobs, with an estimated buildout population of 207,424 persons, compared to a 2005 population of 110,083 persons (Monterey County 2010).

Growth-Related Impacts of the Proposed Project

Direct Growth Inducement

The 2013 CVMP allows up to 190 new residential units in new subdivisions.

Proposed Project

The Proposed Project would result in 281 new residential units and require amendment of the CVMP to allow up to 305 units (to include Delfino), which would exceed the allowable residential units by 115 units and would thus result in directly induced population growth greater than anticipated in the currently adopted General Plan and CVMP. The direct impacts of the project's 281 residential units is presented in Chapter 3 and earlier in this chapter related to contributions to cumulative impacts.

130-Unit Alternative

The 130-Unit Alternative would create 130 new residential units, leaving a balance of 60 units in the CVMP residential subdivision unit quota and thus would not directly induce population growth greater than that anticipated in the currently adopted General Plan and CVMP. The direct impacts of the 130 residential units are presented in Chapter 3 and earlier in this chapter related to contributions to cumulative impacts.

Indirect Growth Inducement

Proposed Project

The Proposed Project's residential units in Carmel Valley would increase economic activity in and beyond Carmel Valley. Increased economic activity could stimulate growth of services for employees and others. Because the Project would include 110 more residential units than anticipated in the current CVMP, it would create a slightly higher demand for services than anticipated in Carmel Valley or elsewhere. In Carmel Valley, growth limits are highly restrictive in terms of residential unit and visitor-serving unit quotas and thus the Project would not induce additional residential or visitor-serving units in the CVMP but may indirectly induce additional residential units outside the

CVMP (as a residential project, the Project is not likely to induce visitor-serving unit demand). While 110 more residential units would increase demands for commercial services somewhat, the area of CVMP designated for commercial land would not change and thus the induced demand is not likely to result in additional commercial development in the CVMP. However, commercial development may occur earlier than would otherwise occur with a slightly smaller residential development in the CVMP.

Outside the CVMP, employment to support the additional population would slightly increase because of the additional 110 residential units, which would result in potential additional commercial development and residential development. However, this induced growth is likely to be dispersed in adjacent parts of the County and incorporated cities and given the amount of demand is unlikely to result in greater commercial and residential development than anticipated in local plans. However, the buildout of commercial and residential development may occur earlier than would otherwise occur with a slightly smaller residential development buildout in the CVMP.

Indirect growth resulting from the Proposed Project is expected to lead to a number of indirect impacts on the natural and built environment, including those summarized below. These impacts are expected to be slightly higher than identified in the EIR for the 2010 General Plan, due to the slightly higher number of residential units in the CVMP and the related indirect level of growth inducement.

- **Aesthetics** – New growth could change scenic vistas, visual character, ridgelines, and other visual resources.
- **Air Quality** – Local air quality could worsen because of growth, because of elevated levels of vehicle emissions and increases in diesel particulate matter generated by construction activities.
- **Biological Resources** – The conversion of undeveloped land to homes, roads, businesses, and other built uses and expansion of intensive uses could reduce the area of wildlife habitat remaining in the region.
- **Cultural Resources** – The conversion of undeveloped land to homes, roads, businesses, and other built uses could affect historic and prehistoric resources that may exist.
- **Geology, Soils, and Seismicity** – Expansion of residential and other uses could increase the number of persons and structures subject to earthquakes, landslides, and other geophysical impacts.
- **Hazards and Hazardous Materials** – New growth could increase potential for wildland fire, and spills of petroleum and hazardous materials.
- **Hydrology and Water Quality** – The conversion of undeveloped land to homes, roads, businesses, and other built uses could increase impervious surfaces, resulting in drainage and flooding impact, and could increase point and non-point source pollution.
- **Noise** – Construction of homes, roads, businesses, and other built uses could result in equipment- and vehicle-related noise impacts. Additional noise generated by home maintenance and transportation activities could result from the subsequent population growth.
- **Public Services, Utilities, and Recreation** – As population grows, the demand for police and fire protection and for services such as schools, hospitals, and parks would undergo a corresponding increase. Additional utilities, such as increased wastewater treatment capacity and extensions of utility infrastructure, also would be needed.

- **Transportation and Traffic** – Area and local traffic would increase because of new development and increased numbers of through-commuters traveling to employment hubs.

By enabling growth, the Proposed Project would indirectly foster, in varying degrees, all of the growth-related impacts identified above. The County is responsible for effectively implementing 2010 Monterey County General Plan policies and other measures intended to mitigate the potential adverse impacts of future growth, including CEQA review of plans and projects. The Proposed Project would contribute to more indirect growth than the 2013 CVMP and the 2010 General Plan planned for, and this may result in slightly more severe significant impacts such as on cumulative traffic levels. The actual site-specific environmental impacts of this additional growth would depend on the actual additional areas of growth, which cannot be known without speculation.

130-Unit Alternative

The 130-Unit Alternative would facilitate growth of residential units in Carmel Valley, which would increase economic activity in and beyond Carmel Valley. Increased economic activity could stimulate growth of services for employees and demand for residential growth.

In addition, the 130-Unit Alternative would include transfer of up to 60 AF of the Project Applicant's water entitlement to other users in the Cal-Am service area. This would remove a constraint to growth of existing approved projects, existing legal lots, and/or future planned project consistent with current land use plans. Depending on the character of development, the water transfer could result in perhaps 120 to 240 new single-family residential units (assuming average water demand per unit of 0.25 to 0.5 AF) or more units (if apartments or condominiums). The water transfer could also remove a constraint to growth for commercial, institutional, or other uses in the Cal-Am service area. However, the proposed water transfer would not induce residential, commercial, or other development that is not otherwise allowable in local land use plans.

Indirect growth resulting from the 130-Unit Alternative is expected to lead to several indirect impacts on the natural and built environment, including those summarized below.

- **Aesthetics** – New growth could change scenic vistas, visual character, ridgelines, and other visual resources.
- **Air Quality** – Local air quality could worsen because of growth, because of elevated levels of vehicle emissions and increases in diesel particulate matter generated by construction activities.
- **Biological Resources** – The conversion of undeveloped land to homes, roads, businesses, and other built uses and expansion of intensive uses could reduce the area of wildlife habitat remaining in the region.
- **Cultural Resources** – The conversion of undeveloped land to homes, roads, businesses, and other built uses could affect historic and prehistoric resources that may exist.
- **Geology, Soils, and Seismicity** – Expansion of residential and other uses could increase the number of persons and structures subject to earthquakes, landslides, and other geophysical impacts.
- **Hazards and Hazardous Materials** – New growth could increase potential for wildland fire, and spills of petroleum and hazardous materials.

- **Hydrology and Water Quality** – The conversion of undeveloped land to homes, roads, businesses, and other built uses could increase impervious surfaces, resulting in drainage and flooding impact, and could increase point and non-point source pollution.
- **Noise** – Construction of homes, roads, businesses, and other built uses could result in equipment- and vehicle-related noise impacts. Additional noise generated by home maintenance and transportation activities could result from the subsequent population growth.
- **Public Services, Utilities, and Recreation** – As population grows, the demand for police and fire protection and for services such as schools, hospitals, and parks would undergo a corresponding increase. Additional utilities, such as increased wastewater treatment capacity and extensions of utility infrastructure, also would be needed.
- **Transportation and Traffic** – Area and local traffic would increase because of new development and increased numbers of through-commuters traveling to employment hubs.

Similar to the Proposed Project, by enabling growth, the 130-Unit Alternative would indirectly foster, in varying degrees, all of the growth-related impacts identified above. The County is responsible for effectively implementing the 2010 Monterey County General Plan policies and other measures intended to mitigate the potential adverse impacts of future growth, including CEQA review of plans and projects. Although the 130-Unit Alternative would contribute to growth, this growth would be allowable by the 2013 CVMP for the residential element (because it is within the remaining residential unit quota) and is thus anticipated by local planning. [5]

Significant and Unavoidable Impacts

Section 15126.2(b) of the State CEQA Guidelines requires an EIR to describe any significant impacts that cannot be mitigated to a level of insignificance. All of the impacts associated with the Proposed Project and 130-Unit Alternative would be reduced to a less-than-significant level through the implementation of identified mitigation measures and environmental commitments, with the exception of the impacts listed below.

- Impact LU-2: Conflicts with Land Use Plans Policies, or Regulations
- Cumulative Impact LU-C1: Cumulative Local Land Use Impacts
- Impact TR-2: Decrease LOS at Unsignalized Intersections.
- Impact TR-4: Decrease Peak-Hour LOS for Portions of State Route 1.
- Impact TR-8: Construction Traffic Decreases LOS.
- Cumulative Impact TR-C1: LOS Decrease at Signalized Intersections

[5] As noted in Chapter 2, Project Description, if the 130-unit Alternative is approved, the Applicant may comply with the County's Affordable Housing requirements through payment of an in-lieu fee. The potential environmental impacts of building units using the in-lieu fees are not analyzed specifically in this EIR because their location, timing, and character cannot be reasonably ascertained at this time in order to provide any meaningful environmental analysis. Such new development would be subject to any required environmental analysis at the time that actual affordable units would be built in part or in-whole with the in-lieu fee. The general character of such environmental impacts would be the same as residential development facilitated by the water transfer included in this alternative as described in the analysis of growth inducement in this chapter.

- Cumulative Impact TR-C2: LOS Decrease at Unsignalized Intersections.
- Cumulative Impact TR-C3: Peak-Hour LOS Decrease for Segments of SR1 and Carmel Valley Road.
- Cumulative Impact TR-C4: Exceed Average Daily Traffic Thresholds on Segments of Carmel Valley Road
- Cumulative Impact TR-C8: Construction Traffic.

The Proposed Project would result in the following significant and unavoidable impacts, but the 130-Unit Alternative would not.

- Impact POP-1: Induce Substantial Population Growth In Excess of Adopted Land Use Plans And That Would Result in Significant Secondary Physical Effects on the Environment
- Cumulative Impact POP-C1: Cumulative Impacts Related to Population and Housing.

Irreversible and Irretrievable Commitment of Resources

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

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

The Proposed Project and 130-Unit Alternative propose the creation of a housing community. This would require commitments of both renewable and nonrenewable energy and material resources for constructing the project. These may include natural woods, concrete, and mineral resources, fossil fuels, water, and other finite resources. Additionally, the Proposed Project and 130-Unit Alternative would involve converting a portion of land onsite into urban land uses, which tend to be irreversible for all practical purposes, unlike a golf course, which is not necessarily an irreversible dedication of land as evidenced by the proposed habitat preserves included in both the Proposed Project and the 130-Unit Alternative.