Chapter P7 Cumulative Impacts

3 Introduction

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4	This chapter presents a revised analysis of cumulative impacts related to
5	■ water supply and demand;
6	 Yadon's piperia;
7	 regional Monterey County highways; and
8	■ long-term increase in noise.
9	This revised analysis replaces the discussion of water supply and demand and
10	Yadon's piperia in Chapter 4.4 (Cumulative) in their entirety. This revised
11	analysis supplements the analysis in Chapter 4.4 of the Draft EIR concerning
12	traffic on regional Monterey County highways and long-term increases in noise.

Revisions Since the Draft EIR

- 14The key changes in analysis of cumulative impacts in this document compared to15the Draft EIR are summarized in the table and text below.
- 16 Water Supply and Demand
 - Impact PSU-D1 (C) has been changed from a less-than-considerable to a considerable contribution to a significant cumulative impact. This change is based on assessment of impacts on existing conditions and increased withdrawals from the Carmel River and Seaside Basin aquifers. The cumulative water demand analysis was updated to assess conditions representative of wet, average, drier than average, and very dry conditions compared to the normal and drier than normal year conditions analyzed in the Draft EIR.
 - The increased withdrawals from the Carmel River aquifer are also identified as a new considerable contribution (Impact BIO-Carmel River-1(C)) to cumulative impacts on the biological resources of the Carmel River including

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riparian vegetation, steelhead, California red-legged frog, and other sensitive plant and wildlife species.
The mitigation measures identified in Chapter P1, "Water Supply and Demand" will reduce the project's contribution to cumulative impacts to a less than significant level.

6 Yadon's piperia

- The conclusion of the Draft EIR (for Impact BIO-D1(C)) that the project's contribution to cumulative impacts to Yadon's piperia can be mitigated to a less than significant level has not changed, though the analysis and the mitigation have been changed as presented in this document.
- The results of spring 2004 surveys for this species are presented and the cumulative analysis updated using the results.
- The analysis of the project's direct impact has been changed as discussed in Chapter P2 of this document. The conclusions of Chapter P2 are used to identify the project's contributions to cumulative impacts in this chapter.
- The revised mitigation identified in Chapter P2 of this document will also address the project's contribution to cumulative impacts to a less than significant level.

19 Traffic on Regional Monterey County highways

- A new impact Impact TC-B3(C) has been added that analyzes the project's contributions to cumulative traffic on regional Monterey County Highways, including Highways 1, 68, 101, and 156, which are identified as considerable.
 - Mitigation for considerable contributions to significant cumulative impacts on regional Monterey County highways is identified as fair-share contributions to proposed roadway improvements along Highways 1, 68, 101, and 156 that would reduce the project's contribution to a less than significant level.
 - The analysis in the Draft EIR of project contributions to cumulative traffic on Highway 1 from Pebble Beach south into Carmel has not been changed, but is included in this document for ease of reference.

32 Long-term increase in Noise

The analysis in the Draft EIR of project contributions to cumulative increases in long-term noise(Impact NOISE-A1(C)) was supplemented by analysis of traffic noise along Bristol Curve. The cumulative noise impact and the project's contribution are identified as less than significant.

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in long-term noise related to ventilator fans (Impact NOISE-A1(C)) at the Inn at Spanish Bay and the Lodge at Pebble Beach has not been changed except, as noted in Chapter P5, the performance standard for mitigation has been altered to meet the new significance criteria. SUMMARY OF CHANGES TO DRAFT EIR DEIR (PRDEIR) Text New or Expanded Text is Added to DEIR DEIR Text Replaced by PRDEIR 4.4 Cumulative Impacts (PRDEIR Chapter P7 re: Water Supply and Demand, Yadon's piperia, Traffic, and Noise) Summary of Impacts Adds Impact BIO-Carmel River-1 to Replaces Biological Resources Line

The analysis in the Draft EIR of project contributions to cumulative increases

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Summary of Impacts	Adds Impact BIO-Carmel River-1 to Biological Resources Adds Line B3 to Transportation and Circulation	Replaces Biological Resources Line D1, Public Services and Utilities Line D1, and Noise Line A1
Biological Resources		Replaces Yadon's Piperia Cumulative Impact Analysis (Section D) on pages 4.4-18 to page 4.4-19.
Public Services		Replaces Water Demand Cumulative Impact Analysis (Section D) on pages 4.4-33 to page 4.4-41.
Transportation and Circulation	Adds new Impact TC-B3 on page 4.4-51 regarding cumulative impacts on regional highways and mitigation TC-B3	
Long-Term Noise	Adds new text on page 4.4-56 regarding traffic noise on Bristol Curve	
	Updates text on page 4.4-56 regarding ventilator fans	

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8 Summary of Cumulative Impacts

9 10 The following table provides a summary of the cumulative impacts for the subjects analyzed in this document and the significance conclusion.

Summary of Revised Cumulative Impact Analysis

IMPACTS					
Biological Resources					
D. Special Status Species					
D1(C). Under cumulative plus project conditions, the Proposed Project would contribute to the loss of Yadon's Piperia on the Monterey Peninsula and surrounding region.	۲				
Carmel River-1(C). Under cumulative plus project conditions, the Proposed Project could contribute to the loss of riparian vegetation, California Red-Legged Frog, steelhead and other biological resources in the Carmel River due to an increase in water withdrawals.	۲				
Public Services and Utilities					
D. Water Demand					
D1(C): Under cumulative plus project conditions, there would be a cumulative increase in direct and indirect demand for potable water that would result in increased withdrawals from the Carmel River and Seaside aquifers.					
Transportation					
B. Traffic Contributions to Existing Unacceptable Levels					
B3 (C) Under cumulative plus project conditions, the Proposed Project would contribute traffic to regional Monterey County highway segments and intersections that currently operate at unacceptable levels.	0				
Mitigation Measure TC-B3(C). The applicant would be responsible for payment of a traffic impact fee for the Highway 1 Project Study Report improvements.					
Noise					
A. Long-term Increase in Noise					
A1 (C). Cumulative with project traffic noise would not result in exposure of persons to noise levels in excess of standards established in the County's "Land Use Compatibility for Community Noise" chart and/or expose noise-sensitive uses to a significant change in noise due with the exception of one noise source.	۲				

• = Significant Unavoidable Considerable Contribution to a Cumulative Impact

• = Considerable Contribution to a Cumulative Impact that can be Mitigated to a Less-than-Significant Level With Mitigation identified for Direct Impacts AND additional cumulative mitigation.

• = Considerable Contribution to a Cumulative Impact that can be Mitigated to a Less-than-Significant Level With Mitigation identified for Direct Impacts

 \bigcirc = Contribution to a Cumulative Impact is not considerable

— = No Cumulative Impact or Not Applicable

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1 Impacts and Mitigation Measures

Water	Supply	and	Demand
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Analysis of cumulative effects on water supply and demand in this chapter considered the following cumulative developments in the Del Monte Forest:

- Existing Del Monte Forest Vacant lots. Presumed 1 dwelling unit per lot (144 lots)
- Potential Development in Area F-1 and J (35 dwelling units). The amount of dwelling units is based on the existing Local Coastal Plan (Measure A would reduce the potential lots, with the Proposed Project to 4 dwelling units). Development is currently constrained by a resource constraints overlay¹. However, this analysis presumes that development occurs, as a conservative approach.
- Potential Development in Area X and Y (43 dwelling units). The amount of dwelling units is based on the existing Local Coastal Plan (Measure A would not change buildout potential of these areas). Development is currently constrained by a resource constraints overlay. However, this analysis presumes that development occurs, as a conservative approach.
- Existing Users of Water from the CAWD/PBCSD RWP. The demands of other users of recycled water are also considered in the cumulative analysis, because of the intention of the applicant to use recycled water for irrigation at the Proposed Golf Course, the New Equestrian Center, and the Spanish Bay Driving Range. Existing use was considered in the assessment of indirect demand for potable water for irrigation due to limitations in the existing RWP to provide sufficient recycled water.

General growth in the Monterey Peninsula was also considered in the evaluation of regional water supply and demand on a qualitative basis.

Impact PSU-D1(C): Under cumulative plus project conditions, the Proposed Project would result in increased Cal-Am withdrawals from Carmel River over existing conditions, which currently exceed Cal-Am's legal rights and have resulted in secondary biological resource impacts. The increase in cumulative demand would also result in increased Cal-Am withdrawals from the Seaside Basin, which exceeds the estimated safe yields in certain years. This is a significant cumulative impact to which the project's contributes considerably that can be reduced to a less-than-significant level with the mitigation identified for project direct impacts.

¹ The resource constraints overlay in the Del Monte Forest Local Coastal Plan was imposed due to water supply, wastewater treatment, and traffic constraints. Under the existing LCP, a finding must be made that adequate water supply wastewater treatment capacity, and traffic capacity exists to serve proposed development prior to removal of the overlay. Measure "A", if certified by the California Coastal Commission, would remove the resource constraint overlay on Areas F-1 and J, but not on Areas X and Y.

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1Based on the cumulative characteristics identified in this chapter, an estimated2178 AFY of cumulative demand (other than the project) for average year potable3water use is included in the cumulative analysis (see Table P7-1).

Table P7-1. Cumulative Potable Water Demand in the Del Monte Forest (other than Project)

Element	Number of Potential Units	Demand (AFY)
Existing Lots	144	115
Area F-1 and J	35 ¹	28
Area X and Y	43	34
Cumulative (Other than Project, average year)	222	178
Cumulative - Wet Year		169
Cumulative - Dry Year		186
Cumulative - Very Dry Year		195
¹ Measure A, if certified, would reduce the	ne potential number of lots fro	om 35 to 4.
Demand based on 0.8 AFY/residence (De	el Monte Forest Average)	

As noted above, the existing users of water from the RWP also indirectly use potable water for irrigation due to existing RWP limitations. The demand of existing users was also included in the cumulative analysis of water demand. Scenarios 1A, 1B, 2, and 5 described In Chapter P1 and Appendix G already account for the cumulative indirect potable water demand with the existing RWP. When the cumulative demand is combined with the project demand, the cumulative potable water demand of the project can be estimated. As presented in Table P7-2, the cumulative with project potable water demand would increase by an estimated 369 AFY in an average year. As noted above in Chapter P1, project contributions to this demand would be 191 AF in an average year. The summary of results of this analysis is presented in Table P7-2.

	Total Demand	Total Demand Existing R	
		Recycled	Potable
	Wet Year		
Existing Irrigation Use	747	602	144
Cumulative Demand with Project	1147	670	477
Cumulative Change with Project	400	68	333
Project Contribution	232	68	164
	Average Year		
Existing Users Demand	1007	689	318
Cumulative Demand with Project	1458	771	687
Cumulative Change with Project	451	82	369
Project Contribution	273	82	191
	Dry Year		
Existing Users Demand	1109	782	327
Cumulative Demand with Project	1597	796	801
Cumulative Change with Project	488	15	474
Project Contribution	302	15	287
	Very Dry Year		
Existing Users Demand	1330	933	398
Cumulative Demand with Project	1905	966	939
Cumulative Change with Project	574	34	541
Project Contribution	379	34	346

Table P7-2. Cumulative Water Demand with Project (AFY)

Details and Assumptions in Appendix G

Within the Del Monte Forest resource overlay constraints are in place on Areas F-1, J, X and Y, which presently prevents their development. Allocations within the Del Monte Forest and throughout the Monterey Peninsula are currently very limited due to regional water supply constraints. Cumulative developments other than the project are likely not to be able to obtain water from Cal-Am until the current constraints on regional water supply have been alleviated or an alternative source is identified. However, existing development has already resulted in a level of withdrawal by Cal-Am from the Carmel River that the State Water Resources Control Board has determined exceeds Cal-Am's legal rights and that adversely affects biological resources in the River, such as steelhead. Similarly, existing development has already resulted in a level of withdrawal from the Seaside Basin Coastal Subareas that has been identified by the Monterey Peninsula Water Management District as exceeding the Basin's safe yield in some recent years. Thus, the project's contribution to cumulative

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demand would exacerbate the existing significant cumulative impacts related to water supply and biological resources even without any future cumulative buildout. The project's contribution to significant cumulative impacts is considerable.

With the implementation of Mitigation Measures PSU-D1, PSU-D2, and PSU-D3 identified in Chapter P1, "Water Supply and Demand", the project's contribution to a significant cumulative impacts would be *less than significant*.

8 Yadon's Piperia

Analysis of cumulative impacts to Yadon's piperia considered the following development projects in the Del Monte Forest and a general assessment of impacts in the Monterey Region and beyond. The cumulative characteristics have not changed from the Draft EIR, except to note that cumulative development outside of the Del Monte Forest may also affect extant populations of Yadon's piperia.

- Completed PBCSD Office Expansion (8541 SF). This project site is located at the intersection of Lopez Road and Forest Lake Road. Proposed Project site Preservation Area I-1 is adjacent to the south. According to the IS/MND, the 2.2-acre expansion site contains Monterey pine forest with a relatively undisturbed native and non-native understory. Yadon's piperia was found near, but not within the construction disturbance zone. Mitigation measures to reduce impacts to Monterey pine forest, native trees, sensitive plants and sensitive wildlife were adopted prior to construction (County of Monterey 2002).
 - Potential Future SFDs in Area F-1 and J existing lots (3 lots, 35 potential dwelling units). These lots are owned by the applicant. The updated biological resource figures showing the Yadon's piperia occurrences on these sites are shown on biological resource figures in Appendix E.3.

Area F-1 is located along the east side of Congress Road. The Proposed Project Congress Road improvements are directly adjacent. Proposed Project Area F-2 is about 350' south across a fairway at the Poppy Hills Golf Course. Area F-1 contains about 10 acres of Monterey pine forest, which contains a substantial population of Yadon's piperia (4.5 acres, ~2500 individuals).

The two existing Area J lots are located northeast and south of the proposed Area K preservation area. These two lots contain about 9 acres of Monterey pine forest, which contains a substantial population of Yadon's piperia (1.7 acres, ~2,400 individual plants).

The development potential of these areas would be substantially less with the changes included in Measure A. However, as noted above the existing LCP is the baseline used to assess development potential in this document.

Potential Development in Area X and Y (43 potential dwelling units). These two areas presently have a resource constraint overlay in the Del Monte Forest LUP for traffic, sewer, and water limitations for development.

1 2 3	These areas are not owned by the applicant. Measure A did not lift the existing resource constraints, but retained the potential for future subdivision of these areas. Future development might occur if the resource constraints
4	are later lifted by the County.
5	Area X (23 acres, 23 potential dwelling units) is located just north of
6	Pescadero Point and north of 17-Mile Drive. The nearest Proposed Project
7	site is the Lodge at Pebble Beach. The southern half of Area X is within a
8	designated ESHA area for Monterey cypress according to Figure 2 of the Del
9	Monte Forest LUP, and thus could not be developed for housing (County of
10	Monterey 1987). It is unknown whether Yadon's piperia may be present on
11	this site.
12	Area Y (20 acres 20 potential dwelling units) is located southwest and
12	adjacent to Area R which is included within Proposed Project Preservation
14	Area POR. The area is north of Del Ciervo Road. Based on the aerial
15	photography and biological resource mapping for Area PQR (see Appendix
16	E.3), this area is covered by Monterey pine forest, and is directly adjacent to
17	an area containing Yadon's piperia, which likely to be present on the site.
18	Development in other parts of Monterey County. Yadon's piperia has
19	also been found in areas outside the Del Monte Forest from Palo Coronado
20	on the south (south of Point Lobos) to hear Elkhorn Slough on the north.
21	ruture development in some of these areas could also affect other 1 adolf s
	piperta populations that are not presently preserved.
23	Impact BIO-D1 (C). Under cumulative plus project conditions, project
24	development would contribute to the reduction in numbers of and
25	restriction of range of Yadon's piperia, a federally listed endangered native
26	orchid as well as contribute to cumulative indirect impacts. These
27	contributions are partially offset by applicant's proposed preservation,
28	transplantation, enhancement, and resource management. This is a
29	considerable contribution to a significant cumulative impact that can be
30	reduced to a less-than-significant level by the mitigation identified for
31	project direct and indirect impacts.
32	The distribution of Yadon's piperia is centered in the Monterey Peninsula where
33	plants are found throughout large undeveloped tracts of the Del Monte Forest.
34	The species' range extends north to Las Lomas near Santa Cruz County and
35	south to near Palo Colorado Canyon along the Big Sur Coast. Based on 1996
36	surveys, there are an estimated 26,000 plants that are protected within the Del
37	Monte Forest/PDP project area, Monterey Peninsula (outside the project area),
38	Point Lobos, and Prunedale, which constitutes about 15% of the known total
39	population (see Table P2-2 in Chapter P2, "Yadon's Piperia"). There are several
40	other small occurrences within the Del Monte Forest and beyond (including the
41	Marina and Palo Colorado Canyon occurrences outside the Monterey Peninsula),
4Z 42	nowever, that are not currently protected and could be affected by future
40	development activities (USF w 5 2002).

1 Cumulative impacts on Yadon's piperia that would occur as a result of other 2 projects include: 3 potential future residential development of the existing lot in Area F-1; 4 potential future residential development of the existing lots in Area J; 5 potential future subdivision of Area Y, which likely contains substantial 6 populations of Yadon's piperia (this area is adjacent to Preservation Area 7 POR and mapping of Yadon's piperia in POR shows an extensive population 8 that continues up to the edge of Area Y and likely within Area Y); and 9 other development in the Del Monte Forest, Monterey Peninsula, and 10 beyond. 11 While applicant-proposed preservation, transplantation, enhancement, and 12 resource management would reduce the level of project-related impact to 13 Yadon's piperia, the project, as proposed, would still contribute to substantial 14 cumulative adverse impacts for the following reasons: 15 The Proposed Project would remove a substantial amount of habitat, a 16 number of individual plants and fragment one of the two largest known 17 occurrences of this species (at the Proposed Golf Course). The result would 18 be the creation of smaller occurrences that could be more difficult to manage 19 and more vulnerable to extirpation. As described above, the occurrence at the 20 Proposed Golf Course is presently considered important to the recovery of 21 the species. 22 The Proposed Project would reduce the total known population by about 23 25%. On an acreage basis, the loss of an estimated 34 acres would represent 24 about 10% of the estimated total known distribution of about 355 acres. 25 Although the applicant has proposed to dedicate substantial preservation 26 areas containing large occupied Yadon's piperia habitat and populations this 27 preservation alone cannot offset the substantial losses of existing 28 populations, particularly at the Proposed Golf Course, and does not provide 29 sufficient preservation to assure the likely recovery of this species. 30 As noted above, other potential projects may also result in significant loss of 31 Yadon's piperia, both in terms of direct losses as well as indirect impacts. 32 The project will contribute considerably to these cumulative impacts. 33 For these reasons, the project would contribute considerably to cumulative 34 impacts. 35 Implementation of a comprehensive suite of avoidance, minimization, 36 preservation, transplantation, enhancement, adaptive management and resource 37 management measures for both Monterey pine forest (see the Draft EIR) and for 38 Yadon's piperia (see Chapter P2 in this document) would substantially reduce the 39 level of project-related contribution to cumulative impacts on Yadon's piperia. 40 Taking into account the applicant's proposal and the comprehensive suite of 41 required mitigation measures described above, the County does not consider that

1 2 3	the mitigated project would ultimately contribute considerably to a cumulative impact and thus considers the impacts to Yadon's piperia to be mitigated to a <i>less than significant level</i> .
4	Traffic on Regional Monterey County Highways
5 6	The traffic impacts analysis in this section uses cumulative plus project conditions for Monterey County regional highways.
7 8 9 10	The cumulative analysis of regional highway impacts focused on the primary highways that allow for regional transit through Monterey County. These highways are shown on Figure P4-1 in Chapter P4, "Transportation and Circulation" and include:
11 12	 Highway 1, from the Santa Cruz County line to the San Luis Obispo County line.
13	 Highway 68, between Monterey and Salinas
14 15	 Highway 101, from the San Benito County line to the San Luis Obispo County line
16	 Highway 156, from Highway 1 to Highway 101
17 18 19	As noted above, project impacts on Holman Highway/68 from Highway 1 to Pacific Grove were analyzed in the Draft EIR and that analysis is not revised in this document.
20 21 22 23 24 25	Other local highways such as Highway 146, 183, 218 were initially considered for this analysis. However, these highways in general do not provide direct distribution routes for regional traffic traveling to and from Pebble Beach. Thus while the project may contribute some occasional daily trips, the peak hour contributions are likely to be limited and sporadic and these highways were not carried forward into the impact analysis
26 27 28 29 30 31 32	The cumulative conditions for the regional highways used in this analysis are based on prior work conducted for TAMC in development of a proposal for a regional impact fee, Caltrans in the development of Project Study Reports for various improvements, Higgins & Associates for prior traffic analysis conducted within Monterey County, the traffic study conducted by Fehr & Peers for this project in 2002, and the sources cited in the Draft EIR. Data sources are identified in Table P7-3.
33 34 35 36 37	Cumulative volumes were identified from <i>The Nexus Study for a Regional</i> <i>Development Impact Fee</i> (DKS 2004) prepared for TAMC with the exceptions noted in Table P7-3. TAMC cumulative volumes are for 2025 and are based on using the existing general plans for the County and the incorporated cities. Other cumulative volumes are based on similar projections of future growth
38 39	Impact TC-B3 (C). Under cumulative plus project conditions, the Proposed Project would add traffic to regional Monterey County highways that would

Table P7-3	Cumulative Conditions and P	roject Contributio	ns to Traffi	c on Regi	onal M	onterey Coun	ty Highways ¹				
	Intersection	Туре	LOS	V/C Ratio	LOS	V/C Ratio/LOS	Cumulative Impact	Significant Impact? ⁹	Pro Contr	oject ibution	Considerable?
			Standard	Basel	ine	Cum	ulative w/ Pro	oject			
Highway 1	At Carpenter Road	Intersection	C/D	1.032	D	1.139 (E)	10%	Yes	0.	3%	Yes
Highway 1	At Ocean Ave.	Intersection	C/D	0.963	С	1.067 (D)	11%	Yes	0.	7%	Yes
Highway 1	At Carmel Valley Road	Intersection	C/D	0.933	С	1.029 (D)	10%	Yes	0.	3%	Yes
Highway 1	At Rio Road	Intersection	C/D	0.801	D	0.884 (D)	10%	Yes	0.	4%	Yes
	Road Segment	Туре	LOS	PM Peak	LOS	Cumulative	Cumulative	Significant	PM	Contri-	Considerable?
						Increase	Impact	Impact?9	Peak ⁸	bution	
			Standard	Existi	ng	Cum	ulative w/ Pro	oject	Pro	oject	
Highway 1	Pebble Beach to Munras	5-Lane Highway	C/D	7,463	D	962	15%	Yes	88	1.4%	Yes
Highway 1	Munras to Fremont St.	4-Lane Highway	C/D	4,199	F	572	16%	Yes	46	1.3%	Yes
Highway 1	Highway 68 East/Fremont to Casa Verde	4-Lane Highway	C/D	4,659	F	1,134	32%	Yes	19	0.5%	Yes
Highway 1	Del Monte Ave. to Fremont Bl.	4-Lane Highway	C/D	6,582	F	2,870	77%	Yes	16	0.4%	Yes
Highway 1	Fremont BI. to Imjin Pkwy.	6-Lane Highway	C/D	7,341	F	3,462	89%	Yes	16	0.4%	Yes
Highway 1	North of Highway 156 ²	2-Lane Highway	C/D	2,986	F	117	4%	Yes	1	0.0%	Yes
Highway 68	Near City of Monterey ³	2-Lane Highway	C/D	3,236	F	597	23%	Yes	8	0.3%	Yes
Highway 68	East of Laguna Seca ⁴	2-Lane Highway	C/D	4,762	F	759	19%	Yes	4	0.1%	Yes
Highway 101	South of Salinas ⁵	4-Lane Highway	C/D	4,228	F	615	17%	Yes	0	0.0%	No
Highway 101	North of Highway 156 6	4-Lane Expressway	C/D	3,251	E	882	37%	Yes	9	0.4%	Yes
Highway 101/156	Interchange	Interchange	C/D	2,948	F	682	30%	Yes	9	0.4%	Yes
Highway 156	Between Highway 1 and Highway 101	2-Lane Highway]								
Notes:											

1. Cumulative traffic volumes from Nexus Study for a Regional Development Impact Fee, DKS Associates, May 14, 2004 except for SR1/Carmel to Pebble Beach and SR1/Pebble Beach to Munras. Nexus study average daily traffic converted to PM peak hour volumes through assumption that PM peak hour volume is 10% of daily traffic. V/C Ratios and LOS for SR1/Carmel to Pebble Beach from Fehr & Peers Transportation Analysis for the Del Monte Forest Preservation and Development Plan, December 2002. Volumes for the SR1/Pebble Beach to Munras from City of Monterey General Plan Update Traffic Study, Higgins Associates, April 2004 and LOS for this segment based upon daily volume.

2. Volume and level of service reflect conditions between Merritt Street (Hwy. 183) and Potrero Road.

3. Volume and level of service reflect conditions between Josselyn Canyon Road and Highway 218.

4. Volume and level of service reflect conditions between Laureles Grade Road and the Toro Park neighborhood.

5. Volume and level of service reflect conditions between Fifth Street and the Soledad Prison.

6. Volumes and level of service reflect conditions between Echo Valley Road and Monterey/San Benito County Line.

7. Volumes and level of service reflect conditions between Castroville Boulevard and Highway 101.

8. Project PM traffic volumes on segments from letter to D. Messenger, "Pebble Beach FEIR Comments", Fehr & Peers Transportation Consultants, August 9, 2004, plus additional e-mail correspondence with Fehr & Peers Traffic Consultants and Fehr & Peers Transportation Analysis for the Del Monte Forest Preservation and Development Plan, December 2002.

9. Significance analysis based upon Monterey County Thresholds of Significance, whereby the following would constitute a significant impact: a. the addition of 1 trip to a segment operating at LOS F or the addition of enough trips to cause a 1% change in the volume-to-capacity ratio of a segment operating at LOS D or E.

1 2 3	contribute to deficient operations and failed operations. This is a considerable contribution to a significant cumulative impact that can be mitigated to a less-than-significant level with mitigation.
4 5 6 7 8	The methodology described in Chapter P4, "Transportation and Circulation" was used to analyze cumulative impacts. The results of the analysis are presented in Table P7-3. More detailed calculations are presented in Appendix B.5. The section below discusses the cumulative impacts identified by highway and segment.
9 10 11 12 13 14 15 16 17 18	Highway 1 south of Pebble Beach . Intersections along Highway 1 from Pebble Beach (Highway 68/17-mile Drive) to south of the Carmel River Bridge currently have acceptable and deficient operations (LOS C and D) depending on location. Under cumulative plus project conditions, cumulative traffic would be added to these intersections that would cause peak hour operations to decline to LOS D and E. Based on the significance criteria, this is considered a <i>significant</i> cumulative impact and the project's contribution is considerable. Mitigation is identified below to make a fair share contribution to the Highway 1 Widening Project in Carmel to reduce the contribution of the project to this cumulative impact to <i>less than significant</i> .
19 20 21 22 23 24 25 26 27 28 29 30 31	Highway 1 north of Pebble Beach. Segments of Highway 1 north of Pebble Beach vary in their current level of service between LOS C and LOS F. Under cumulative plus project conditions, cumulative traffic would be added to Highway 1 segments that would cause peak hour operations to decline from LOS D to LOS E between Munras and Fremont St. Under cumulative plus project conditions, cumulative traffic would be added to failing operations on Highway 1 between Highway 68 East/Fremont and Casa Verde, Del Monte Avenue and Fremont Boulevard, Fremont Boulevard and Imjin Parkway and north of Highway 156. Based on the significance criteria, this is considered a <i>significant</i> cumulative impact and the project's contribution is considerable. Mitigation is identified below to make a fair share contribution to the Highway 1 Sand City Widening and Interchange Improvements Project to reduce the contribution of the project to this cumulative impact to <i>less than significant</i> .
32 33 34 35 36 37 38 39 40 41 42 43 44 45	Highway 68 between Monterey and Salinas. Segments of Highway 68 between Monterey and Salinas vary in their current level of service with a number of segments with failed operations (LOS F). Under cumulative plus project conditions, cumulative traffic would be added to failing operations between Josselyn Canyon Road and Highway 218, York Road and Laureles Grade Road, and Laureles Grade Road and the Toro Park neighborhood. Based on the significance criteria, this is considered a <i>significant</i> cumulative impact and the project's contribution is considerable. Mitigation is identified below to make a fair share contribution to a suite of improvements to Highway 68 between Monterey and Salinas. This suite is described further in tables in Appendix B.5. Many of the improvements included in the mitigation suite have been identified by the Highway 68 Improvement Advisory Committee. The fair-share contribution is considered to reduce the contribution of the project to this cumulative impact to <i>less than significant</i> .

1 2 3 4 5 6 7 8 9	Highway 101 south of Salinas . As shown in Table P4-1 in Chapter P4, "Transportation and Circulation", when running the TAMC model, no trips were identified as contributed to Highway 101 south of Salinas. While the project will contribute daily trips to Highway 101 south of Salinas and there likely will be sporadic peak hour transit southward, due to the limited model results, it is considered that no critical contribution during peak hour would result. Although some of the southward segments of Highway 101 have deficient or failed operations (or will under cumulative conditions), this is considered an inconsiderable contribution to cumulative impacts.
10	Highway 101 from Salinas to Highway 156. The project-generated regional
10	traffic is most likely to head either northward via Highway 1 northward toward
12	Santa Cruz, via Highway 1, Highway 156, and Highway 101 toward San Jose or
12	southward via Highway 68 and Highway 101 toward San Luis Obisno County
13	The project may contribute some daily trips along Highway 101 between Salinas
15	and Highway 156 but the peak hour contribution is considered to be minimal and
16	sporadic. This is considered an inconsiderable contribution to cumulative
17	impacts.
18	Highway 101 north of Highway 156 . Segments along Highway 101 north of
19	Highway 156 to the San Benito County line have deficient operations (LOS D).
20	Under cumulative plus project conditions, cumulative traffic would be added to
21	these segments that would cause peak hour operations to decline to LOS E.
22	Based on the significance criteria, this is considered a <i>significant</i> cumulative
23	impact and the project's contribution is considerable. Mitigation is identified
24	below to make a fair share contribution to the Highway 101 Prunedale
25	Improvement Project (PIP) to reduce the contribution of the project to this
26	cumulative impact to less than significant.
27	Highway 101/156 Interchange and Highway 156. The Highway 101/Highway
28	156 interchange and portions of Highway 156 between Highway 101 and
29	Highway 1 currently have failed operations (LOS F). Under cumulative plus
30	project conditions, cumulative traffic would be added to these segments that
31	would worsen peak hour failed operations. Based on the significance criteria,
32	this is considered a significant cumulative impact and the project's contribution
33	is considerable. Mitigation is identified below to make a fair share contribution
34	to the Highway 101/156 Interchange and Highway 156 Widening Project to
35	reduce the project's contribution to a cumulative impact to <i>less than significant</i> .
36	Mitigation Measure TC-B3(C). The applicant shall be responsible for
37	payment of a fair-share traffic impact fee for various improvements to
38	Highway 1, Highway 68 (Salinas to Monterey), Highway 101, and Highway
39	156 or a regional traffic impact fee if one is later adopted by TAMC prior to
40	construction of the Proposed Project. This mitigation is described in Chapter
41	P4, "Transportation and Circulation. The fee amount is shown in Table P7-4.
42	This is the same as Table P4-2 in Chapter P4 of this document.

Improvement SR 1/Carmel Area Route 1 Widening	Total Cost ¹	2030 Pr	ojected ²	Cost/Trip ³	Project	Project Fees ⁵	Mitigates Project
SR 1/Carmel Area Route 1 Widening	\$08 600 500	(st/Trip [°] Project Project Fees Trips ⁴		Contribution to
SR 1/Carmel Area Route 1 Widening	¢09 600 500	(AADT)		(AADT)	(Daily)		
• · · ·	\$90,000,000	48,500		\$2,033	141	\$286,653	Highway 1/Carmel
Improvement	Total Cost ¹	2000 Existing ² 2025 Projected ²		Cost/Trip ³	Project Trips⁴	Project Fees⁵	Mitigates Project Contribution to
		(PM Pk Hr)	(PM Pk Hr)	(PM Pk Hr)	(PM Pk Hr)		
SR 1/Salinas Rd Interchange	\$36,025,786	2,995	3,608	\$9,985	1	\$9,985	Highway 1/NorthCounty
SR 1/Sand City Widening and Interchange Imp.	\$46,847,927	3,712	6,582	\$7,118	16	\$113,888	Highway 1/Seaside
SR 68 Operational Improvements ^{6,7}	\$11,997,000	4,003	4,762	\$2,519	8	\$20,152	Highway 68
SR 101 Prunedale Improvement Project (PIP)	\$193,699,000	5,657	10,864	\$17,829	9	\$160,461	Highway 101
SR 101/SR 156 Interchange & SR 156 Widening 4L	\$165,409,466	2,500	10,600	\$15,605	9	\$140,445	Highway 156
Subtota	Í					\$444,931	Other than SR1/Carmel
Discount for employee housing 6%	,)					\$26,696	
Revised Subtota	Ι					\$418,235	
TOTAL		\$704,888					
Notes: 1. Total Costs in 2003 dollars from <i>Nexus Study for a Regional Development Impact Fee</i> , DKS Associates, May 14, 2004 except Highway 68 and SR1/Carmel. Highway 68 costs estimated as noted in Note 7 below. SR1/Carmel cost from PSR, Alternative 2, Nov. 2002 dollars. Total Cost figures will be updated at the time fees are collected and the derived project fees will be correspondingly adjusted. 2. PM peak hour traffic volumes based upon volumes contained within <i>Nexus Study for a Regional Development Impact Fee</i> , DKS Associates, May 14, 2004 except for SR1/Carmel. PM peak hour volumes estimated at 10% of average daily traffic volume. Cumulative volumes for SR1/Carmel for 2030 area from Saavedra, Monterey County Public Works, July 25, 2002. 3. Cost per trip derived by dividing the total cost for the improvement by the projected future traffic volume for the segment, except SR1/Carmel which is based on identified fee amount in the PSR (Dokken, 2001). 4. Project PM traffic volumes on segments from letter to D. Messenger, "Pebble Beach FEIR Comments", Fehr & Peers Transportation Consultants, August 9, 2004, plus additional e-mail correspondence with Fehr & Peers Traffic Consultants. Highway 1/Carmel daily trips from Draft EIR. 5. Payment of these fees would be in lieu of the proposed TAMC Regional Impact Fee. If the regional fee is adopted prior to the approval of this project, the project applicant would instead be responsible for its share of the regional fee, instead of the above fees. 6. Hwy. 68 volumes are total PM peak hour at between Laureles Grade Road and the Toro Park neighborhood, per the TAMC Nexus study cited above. 7. Fee for Hwy. 68 is based using methodology for previous project outside of the Highway 68 corridor basing estimates on							
the DMF/PDP is not in the Hwy. 68 corridor. Thus improvements to the corridor, rather than a flat fee	s the indirect effe e per unit of hom	ect of DMF/PDP is nes. (See Table B.	better estimated b 5-4 in Appendix B.	y estimating fai 5).	r-share cost of	f the suite of Ac	tion Plan

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Long-Term Increase in Noise

The noise impact zone for cumulative development is the Del Monte Forest. The noise analysis used the cumulative traffic projections for traffic noise. The analysis of other impacts used the cumulative projects noted in Chapter 4.4 of the Draft EIR, which have not been changed in this document.

A. Long-Term Increases in Noise

Impact NOISE-A1 (C). Cumulative with project traffic noise would not result in exposure of persons to noise levels in excess of standards established in the County's "Land Use Compatibility for Community Noise" chart and/or expose noise-sensitive uses to a significant change in noise due with the exception of one noise source. The contribution of the one noise source can be reduced to a less than significant with mitigation identified for direct effects.

14As discussed in Chapter P5 in this document and Chapter 3.9 in the Draft EIR,15operational noise from the proposed project is not expected to exceed standards16found in the County's land use compatibility chart nor result in significant17increases in outdoor noise levels for sensitive land uses, with the exception of18ventilation fan noise discussed below.

19Bristol Curve20The results of the noise analysis (see Chapter P4 in this document) identified that21cumulative noise levels for residences along Bristol Curve are within the22acceptable range established in the County's General Plan for residential use,23with the revised realignment of Stevenson Drive. Thus, the Proposed Project's24contribution to cumulative traffic noise impacts along Bristol Curve is considered25*less than significant.*

26Ventilation Fans27Noise impacts of ventilator fan operation at the underground parking structures at28the Lodge at Pebble Beach and the Inn at Spanish Bay can be mitigated by29Mitigation Measure NOISE-A1 described in Chapter P4 in this document. As no30other cumulative development has been identified in the immediate vicinity of31the Inn or the Lodge, with mitigation, ventilator fan noise would not contribute32considerably to a cumulative impact.