SECTION 5
CUMULATIVE IMPACTS

5.1 Cumulative Impacts

Section 15130 of the CEQA Guidelines requires consideration of cumulative impacts within an EIR. Cumulative impacts are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment, which results from the projects when added to other closely related projects. In identifying projects which may contribute to cumulative impacts, the CEQA Guidelines allow the use of a specific list of past, present, and reasonably anticipated future projects, providing related or cumulative impacts, including those that are outside the control of the lead agency. The CEQA Guidelines also allow a summary of projections contained in an adopted General Plan or related planning document, which is designed to evaluate regional or area-wide conditions.

The following section relies on an evaluation of the impacts generated from the implementation of the September Ranch project when considered in conjunction with development forecasts based on the buildout of the County's General Plan, except in those instances where more specific information regarding the relevant attributes of reasonably foreseeable future activities was available.

The Carmel Valley Master Plan (CVMP) has established a method of managing growth within the planning area by establishing a maximum number of lots, which may be created on an annual basis. Additionally, the CVMP has established a 20-year total of 1,310 existing and newly created lots. These include 572 existing lots of record as of December 9, 1986 and 738 new lots to be created subject to an allocation and subdivision evaluation system. The CVMP provides for a phasing system tied to the land subdivision process in which development will be subject to an allocation system. The average annual rate of allocation is limited to 37 lots (738 lots/20 years). Subdivisions may be approved for up to the maximum number of lots for the life of the tentative map. However, as a general policy, no more than 25 lots per year may be created in any one subdivision. It is up to the Board of Supervisors' discretion to authorize additional units per subdivision. Lots or condominiums created and designated for low- and moderate-income individuals are exempt from the annual allocation system, but will be subtracted from the 20-year quota.

As described in this Draft REIR and herein, subdivisions approved under the foregoing plans are subject to various policies related to resource conservation. For example, subdivisions approved within Monterey County and under the CVMP must comply with policies that limit the potential for net increases in water use, which in turn affects the reliability of future demand estimates.

In accordance with Section 15130(b) of the CEQA Guidelines, "the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other project contribute rather than the attributes of other projects which do not contribute to the cumulative impact." The cumulative impact discussion is

organized by each of the environmental issues evaluated in Sections 4.1 through 4.13 of this Draft REIR.

5.1.1 Cumulative Impact Analysis

Water Supply and Availability

As described in Section 4.3 and the Hydrogeologic Report, the proposed project is forecasted to have a water demand of 57.21 AFY at buildout, which may from time to time result in a maximum potential reduction in recharge to the CVA of approximately 12 AFA and a corresponding maximum potential reduction in flow in the Carmel River of 0.034 cfs. Based on the analysis provided in Section 4.3, Water Supply, the proposed project does not result in a considerable contribution to cumulative effect. This following section analyzes the extent to which, as the project area experiences growth, the proposed project plus future demand for water would cumulatively reduce water availability, and the significance thereof. For purposes of water resources, as described in Section 4.3, Water Supply, the relevant area for analysis is AQ3 of the Carmel Valley Aquifer and that portion of the Carmel River downstream from the proposed project. CVA subunit AQ4 (downgradient of the AQ3 subunit) is also relevant, however, it should be noted any impact to that portion of the CVA is extremely attenuated and undiscernible due to the small quantity of maximum potential spillover that is reduced from the SRA to the CVA as a whole and that the water level impact is likely to diminish within 50 to 100 feet of the interface between the SRA and the CVA AQ3.

Section 4.3, Water Supply, describes past and present water demands in AQ3 as of 2002 as an estimated 2,705 AFA, within a subunit that holds approximately 16,927 AFA. (SWRCB, Decision 1632, T. 10, p. 31) The analysis below adds to this existing demand the proposed project plus reasonably foreseeable future demand, which is defined for purposes of cumulative water supply assessment as the following reasonably foreseeable projects. Additional information about these projects is available from the County of Monterey, Planning Department:

Table 5-1: Proposed Future Projects - Water Demands

Project Name	Description	Estimated Demand (AFY)
Dow	89 Affordable Housing Units, assumed to be 3 bedroom, 2 bath	17.9
Canada Woods	54 Residential Estate Lots w/ wastewater reclamation, 15 inclusionary units and commercial development	60.0
Potrero Subdivision	29 lots, assumed to be large estate lots	13.7
Mirabito Self Storage	70,000 Square Feet	0.30
Gamboa Assisted Living	78 beds (about 30,000 square feet)	4.80
	Total (AFY)	96.7
Source: Monterey County Planning and Building Inspection Department, February 2006.		

The projects above are those identified as within the County's planning pipeline for the Carmel Valley Master Plan area. For purposes of cumulative impact analysis, it is assumed that the projects

are located within AQ3. A project currently in the planning pipeline but not accounted for above is the Lombardo Land Group Standard Subdivision for 280 residential units including single family dwellings, town-homes and condominiums. The project/application is currently incomplete. The project is located in the lower Carmel Valley area on Carmel Valley Road, on the Rancho Canada Golf Course. According to the County, anticipated water use could be approximately 69 AFY (note the relatively lower projected water usage compared to the above projects is in part due to the different type of housing involved, *i.e.,* residential estates versus townhouses/condominiums). Historically the Rancho Canada golf course has been located on the site. Based on proposed removal of the golf course, this project would demonstrate an overall reduction in historic water use. This project is not included for purposes of cumulative impacts because it would result in a net *decrease* in water use, and because the project was not identified as of the date of the September Ranch REIR NOP; consequently, it would be inappropriate for this Draft REIR to rely on the decreased water use associated with this project for purposes of cumulative impact analysis.

In order to estimate the maximum potential cumulative impact to the CVA from September Ranch and the above-identified future projects, the difference, by month, in maximum potential spillover with and without the proposed September Ranch project was summed with the monthly pumping requirements for the future projects for both the below normal precipitation and normal precipitation case. The table below summarizes the two calculations and compares the net reduction in flow to the CVA from both the September Ranch and the future projects to the actual mean monthly flow in the Carmel River.

As shown in the table below, in the Below Normal Precipitation case, the maximum potential cumulative impact varies from 0.236 cfs to 0.089 cfs. During the months when the mean monthly flow in the Carmel River was zero, there would be no net impact to the river itself as the reduced flows would result in nominal decreases in the water table of the CVA (calculated at a *maximum* decrease of less than one millimeter, and generally expected to be less than that to zero). In the months where the mean monthly flow in the Carmel River was greater than zero, the net impact to the river could potentially be discerned at the gage. It should be noted that USGS provides information on each gage regarding the degree of accuracy of the records provided by any given station. Gage No. 11143250 is characterized as having "fair" records which means that 95 percent of the daily discharges are within 15 percent of the true value.

In addition, the values of the mean daily discharge recorded are shown to a number of significant figures based solely on the magnitude of the discharge value. For example, for discharges less than 1 cfs, the values are recorded to the nearest 0.01 cfs; for discharges between 1.0 and 10 cfs, the values are recorded to the nearest 0.1 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. USGS further caveats the gage information by indicating that the accuracy of the streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of record.

Table 5-2: Maximum Potential Impact to CVA from September Ranch and Proposed Future Projects for Below Normal and Normal Precipitation

Case 1: Below Normal Precipitation (WY 1987)												
Month	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**
Difference (Case 1b minus Case 1a) i.e. Maximum Potential Decrease in Flow (cfs) in Carmel River as a Result of September Ranch	0.000	-0.033	-0.033	-0.033	-0.033	-0.033	-0.033	-0.024	0.000	0.000	0.000	0.000
Additional Pumping From Potential Projects in CVA (cfs)	-0.236	-0.056	-0.056	-0.056	-0.056	-0.056	-0.056	-0.056	-0.236	-0.236	-0.236	-0.236
Maximum Potential Impact = Maximum Potential Spillover Decrease into CVA as a Result of September Ranch plus Additional Pumping from Potential Projects in CVA (cfs)	-0.236	-0.089	-0.089	-0.089	-0.089	-0.089	-0.089	-0.080	-0.236	-0.236	-0.236	-0.236
Monthly Mean Flow in the Carmel River (cfs)	0	0	0	0	0	36.11	60.88	18.42	0	0	0	0
Case 2: Normal Precipitation (WY 1996)												
Month	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**
Difference (Case 2b minus Case 2a) i.e. Maximum Potential Decrease in Flow (cfs) in Carmel River as a Result of September Ranch	0.000	-0.018	-0.033	-0.033	-0.037	-0.033	-0.034	-0.033	-0.003	0.000	0.000	0.000
Additional Pumping From Potential Projects in CVA (cfs)	-0.236	-0.056	-0.056	-0.056	-0.056	-0.056	-0.056	-0.052	-0.236	-0.236	-0.236	-0.236
Maximum Potential Impact = Maximum Potential Spillover Decrease into CVA as a Result of September Ranch plus Additional Pumping from Potential Projects in CVA	-0.236	-0.075	-0.089	-0.089	-0.093	-0.089	-0.090	-0.089	-0.230	-0.236	-0.236	-0.236
Monthly Mean Flow in the Carmel River (cfs)	3.70	5.81	24.74	87.06	569.31	345.45	135.40	58.32	17.08	6.50	0.05	0.00
Source: Kennedy/Jenks Consultants, February 2006.												

The potential range of reduction in flow from 0.236 cfs to 0.089 cfs in the below normal precipitation case is near the limits of the measurement accuracy of the gage, and thus may be imperceptible within the Carmel River.

In the normal precipitation case, the maximum potential cumulative impact varies from 0.236 cfs to 0.075 cfs. During normal precipitation years, there is some flow most times of the year, although the flows are quite low, with mean monthly flows that range from 0 cfs and 0.05 cfs in September and August 1996 to 6.5 cfs and 5.81 cfs in July 1996 and November 1995 respectively. In the months from June through October, pumping associated with future projects eclipses the contribution of the proposed September Ranch project. As with the below normal precipitation case, the maximum potential cumulative impact of 0.236 to 0.075 cfs is near the limits of the gage accuracy.

As noted in this Section, an alternate approach to cumulative impacts analysis is to evaluate the impacts associated with planned future growth. Here, as described above, the relevant planning document is the Carmel Valley Master Plan which authorizes 738 units after 1986. 123 units were built after 1986, and the proposed September Ranch project would add another 109 units, leaving 506 units that might be built. (Some of those 506 units are contained within the projects described above.) Of those 506 units, it is foreseeable that many will be approved based on a *net reduction* in water use, consistent with local policies for new development. Where higher pre-project uses are accounted for by existing demands (see Section 4.3, Water Supply), the water use associated with the new development would not be included in the baseline. Because it would be speculative to attempt to identify the percentage of those units that might ultimately be approved based on a net reduction in water use, and to identify which of the pre-project uses were already included in existing demand calculations (because there is no way to identify where future projects might be located), this Draft REIR does not rely on the planning approach to cumulative analysis of water resource-related impacts.

Based on the foregoing, the potential cumulative effects on water availability are identified as, at maximum, approximately 0.236 cfs to 0.075 cfs in normal years, and 0.236 cfs to 0.089 cfs in below normal years. With respect to basin health, groundwater levels, and water supply, these maximum potential reductions are less than significant, as the CVA would continue to recharge each year and these cumulative availability levels would not require any water user to forego pumping or seek out another source of supply due to decreased availability. With respect to flows in the Carmel River, it is noted that these reductions are near the limits of the accuracy of the gages. Moreover, for purposes of assessing the cumulative impacts of the proposed project, the relevant geographical area is the lower three miles of the Carmel River which is at baseline conditions nearly a dry stream during high-demand summer months. Thus, from a water supply perspective, cumulative reductions in flow in the Carmel River are also less-than-significant. These less-than-significant impacts may be further minimized by SWRCB Order No. WR 95-10 which requires a reduction in current pumping levels in the future. This variable is noted for informational purposes and was not used to assess the impacts herein.

Although the impact is less than significant, it is noted that consistent with CEQA's direction regarding cumulative impacts, 14 Cal. Code Regs. § 15130, the CVMP and Monterey County have adopted ordinances and other policies requiring proposed developments to meet criteria designed to avoid significant cumulative impacts to water supply and availability. Policies applicable to the proposed project are identified in Section 4.3, and as described therein the proposed project is

consistent with these policies. Future developments will also be required to demonstrate consistency with water resources policies as applicable on a case-by-case basis.

Mitigation Measures

No mitigation measures are required.

Biological Resources

The Carmel Valley corridor is largely open space and rural lands with pockets of residential and commercial development. The terrain varies from riparian along the Carmel River and drainages to level chaparral vegetation. Several stream corridors and drainage channels are also located within the corridor. All of these resources provide habitat for wildlife. Golden eagles as well as other birds of prey are known to utilize the valley for hunting and nesting. The introduction and/or expansion of residential and commercial growth within the project area will result in a cumulative reduction in wildlife habitat and native vegetation. In addition, wildlife mobility throughout Carmel Valley and adjacent open space lands could be affected unless corridors are provided to connect established open space lands. State law (e.g., CEQA) requires that development proposals be evaluated by the County for site-specific impacts and appropriate mitigation measures employed to reduce these impacts to the maximum extent feasible. The September Ranch project will result in retaining approximately 729 of the 891-acre site as open space, including lands contingent with the Jack Peak County Park.

Development of the September Ranch project in conjunction with other cumulative projects will result in impacts to the Monterey pine forest and the coast live oak forest. The project's Forest Management Plan includes mitigation, which requires that lost acreage of Monterey pines and coast live oak be replaced at a ratio of 3 acres for every 1 acre lost. In addition, lost trees are to be replaced at a 1:1 ratio. Because of these measures, the proposed project would not contribute to a net loss of Monterey pines or coast live oak forests.

The project's retention of open space, mitigation of individual impacts to a less than significant level, and the fact that cumulative development will be subject to environmental review pursuant to CEQA, no significant cumulative biological resources impact would occur from implementation of the September Ranch Subdivision project.

As described in Section 4.3 and 4.9 of this DREIR, and above, water demand from the proposed project may result in a *maximum* potential flow reduction in the Carmel River of up to 0.034 cfs, anticipated to be less under most if not all conditions due to attenuation from the SRA-CVA interface and other factors. Likewise, the maximum potential decrease in water table below the River, if any, is estimated at less than 1 millimeter, if any decrease occurs. This DREIR and consulting hydrologists and biologists concur that the maximum potential reduction in flow resulting from the proposed project is essentially imperceptible within the River. Accordingly, the proposed project will not adversely impact steelhead, red-legged frogs, riparian vegetation or other resources dependent on River flow. Because the proposed project will not result in an incremental impact or make a considerable contribution to a cumulative effect, there would likewise be no cumulative impact to biological resources. (14 Cal. Code Regs. § 15130.)

Although not relied on for purposes of the DREIR impact analysis, the proposed project is anticipated to provide additional wastewater flows to the Carmel Area Wastewater District which may be treated

under tertiary standards and used to supplement freshwater flows to the Carmel Lagoon, thereby providing a benefit to steelhead and other biological resources.

Moreover, although there is no cumulative impact and thus mitigation is not required, it is noted that Monterey County and the CVMP currently impose policies requiring proposed developments in the potentially affected area to meet criteria designed to avoid significant cumulative impacts to water supply and availability. Policies applicable to the proposed project are identified in Section 4.3, and as described therein the proposed project is consistent with these policies. Future developments will also be required to demonstrate consistency with water resources policies as applicable on a case-by-case basis.

Mitigation Measures

No mitigation measures are required