

CHAPTER 9.0 GROWTH-INDUCING IMPACTS AND CUMULATIVE IMPACTS

9.1 GROWTH-INDUCING IMPACTS

9.1.1 INTRODUCTION

According to Section 1502.16 of the CEQ NEPA Regulations, an EIS is required to include discussions of both direct and indirect effects. Furthermore, Section 1508.8 of these regulations states that “effects” to be addressed include:

- (a) *Direct effects, which are caused by the action and occur at the same time and place.*
- (b) *Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and other related effects on air and water and other natural systems, including ecosystems.*

The purpose of the following analysis is to determine if the proposed action/project (i.e., the proposed permitting procedures) would encourage substantial economic or population growth, either directly or indirectly. Generally, growth is induced by lowering or removing barriers to growth, or by creating an amenity or facility that attracts new population or economic activity.

Growth inducement can be defined as the relationship between the proposed project and growth within the surrounding area. This relationship is often difficult to establish with any degree of precision and cannot be measured on a numerical scale because there are many social, economic, and political factors associated with the rate and location of development. This relationship is sometimes looked at as either one of facilitating planned growth or inducing unplanned growth.

A project can remove infrastructure constraints, provide access, or eliminate other constraints on development, and thereby encourage growth that has already been approved and anticipated through the General Plan process. This planned growth would be reflected in land use plans that have been developed and approved with the underlying assumption that an adequate supporting infrastructure ultimately would be constructed. This can be described as accommodating or facilitating growth. A project can also remove infrastructure constraints, provide new access, or otherwise encourage growth that is not assumed in General Plans or growth projections by the affected local jurisdictions. This could include areas that are currently designated for open space, agricultural uses, or other similar non-urban land uses. In such a case, the removal of infrastructure constraints or provision of access can trigger consideration of a change in land use designation to allow development at a higher level of intensity than originally anticipated.

Growth-inducing impacts may also be categorized as being either direct or indirect. Direct growth-inducing impacts occur when a project directly fosters growth. This may occur in a variety of ways, including, but not limited to, the construction of new homes and businesses and the extension of urban services, such as utilities and improved roads, to previously undeveloped areas. Indirect growth is induced by the demand for housing, goods, and services associated with a project.

There are many other factors that can affect the amount, location, and rate of growth in the region. These include the following:

- market demand for housing, employment, and commercial services;
- desirability of climate and living/working environment as reflected by market demand;
- strength of the local employment and commercial economy;
- availability of other roadway improvements (e.g., new and/or expanded arterial or highway capacity);
- availability of other services/infrastructure (e.g., wastewater treatment, water, schools, etc.; and
- land use and growth management policies of the counties and municipal jurisdictions.

9.1.2 SAMP STUDY AREA

As addressed in Chapter 4.1.11, Population, Housing, and Employment, the SAMP Study Area is within southeastern Orange County. It could be reasonably argued that the effects of the development that would be facilitated under the proposed permitting procedures would not extend beyond the SAMP boundaries because they would not apply to any project outside of the boundaries of the SAMP Study Area. Additionally, the proposed permitting procedures would only authorize discharge of dredged or fill material into Waters of the U.S. The proposed permitting procedures would not entail granting any local land use authority or approval. At the same time, approval of the proposed permitting procedures are part of a causal chain of governmental approvals that would enable the proposed permittees to undertake development activities otherwise authorized by local government approvals.

Accordingly, this chapter addresses potential growth-inducing effects at two scales: (a) potential direct and indirect effects of the proposed permitting procedures within the SAMP Study Area; and (b) potential direct and indirect effects of the proposed permitting procedures outside the SAMP Study Area. Within the SAMP Study Area, there are two categories of undeveloped private lands apart from RMV Planning Area that will be addressed in this chapter: (a) approximately 3,666 acres in the Foothill/Trabuco Specific Plan area, and (b) an additional approximately 494 acres in small landholdings. Outside the SAMP Study Area, potential growth-inducing impacts will be analyzed on a topical basis depending on the potential for impacts.

The SAMP Study Area is located predominately within Regional Statistical Area (RSA) 43 and a portion of RSA 40. In addition to looking at these two RSAs, this chapter looks at the potential growth-inducing impacts associated with: (a) specific projects, (b) Subregional Areas (SRA) 42, 43, and 55 in northwest San Diego County; and (c) the Elsinore and Southwest Planning Areas of western Riverside County. San Diego County borders the southern and eastern edges of the SAMP Study Area and Riverside County borders the SAMP Study Area on its eastern edge. This “growth inducement study area” is consistent with the boundaries evaluated as part of the GPA/ZC EIR 589 (Figure 4.1.11-1).

9.1.3 PATTERNS AND TRENDS

To understand the context in which potential growth inducing impacts of the proposed project may occur, it is helpful to review the historic and projected growth patterns of Orange, San Diego, and Riverside counties.

9.1.3.1 Orange County

Orange County has experienced significant growth in population over the past 40 years. Population in the County has increased from 216,200 in 1950 to slightly more than 2,864,000 in 2000. Concurrent with these substantial increases in population, the economic character of Orange County has dramatically changed over the past 50 years. The predominately rural/agricultural and residential economy of the 1950s has changed to a diversified commercial/industrial economy. Aviation/aerospace and other high technology industries, biomedical facilities, retail commercial, light manufacturing, administrative and financial services, and tourism have become major components of the economy.

In 1965, the employment to population ratio was 22 percent in Orange County. By 1980, the ratio increased to 40 percent. This ratio has subsequently increased to approximately 54 percent in 1990 and 53 percent in 2000. Not only has the proportion of jobs to residents increased, but it is also based on a dramatically larger population.

Future population is projected from assumptions regarding three major events: births, deaths, and migration. Historically, the growth in Orange County was predominately due to migration; however, now births contribute more residents. This trend is expected to continue. Migration patterns are changing as the level of migration declines. Previously, new residents came from other parts of California and the United States, while current trends indicate that the new residents are more likely to come from Asia or Latin America.

The Southern California Association of Governments (SCAG) has divided the County of Orange into ten RSAs for which data sets with population, housing, and employment projections have been developed. The SAMP Study Area is predominately within RSA 43, with a portion of it being within RSA 40. This area has large amounts of available land and many natural amenities. South Orange County has experienced, and will continue to experience, large increases in population, housing, and employment. According to OCP-2004, the population within the SAMP Study Area RSA 43 is projected to increase from 249,247 in 2000 to 372,086 in 2030, an increase of 49 percent. In RSA 40, the population is expected to increase 21 percent, from 290,163 to 351,254. For this same period, the Orange County is projected to experience a population increase of 24 percent. For housing in RSA 43, there would be a projected increase from 86,804 in 2000 to 121,902 in 2030, a 28 percent increase. There would be a nearly 10 percent increase within RSA 40 for this same period (from 124,573 to 136,662 units). In comparison, the County is projected to experience a 15 percent increase in this 30-year period. Lastly, employment in RSA 43 is projected to increase 91 percent from the 2000 count of 69,356 to 132,750 in 2030. The number of jobs in RSA 40 would increase 27 percent (122,211 to 155,691), similar to the county as a whole, which would also experience an approximately 27 percent increase.

9.1.3.2 San Diego County

San Diego County has experienced many of the same trends as Orange County. North San Diego County in particular has experienced substantial growth in population and change in economic character. Population in San Diego County has increased from 1,033,000 in 1960 to

2,813,833 in 2000. Northern San Diego County economic growth has experienced trends similar to Orange County's economy. The predominantly rural/agricultural and residential economy of the 1950s has changed to a well-diversified commercial/industrial economy. In 1970, the employment-to-population ratio was 32 percent in San Diego. By 1980 and 1990, the ratio increased to 41 and 48 percent, respectively. In 2000, the employment to population ratio increased to 49 percent.

For northern San Diego County, the SRAs nearest the SAMP Study Area are 43–Pendleton, 55–Fallbrook, and 42–Oceanside. SRA 43 is located in northwestern San Diego County and encompasses MCB Camp Pendleton. MCB Camp Pendleton covers over 250,000 acres and includes 17.5 miles of shoreline. It is the largest undeveloped portion of coastal area left in southern California. SRA 55 is located east of and inland from SRA 43 in northwestern San Diego County. SRA 55 covers the San Diego County portion of the 460,000-acre Cleveland National Forest, as well as the unincorporated areas of Fallbrook, Rainbow, and Bonsall. (The remaining areas of the Cleveland National Forest are located in Orange and Riverside counties.) SRA 42 is located south of SRA 43 on the western border of San Diego County and includes the City of Oceanside. Also included in SRA 42 are several pockets of unincorporated San Diego County.

The *SANDAG 2030 Cities/County Forecast* (SANDAG, 2002) provides population, housing, and employment projections through 2030. The projection forecast indicates that the population within SRA 55 is projected to increase from 43,952 in 2000, to 63,270 in 2030, an increase of 44 percent. SRA 42 is expected to increase from 151,545 to 205,857 during the same period, an increase of 36 percent. The SANDAG projections for SRA 43 (MCB Camp Pendleton) only shows a 2 percent increase (36,146 in 2000 to 37,030 in 2030); this minor change can be attributed to the relatively stable population of MCB Camp Pendleton. Countywide, the population is projected to increase from 2,813,833 in 2000 to 3,889,604 in 2030, an increase of 38 percent. SRAs 53 and 42 are anticipated to have similar increases in population to the county as a whole.

SRAs 43 and 55 have a large amount of vacant land. Because MCB Camp Pendleton encompasses all of SRA 43, development opportunities are exceptionally limited. SANDAG only anticipates the addition of 15 housing units between 2000 and 2030, and only two jobs during that same period. However, based on discussions with MCB Camp Pendleton (pers. comm. L Rannals, June 14, 2005), there is an anticipated increase between 500 and 700 housing units for married Marines being constructed through Private/Public Venture Housing by 2008. The amount of housing beyond 2008 is difficult to determine because the funding is done through Congressional appropriations. Though there may be additional housing built on the base, this would serve Marine Corps needs and would not facilitate growth beyond the base. The portion of SRA 55 nearest the SAMP Study Area site contains the Cleveland National Forest where development is also restricted. Despite the restriction in development within areas of the Cleveland National Forest, SRA 55 is projected to have a 40 percent increase in housing between 2000 and 2030, from 15,748 to 22,068. Additionally, a 68 percent increase in employment is projected for this area for the same period, with an increase from 11,774 to 19,748. However, because the Cleveland National Forest has no major roadways through which San Diego County residents can travel to gain access to Orange County, increases in population, housing, and employment in SRA 55 would have minimal interface with Orange County. However, SRA 42 has relatively easy access through MCB Camp Pendleton via I-5 to southern Orange County and the SAMP Study Area. This area is projected to have more than a 183 percent increase in housing units (55,193 in 2000 to 156,536 in 2030) and an 88 percent increase in employment (36,840 in 2000 to 69,437 in 2030).

Because of the projected increases in population, housing, and employment, SANDAG evaluated policies to slow growth within the region. Their report, entitled *Evaluation of Growth Slowing policies for the San Diego Region* (2001) quoted a study of the California Department of Housing and Community Development, which concluded that California “chronically under produces housing, especially in coastal markets.” It further noted that:

...low vacancy rates and price increases from 1980 to 2000 indicate a relative shortage of housing supply compared to demand. Also, the ratio of job and population growth to housing unit growth has increased, as relatively fewer housing units are built for each job created. Rapid levels of residential growth in Baja California and Southwestern Riverside County also support the concept of a shortage of housing in the San Diego region.

Because of historic trends, growth policies, and future projections in population, housing, and employment, and despite developable, vacant land in SRAs 43, 55, and 42, San Diego County is not expected to increase the rate of development within vacant lands beyond what is currently projected by the *SANDAG 2030 Cities/County Forecast*, with the exception of Camp Pendleton.

9.1.3.3 Riverside County

According to SCAG (2001), southern California has been growing eastward and is projected to continue to grow toward fringe areas. Riverside County has been a main recipient of this growth trend. The population in Riverside County increased from 660,000 in 1980 to 1.5 million in 2000 according to the U.S. Census Bureau (2000). By 2025, Riverside County’s population is expected to be 2.84 million. With the increase in residential real estate prices in Orange County, Riverside County has become more attractive for many new homebuyers. Many people have moved from Los Angeles and Orange counties to Riverside County for its lower cost of housing. The new residential real estate business has been booming in Riverside County due to the demand for new housing, and the past growth trend is projected to continue. Total employment in Riverside County is projected to increase from 446,000 jobs in 1997 to over 1 million jobs in 2025, a 4.4 percent annual increase. This compares to the five percent annual growth rate that occurred in the Riverside-San Bernardino Standard Metropolitan Statistical Area (SMSA) during the 1972 to 1999 period.

For land use and policy analysis, Riverside County is divided into 19 area plans. Area 19—Southwest Area Plan (SWAP), as its name implies, is located in the southwestern portion of Riverside County. Area 19 encompasses the incorporated cities of Murrieta and Temecula; the unincorporated communities of Glen Oaks Hills and Pauba/Wolf Valley, Pechanga Indian Reservation; and unincorporated areas near the Santa Rosa Plateau Ecological Area, French Valley, and the Cleveland National Forest. Area 19 is bound on the west by the Orange County and the Santa Ana Mountains; by San Diego County, the Santa Margarita Mountains, and the Agua Tibia range to the south; and by the Black Hills to the east. The Elsinore Area Plan is located northwest of Area 19 and includes the cities of Lake Elsinore and Canyon Lake, as well as the unincorporated areas of El Cariso, Alberhill, Sedeco Hills, Wildomar, Gavilan Hills, and Meadowbrook. The Temescal Wash, which drains into Lake Elsinore, is located between the Santa Ana Mountains to the west and the Gavilan Hills to the east. The City of Riverside’s Sphere of Influence extends into the Elsinore Area Plan. The Cleveland National Forest forms the western boundary of the area.

The *Riverside County Population and Employment Forecasts*¹ (Hoffman 2000), prepared for the *Riverside County General Plan Update* (County of Riverside 2002), provides population, household², and employment projections through the year 2020. The projection forecast indicates that the population within the SWAP will increase from 15,353 in 1994 to 79,656 in 2020, a 418.8 percent increase. The Elsinore Area Plan is projected to increase from 34,455 in 1994 to 72,067 in 2020, a 109.2 percent increase in population. Countywide, the population is projected to increase from 1,545,387 in 2000 to 2,874,277 in 2020, an increase of 86.0 percent.

The SWAP has large amounts of vacant land in both incorporated and unincorporated areas. According to the County of Riverside General Plan Southwest Area Plan (2003), approximately 89 percent of the Southwest planning area is devoted to open space, agricultural, and rural designations. The remaining 11 percent is devoted to a variety of urban uses with much of the development area focused in the cities of Temecula and Murrieta and in French Valley. According to the SWAP, "These Open Space, Agricultural, and Rural General Plan designations reflect the existing and intended long term land use patterns for these areas and help maintain the historic identity and character of the Southwest planning area." The SWAP states that significant watercourses in the valley are maintained in adopted and proposed specific plans through open space designations and a Land Use Plan Watercourse Overlay designation.

The Elsinore Area Plan has land use patterns similar to the SWAP; both areas have large areas of both incorporated and unincorporated land. Of the 126,307 acres within the Elsinore Area Plan, almost 67 percent, or 84,412 acres, of the area is designated by the Riverside County General Plan for open space or rural uses. There are no agricultural uses designated anywhere within the area. Approximately 11 percent, or 13,672 acres, are designated as community development.

9.1.4 EFFECTS OF THE PROPOSED PERMITTING PROCEDURES

The following evaluates the growth-inducing effects of the proposed permitting procedures in the context of the overall SAMP program, as well as the specific development projects (i.e., the RMV Proposed Project [Alternative B-12] and SMWD Proposed Project).

9.1.4.1 Overview of Potential Direct and Indirect Effects Within the SAMP Study Area with Regard to Undeveloped Private Lands

The proposed permitting procedures would not directly result in any development that would attract future growth because they would not provide any land use entitlements or regulatory approvals for future participants. As discussed below, the SAMP would also not result in the provision or extension of any infrastructure that would facilitate additional growth.

With regard to indirectly inducing growth, one issue is whether the SAMP, through its primary purpose (to provide a balance between reasonable economic development and aquatic resource conservation), would induce growth beyond that facilitated by the proposed permitting procedures because it would remove uncertainty associated with development permitting for

¹ The *Riverside County Population and Employment Forecasts* presents three sets of countywide projections, in order to test alternative scenarios for the Riverside County General Plan update. These projects are based in whole or in part on recent SCAG projections, WRCOG, and Coachella Valley Association of Governments (CVAG) projections and employment trend analysis. The projections presented in this section are for Scenario 1, which uses SCAG population and employment projections.

² The *Riverside County Population and Employment Forecasts* do not provide projections of the number of housing units; rather projections of the number of households are provided. According to the U.S. Census Bureau, "a household includes all of the people who occupy a housing unit" and a housing unit is "a house, an apartment, a mobile home, a group of rooms, or a single room...occupied as separate living quarters."

wetlands. In evaluating potential indirect growth, it is important to understand that the SAMP was undertaken because the region is under substantial development pressure as demonstrated by the discussion of growth trends.

Based on a GIS analysis and input from County of Orange staff (T. Neely., pers. com), areas where development may occur in the future are portions of the Foothill/Trabuco Specific Plan area (encompasses approximately 3,666 acres) and a further approximately 494 acres of land scattered throughout both unincorporated County jurisdiction and incorporated cities including 160 acres in the City of San Juan Capistrano and 14 acres in Live Oak Plaza (Figure 2-4). Landowners within these areas may identify potential projects in the future. It should be noted that these 494 acres do not represent all potentially available land within the SAMP Study Area, only those areas where development may affect natural resources. The amount and type of development for each of these areas are already governed by an existing program (e.g., the Foothill/Trabuco Specific Plan and the City of San Juan Capistrano General Plan) that would guide future development. This acreage is in addition to the 5,873 acres proposed for development within the RMV Planning Area and areas that would be disturbed for the construction of SMWD infrastructure.

USACE approval of the SAMP provisions addressing future LOP proposed permitting procedures for future applicants would only occur in the future following review for compliance with the USACE Section 404 (b)(1) Guidelines and would not alter the type of development entitlements or process for other entitlements (e.g., site development requirements, tract map approvals, and grading plans) in these areas. As indicated in Chapter 2.0, "Future participants have not identified potential projects and have yet to undergo pre-application review...and have yet to comply with the Section 404(b)(1) Guidelines." Therefore, because are no commitments are made to future participants (other than through the limited RGP permitting process) and any permitted activities are subject to extensive future discretionary review by the USACE, the approval of the proposed permitting procedures would not constitute a growth-inducing effect.

9.1.4.2 Potential Growth-Inducing Impacts Associated With the Proposed Permitting Procedures Outside the SAMP Study Area

GPA/ZC EIR 589 evaluated the potential growth-inducing impacts associated with proposed development. The following analysis has been taken from GPA/ZC EIR 589.

Housing and economic growth in the study area is directed by the general plans for the County of Orange and adjacent cities. The adjacent cities include Dana Point, Rancho Santa Margarita, San Clemente, Laguna Niguel, Mission Viejo, and San Juan Capistrano. Indirectly, the development in any of the three counties of the growth inducement study area, Orange, San Diego, and Riverside, whether the development is housing, commercial, or industrial development, has the potential to affect the housing or economic growth in other portions of the growth-inducement study area because some residents in these counties commute to jobs in Orange County, while some residents of Orange County commute to jobs in northern San Diego and western Riverside counties. The City of Oceanside in San Diego County and the cities of Temecula, Murrieta, and Lake Elsinore in Riverside County are the jurisdictions that are most likely to be affected by housing or economic growth.

To assess potential growth-inducing impacts of the development proposed to be subject to the proposed permitting procedures, the development status of the growth inducement study area was evaluated. The area was divided into three major categories: (1) existing land uses; (2) planned land uses; and (3) unplanned lands. Existing land uses are those areas that are developed or dedicated as urban open space/recreational, public facilities, or transportation

uses. Planned land uses are undeveloped areas that are designated for urban development in general plans and have a zoning designation for specific urban uses. These areas may also have entitlement through either an approved specific plan or tentative tract map. Unplanned land areas are those lands that are not designated for urban uses or permanent open space, but are designated with land uses that could be considered transitional or holding designations (e.g., agricultural). Overall, the potential for growth-inducing impacts would be the greatest on the unplanned land uses.

Also, in assessing potential growth-inducing impacts of the proposed permitting procedures, the geographic range or extent of any possible growth-inducing impacts was evaluated. In general, the potential for growth-inducing impacts would be the greatest on land within Orange County. In San Diego County, the MCB Camp Pendleton and the Cleveland National Forest are natural boundaries that would discourage growth induced by the proposed permitting procedures. Although I-5 traverses MCB Camp Pendleton and some residents of San Diego County communities work in Orange County (and vice versa), the size of MCB Camp Pendleton is still a major impediment to commuters. Additionally, there are no opportunities to construct additional roadways that would directly connect to development areas in San Diego County, thereby facilitating growth to the south. Similarly, the Cleveland National Forest has no major roadways to San Diego County that a commuter could use and there are no plans, either real or insubstantial, to construct roads through the Cleveland National Forest to San Diego County. With the Metrolink, commuting to northern San Diego County from Orange County, and vice versa, is easier. However, high cost and commute time still prevents many commuters from taking advantage of this option. Lastly, according to SANDAG in its *Evaluation of Growth Slowing Policies for the San Diego Region* (2001), the entire San Diego region has and will continue to face a limited housing supply. The report notes that the region's housing growth did not keep pace with its job and population growth. As a result, San Diego County and its cities would be unlikely to promote or facilitate enough growth, both housing and economic, to serve not only its current and projected population, but also that of Orange County. As a result, development allowed by the proposed permitting procedures is not expected to have growth-inducing impacts in northern San Diego County.

Similarly, while western Riverside County does border Orange County to the northeast of the SAMP Study Area, commuting to southern Orange County from there (or the reverse commute) can be long and difficult due to the mountain range (Santa Ana Mountains), the long distance, amount of vehicular traffic, and lack of major highways. With the exception of Ortega Highway (SR-74), which is near capacity during commute hours and has safety problems, there are no other roads which commuters could use to travel easterly from southern Orange County to western Riverside County. All of these are obstacles to the inducement of housing or economic growth in western Riverside County. Additionally, Riverside County's General Plan Land Use Plan for both Area 19 and the Elsinore Area Plan generally reflects the predominantly rural character of the area by devoting approximately 80 percent of Area 19 and 67 percent of the Elsinore Area Plan to open space, agricultural, and rural designations. Only 18 percent of Area 19 and 11 percent of the Elsinore Area Plan are devoted to urban uses. While Riverside County has more unplanned land areas than either Orange or San Diego counties, current planning documents have placed limits on urban development by protecting the region's rural and agricultural areas. As a result, the proposed permitting procedures are unlikely to directly substantially induce housing or economic growth in western Riverside County.

Within Orange County, a number of factors would influence the location, intensity, and phasing of development. An adequate infrastructure base (i.e., water, sewer, drainage, fire protection, and schools) is necessary for urban development. If any of these services cannot be provided, development would be restricted or substantially slowed. Development allowed by the proposed

permitting procedures would provide a sufficient tie-in to existing utility systems to accommodate the demands of the RMV Proposed Project at full buildout. However, the RMV Proposed Project does not propose the construction of surplus capacity that would encourage urban development beyond what is proposed. While development allowed by the proposed permitting procedures does provide economic growth in an area currently undeveloped, it would not result in substantial growth on surrounding lands. Most of the surrounding areas are either already developed or are within public ownership, such as MCB Camp Pendleton, Caspers Wilderness Park, and the Cleveland National Forest. The surrounding developed areas are not of the age or nature where redevelopment would be likely in response to the RMV Proposed Project. The public ownership would eliminate the potential of future urban development. As a result, the proposed permitting procedures are not expected to induce housing or economic growth within southern Orange County.

In summary, the proposed permitting procedures would not remove obstacles to growth in the surrounding counties or areas within Orange County, induce unplanned growth, encourage economic activities that would result in adverse impacts to the environment, or require the expansion of one or more public services to areas which were not already planned to receive such services. All growth resulting from the RMV Proposed Project would be limited to the growth planned as part of the project.

9.1.4.3 Santa Margarita Water District Proposed Project

Projects identified by SMWD include operation and maintenance of existing facilities and construction and subsequent operation and maintenance of future facilities. An overview of both types of projects (referred to as the SMWD Proposed Project) is presented in Chapter 2.0.

The operation and maintenance of existing facilities would not have growth-inducing impacts. These facilities have been designed to serve existing development. The SAMP would not be a factor in the ability of these facilities to accommodate additional development. If additional capacity were available, this would be true with or without the SAMP.

The key SMWD future facilities that may impact Waters of the U.S. in their initial construction, and then ongoing maintenance and operation, are the Gobernadora Multipurpose Basin and two of the proposed storage reservoirs (San Juan Creek East 3 Domestic Seasonal Water Storage Site and San Juan Creek East Non-Domestic Seasonal Water Storage Site). The other two proposed water reservoir sites, Upper Chiquita and Trampas Canyon would not impact Waters of the U.S.

The Gobernadora Multipurpose Basin is intended to respond to erosion and sedimentation along Gobernadora Creek, high storm flows, excessive surface and groundwater originating upstream, and high bacteria counts that currently degrade water quality. The Gobernadora Multipurpose Basin would provide water quality treatment and resource protection from existing development primarily in the community of Coto de Caza. With the exception of small amounts of new development permitted by the existing Coto de Caza Planned Community, the Basin would not allow either directly or indirectly new growth. The Basin project is proposed as a management measure to meet the recommendations contained in the Watershed Planning Principles. This facility would not be growth-inducing.

There are three water storage facilities proposed by SMWD to store domestic water for emergency use, two are to store domestic water for emergency use and one to store recycled water during the winter months when more supply is available and demands are low, then use the water during summer months when the demands are in excess of supply. The need for

these facilities was identified in the July 2003 report by Henry Miedema and Associates, titled *Future Seasonal and Emergency Water Storage Needs*. SMWD has adequate supplies to meet projected (2025) peak demand within SMWD. Therefore, storage is not required to serve existing and projected demand. However, there is concern about the reliability of imported water supply sources should there be temporary outages of the importation system. As a means of background, the Municipal Water District of Orange County prepared a *Phase I South County Water Reliability Study (WRS)* to address both system and supply reliability for south Orange County. The WRS evaluated the effects of a water importation pipeline outage or an outage of the Diemer Treatment Plant. The Miedema Study looked at the water needs for both existing and approved development, with and without the RMV Proposed Project (the study was conducted before the GPA/ZC Final EIR 589 was certified and the project was approved in 2004). The facilities are needed to allow the SMWD to be in a more secure position in case of outages. Although the facilities are required to provide service security for existing and approved development, the sizing would be a factor in determining if it would be considered growth-inducing. The Miedema Study identified a minimum of 1,200 acre-feet additional storage capacity for the domestic water storage requirements and a minimum of 2,800 acre-feet of additional storage for non-domestic water.

The proposed Upper Chiquita facility recommended in the Miedema Study would not meet the demand under the most catastrophic outage scenario addressed in the WRS. The Upper Chiquita site, which is being proposed for domestic water storage, would only provide 860 acre-feet. For domestic water storage, this facility would not induce growth beyond what is currently planned because it would not provide capacity beyond what is needed to serve currently existing and approved growth. This facility would not affect jurisdictional waters.

The San Juan Creek East 3 site is proposed for both domestic and non-domestic water storage facilities. The site is within the boundaries of the RMV Planning Area (Planning Area 4). With respect to the domestic water facility, it would have an estimated storage volume of 1,300 acre-feet. It may be argued that an increment of the facility, especially the San Juan Creek East 3 site which would meet the minimum requirements suggested by the Miedema Study, would be growth facilitating because it would serve already approved growth. It is possible that a site with capacity below the 1,200 acre-feet would be adequate without the future growth assumed for the RMV Proposed Project. However, it should also be noted, that the RMV Proposed Project would only provide 68 percent of the future growth assumed in regional planning documents. Given the limited ability for growth beyond what is provided for in the RMV Proposed Project and the fact that the larger of the two facilities would only meet the minimum requirements for seasonal and emergency storage, the potential for inducing growth beyond approved levels is limited as a result of these facilities.

With respect to non-domestic water storage, the San Juan Creek East 3 site would have an estimated storage volume of 4,600 acre-feet. Only the San Juan Creek East 3 non-domestic seasonal storage facility would meet the minimum storage capacity outlined in the Miedema Study.

The Trampas Canyon Pit Site is proposed as a non-domestic water facility with an estimated storage volume of 2,020 acre-feet. This is less than the 2,800 acre-feet identified as the minimum required level. It is within the RMV Planning Area (Planning Area 5).

As noted above, the San Juan Creek East 3 site would provide 4,600 acre-feet of storage, well beyond the minimum levels. Even with the excess capacity of the San Juan Creek East 3 site, it is unlikely that implementation of this facility would induce growth. Not only is there very limited capacity for induced growth (see discussion in subchapter 9.4.2), but also availability of recycled

non-domestic water is not a deciding factor on the location and amount of growth in an area. Therefore, even the San Juan Creek East 3 site would not be considered growth-inducing.

9.1.5 CONCLUSION

Based on the review of the proposed SAMP permitting procedures and the specific projects identified, the SAMP would not have growth-inducing impacts. Among other things, this conclusion takes into consideration the historical growth rates and trends, the level of future development that has been incorporated into local General Plans and regional growth projects, and natural constraints to development in the region.

9.2 CUMULATIVE IMPACTS

The evaluation of cumulative impacts generally means the consideration of the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (source: 40 CFR 1508.7)

To ensure the evaluation of cumulative impacts is comprehensive, the analysis considers not just specific projects that are currently being evaluated within the SAMP Study Area, but, where appropriate, the analysis considers development levels that are provided for in the adopted General Plans for the local jurisdictions. This approach is appropriate for certain topical areas, such as traffic, air quality, and noise, because it allows a comprehensive analysis consistent with growth projections even though a project design is not known at this time. For other topical areas, such as visual impacts, the potential impacts of future development would not be able to be determined without some level of concept design. Future projects would be required to assess their project-specific impacts, as well as cumulative impacts associated with their individual actions. The range of projects being considered is also broader for the NEPA Public Interest Issues because it is recognized that projects that may not involve the USACE would still contribute to cumulative impacts in non-wetland areas.

The emphasis of the cumulative impact analysis is focused on the contribution of those projects (i.e., RMV Proposed Project and the SMWD Proposed Project) that would actually be authorized by the SAMP for discharge or fill in Waters of the U.S., combined with other known projects or General Plan growth. While the proposed SAMP establishes a regulatory framework for implementing the Clean Water Act it should be remembered that the USACE does not have land use authority within the SAMP Study Area. Although impacts on resources other than wetlands are considered when determining a LEDPA, the regulation of other resources is outside of USACE's jurisdiction.

For the General Plan-level analysis, this evaluation looks at the land use designations outside the RMV Planning Area. While it is recognized that there will be numerous future small-scale projects, the majority of the potential larger-scale future developable acres are located in the City of San Juan Capistrano and the Foothill/Trabuco Specific Plan area. The RMV Proposed Project and the SMWD Proposed Project have been addressed as part of the SAMP. Therefore, these impacts are identified as project impacts and would not represent new cumulative impacts.

Specific projects that have been considered for potential cumulative impacts have been identified through several sources. In September and October 2003, as part of the GPA/ZC for

RMV Proposed Project, sources, such as www.CEQAnet.ca.gov, were used to identify projects that were being evaluated by agencies within south Orange County. This information was then sent to the jurisdictions with a request for confirmation that the list was comprehensive or, if it was found not to be comprehensive, with a request to identify projects that had not been included on the list. The jurisdictions contacted in September and October 2003 are listed in Table 9-1. Follow-up phone calls were made to obtain input. CDFG, the County of San Diego, the County of Riverside, and the cities of Laguna Niguel and Laguna Hills did not identify cumulative projects for consideration. While an extensive list of projects was identified, not all the cumulative projects identified for the GPA/ZC are applicable to the SAMP project because of: (1) their status (e.g., the distance of the project from the SAMP Study Area boundary; (2) the project identified in 2003 is no longer being pursued; (3) the limited scale of the project it would not contribute to cumulative impacts or the limited nature of the project; and (4) it has been completed and would not contribute to cumulative impacts. To update this listing developed as part of the GPA/ZC, key agencies were contacted by phone and www.CEQAnet.ca.gov was again used to identify projects that were being evaluated by agencies within south Orange County. Not all cities within the SAMP Study Area have relevant cumulative projects for the SAMP project. For example, as part of the GPA/ZC, the City of Rancho Santa Margarita identified the construction of a City Hall and Community Center at 22112 and 22232 El Paseo. The Initial Study/Negative Declaration for the project did not identify any significant impacts associated with these facilities. Given the limited scale of the project, the lack of impacts, and the status of the project (the project is complete), this project was not carried forward.

**TABLE 9-1
AGENCIES CONTACTED IN 2003 REGARDING CUMULATIVE PROJECTS**

Federal Agencies		
MCB Camp Pendleton	USACE	USFWS
State Agencies		
CDFG	Caltrans	
County and Regional		
Transportation Corridor Agencies	Orange County Fire Authority	San Diego
Riverside		
Cities		
San Juan Capistrano	San Clemente	Mission Viejo
Rancho Santa Margarita	Laguna Niguel	Laguna Hills
Irvine	Lake Forest	Dana Point
Utilities		
Irvine Ranch Water District	Santa Margarita Water District	
Source: BonTerra Consulting, May 2004		

The following provides a brief summary of the projects that have been identified as potential cumulative projects. The summary of the projects identifies impacts that are known or are anticipated to occur with implementation of each project listed. This information is based on completed environmental documents or based on discussions with the lead agency. Not all projects would contribute to significant cumulative impacts for each topical area. For example, not all projects would have impacts on agricultural and aggregate resources. The evaluation is done by topical area consistent with those topics addressed in this EIS. Additional topics may have been addressed in the individual project's environmental documentation but are not applicable to this EIS.

9.2.1 GENERAL PLAN-LEVEL

The OCP-2004 projections have been adopted by the County Board of Supervisors, the local jurisdictions, and the regional planning agencies (e.g., SCAG and AQMD) as the official growth projections for the region. These projections are recognized as the uniform data set for use in local planning applications. The long-range socioeconomic projects, which are the basis for the traffic, air quality, and noise analysis, reflect the anticipated long-term development levels for unincorporated Orange County as well as the cities³. In addition to this broad based analysis, there are several areas within the SAMP Study Area that have been identified as areas of potential development. For these areas, the local General Plans or Specific Plans have been considered to determine the potential cumulative impacts.

9.2.1.1 Foothill/Trabuco Specific Plan

The Foothill/Trabuco Specific Plan addresses approximately 6,500 acres in an area generally bound by the Silverado/Modjeska Specific Plan area and the Cleveland National Forest to the north, the City of Rancho Santa Margarita to the south, the City of Lake Forest to the west, and the City of Rancho Santa Margarita and the Cleveland National Forest to the east. Three planning districts were formed based on proximity and availability of infrastructure and differing development opportunities and constraints. All or a portion of the three districts are within the SAMP Study Area.

The Foothill/Trabuco Specific Plan provides for a mix of residential, commercial recreation, community commercial, public/quasi-public facilities, and open space. For residential uses, the gross densities within the Foothill/Trabuco Specific Plan range from less than one acre per unit to 20 acres per dwelling unit. Clustering is allowed with minimum lot sizes as small as 4,000 square feet in certain areas. The Specific Plan has a range of goals and objectives that address the preservation of streams, creeks, wildlife movement corridors, and other sensitive biotic resources. A maximum of 2,775 dwelling units are allowed within the Specific Plan area. A majority of the developable land within the Foothill/Trabuco Specific Plan area is within the SAMP Study Area. The Foothill/Trabuco Specific Plan area contains approximately 3,666 acres of undeveloped area within the SAMP Study Area.

The Foothill/Trabuco Specific Plan Program EIR 531 was prepared in 1991 by the County of Orange to address the potential impacts associated with the development within the Foothill/Trabuco Specific Plan area. The evaluation focused areawide impacts and general site development standards. The Program EIR was not intended to evaluate project-specific impacts of development with the Specific Plan boundaries. The following potential impacts were identified in the Final Program EIR as being associated with future development with the Foothill/Trabuco Specific Plan area. Individual projects within the Foothill/Trabuco Specific Plan that may impact Waters of the U.S. would also be subject to NEPA evaluation by the USACE.

- **Physical Processes and Conditions.** Unavoidable impacts to water quality were identified as a result of an increase in urban pollutants.

³ The traffic, air quality, and noise analysis were initiated prior to the adoption of the OCP-2004 data set. The technical studies used the OCP-2000M data set that was adopted at the time the studies were initiated. A sensitivity analysis was conducted to determine if there was substantial difference between the OCP-2000M and the OCP-2004 projections. Within the SAMP Study Area the projects were very similar. The differences reflect minor "clean ups," especially in built-out areas where densities are known. One difference is the horizon year. The OCP 2000M data set had a horizon year of 2025, whereas the OCP-2004 data set extends to 2030.

- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Loss of habitat, including riparian habitat, and impact to wildlife were found to be less than significant on a regional and area-wide scale, but significant on a local level.
- **Land Use.** Potential impacts associated with loss of rural character and land use compatibility.
- **Transportation and Circulation.** With buildout of the improvements assumed as part of the Foothill/Trabuco Specific Plan, the Foothill Circulation Phasing Plan and the Foothill Transportation Corridor (SR-241) long-range circulation impacts were reduced to a level of less than significant. The Foothill/Trabuco Specific Plan Program EIR identified potential significant interim transportation impacts (i.e., impacts prior to implementation of the above-stated improvements).
- **Air Quality.** Cumulative air quality impacts were identified as a significant impact.
- **Noise.** Development pursuant to the Foothill/Trabuco Specific Plan would result in substantial noise impacts. Implementation of the mitigation measures to reduce the exterior living area to the 60 dBA CNEL level would reduce this impact; however, cumulative noise impacts would result.
- **Visual Resources.** On an area-wide basis, visual impacts were found not to be significant with the implementation of the Specific Plan measures. There would be local impacts within the Specific Plan area.

Additionally, there are several specific projects within the Foothill/Trabuco Specific Plan area where separate environmental documentation has been prepared. These projects and the associated impacts are listed below under Specific Projects.

9.2.1.2 San Juan Capistrano General Plan

Within the SAMP Study Area, over 160 acres have been identified as developable in the City of San Juan Capistrano, in addition to smaller infill projects. A review of these areas indicates that development projects, such as Honeyman Ranch and San Juan Meadows, have been identified for a portion of these areas. Both of these projects and the anticipated impacts associated with their development are discussed below. Although the specific impacts associated with development of these areas cannot be determined without a development proposal, the nature of the impacts would likely be traffic, air quality, noise, the change in visual character, and the loss of habitat. Future environmental documentation would be required to assess specific impacts, including potential impacts to jurisdictional wetlands.

9.2.2 SPECIFIC PROJECTS

As previously indicated, the cumulative analysis is evaluating potential relevant cumulative impacts associated with specific projects that have been identified by other agencies with jurisdiction in the SAMP Study Area, as well as applicable projects identified through www.CEQAnet.ca.gov (June 14, 2005).

9.2.2.1 United States Fish and Wildlife Service/California Department of Fish and Game

NCCP/MSAA/HCP. As discussed in Chapter 2.0 of this EIS, the Southern Subregion NCCP/MSAA/HCP is a planning effort that is underway by USFWS and CDFG that addresses the majority of the SAMP Study Area. This program seeks to protect natural resources, while allowing compatible land uses and appropriate development and growth. The alternatives that have been formulated as part of the NCCP/MSAA/HCP are the same as those evaluated in this EIS. The impacts associated with development of the land uses would not represent new cumulative impacts.

9.2.2.2 Caltrans Projects

During the preparation of GPA/ZC Final EIR 589, Caltrans identified 15 potential cumulative projects where the environmental documentation has not been approved. The majority of the projects was ramp improvements and would be expected to have limited environmental impacts. The types of impact associated with projects of this nature are generally construction-related impacts (e.g., short-term air quality and traffic delays), noise, and possible land use impacts if acquisition is necessary. The projects that would have the highest likelihood of contributing to cumulative impacts associated with the SAMP are two projects related to improvements to Ortega Highway (SR-74), improvements to SR-241, SR-73, and SOCTIIP. SOCTIIP, as well as improvements to SR-241 and SR-73 are being processed in conjunction with the Transportation Corridor Agencies.

Ortega Highway/I-5 Interchange. This highway improvement project would modify the Ortega Highway/I-5 interchange ramp configuration (Project number 1 on Figure 9-1). The jurisdiction of the project is shared with the City of San Juan Capistrano. Conceptual studies are in progress; however, there is no City Capital Improvement Project funding and no Caltrans State Transportation Improvement Program funding approved for the improvements. Funding is committed for the design phase. Though the Project Study Report has not been finalized, conceptual alternatives for interchange improvements have been presented at public meetings. Alternatives range from the No Project Alternative, constructing a round-about, or realigning the interchange and Del Obispo Avenue.

At the Project Study Report phase of the project only a Preliminary Environmental Analysis Report, not full NEPA/CEQA documentation, is prepared. The Preliminary Environmental Analysis Report identifies feasible alternatives, anticipated type of impacts associated with a proposed project and order of magnitude of those impacts. It also recommends the type of environmental documentation required for the project. Preliminary assessment of the project indicates a potential impact to riparian habitat and possibly jurisdictional areas was identified because of a small drainage north of the interchange. It is anticipated that the type of document ultimately prepared would be dependent on which alternatives advance to the next level of analysis.

Ortega Highway Widening. This proposed project would widen Ortega Highway to four lanes from Antonio Parkway to the future SR-241 (Project number 2 on Figure 9-1). This is consistent with the OCTA Master Plan of Arterial Highways although it is identified as being a future study. It is not possible to estimate the extent of the impacts without concept design plans for Ortega Highway and a selected alignment for the SR-241. However, given the location of the roadway and the characteristics of the area immediately adjacent to the roadway, it is anticipated that there would be potential impacts to: agricultural lands, including Prime Farmland; biotic resources including sensitive habitat and species; landforms, due to the grading; cultural

resources; land use; and aesthetics. Given the proximity of the roadway to San Juan Creek there is the potential for wetland impacts associated with this project. For wetlands, the Clean Water Act requires impacts be reduced to no net loss regardless of how the permits are processed. The project would be subject to NEPA evaluation by the USACE.

Ortega Highway (Calle Entradero to La Pata) Improvements. This highway improvement, located in the City of San Juan Capistrano and unincorporated Orange County, would widen Ortega Highway to four lanes from Calle Entradero to approximately a quarter mile east of La Pata Avenue. The Project Report is on hold to provide for the development of additional design concepts. No construction money has been programmed. The current schedule projects the environmental document to be approved in late 2006. Anticipated impacts associated with the project would include potential effects on farmland, noise impacts, cultural resources, and land use and construction-related effects, such as short-term noise and air quality impacts and traffic delays during construction. The impacts associated with the segment of roadway within the limits of the RMV Proposed Project were evaluated as part of the GPA/ZC project.

SR-241 SOCTIIP. In May 2004, the Transportation Corridor Agencies, Caltrans, and FHWA released for public review a Draft EIS/SEIR for the South Orange County Transportation Infrastructure Improvement Program (SOCTIIP). The purpose of SOCTIIP is to evaluate regional circulation needs in south Orange County. The potential extension of SR-241 south to I-5 and the Orange/San Diego county border is one component of the SOCTIIP. The extension of SR-241 would traverse the RMV Planning Area. The SOCTIIP EIS/EIR evaluates six corridor alternatives for SR-241, each of which would consist of four mixed-flow lanes initially and six mixed-flow plus two HOV lanes ultimately. SOCTIIP includes one alternative to improve existing and master planned arterial highways, one alternative to widen I-5 from the County border north to the I-405 interchange, and two No Action Alternatives (Figure 2-5). The alternatives being evaluated in the SOCTIIP are described below.

- **Far East Corridor-West Alternative.** This toll road alternative would extend the existing SR-241 Toll Road south from Oso Parkway to connect with I-5 south near the Orange/San Diego County line in MCB Camp Pendleton. This alternative alignment would cross Ortega Highway approximately 5.2 miles inland of I-5 and would pass through the west side of the Donna O'Neill Land Conservancy. This is the alignment reflected on the County of Orange General Plan and Master Plan of Arterial Highways. At full buildout, this alternative would provide eight travel lanes: six mixed flow lanes and two high occupancy vehicle lanes.
- **Far East Corridor-Modified Alternative.** This toll road alternative would extend the existing SR-241 Toll Road south from Oso Parkway to connect with I-5 at the Orange/San Diego County line in MCB Camp Pendleton. This alternative alignment would cross Ortega Highway approximately 6.1 miles inland of I-5 and would pass through a portion of the east side of the Donna O'Neill Land Conservancy and the inland portion of the San Onofre State Beach Park. At full buildout, this alternative would provide eight travel lanes: six mixed flow lanes and two high occupancy vehicle lanes.
- **Central Corridor Alignment.** This toll road alternative would extend the existing SR-241 Toll Road south from Oso Parkway to connect to I-5 at Avenida Pico in the City of San Clemente. This alternative alignment would cross Ortega Highway approximately 2.8 miles inland of I-5 and 0.25 miles east of Antonio Parkway. This alignment would run east of San Juan Capistrano city limits, and then enters the City of San Clemente to parallel Avenida Pico before connecting to I-5. Implementation of this alternative would displace existing residences and pass through the Prima Deshecha Landfill. At full

buildout, the Central Corridor Alignment Alternative would provide eight travel lanes: six mixed flow lanes and two high occupancy vehicle lanes.

- **Central Corridor-Avenida La Pata Variation Alternative.** This toll road alternative would extend the existing SR-241 Toll Road south from Oso Parkway to Avenida La Pata in the City of San Clemente; it would not connect to I-5. Vehicles would use Avenida La Pata to reach I-5. This alternative alignment would cross Ortega Highway approximately 2.8 miles inland of I-5. This alternative would pass through the Prima Deshecha Landfill. At buildout, this toll road alternative would provide eight travel lanes: six mixed flow lanes and two high occupancy vehicle lanes.
- **Alignment 7 Corridor-Far East Crossover-Modified Alternative.** This toll road alternative would extend the existing SR-241 Toll Road south from Oso Parkway to connect with I-5 at the Orange/San Diego County line. This alternative alignment would cross Ortega Highway approximately 4.0 miles inland of I-5 and 1 mile east of Antonio Parkway. It would pass through the west side of the Donna O'Neill Land Conservancy and the inland portion of the San Onofre State Beach Park. At buildout, this alternative would provide eight travel lanes: six mixed flow lanes and two high occupancy vehicle lanes.
- **Alignment 7 Corridor-Avenida La Pata Variation Alternative.** This toll road alternative would extend the existing SR-241 Toll Road south from Oso Parkway to Avenida La Pata in the City of San Clemente; it would not connect to I-5. Vehicles would use Avenida Pico to reach I-5. This alternative alignment would cross Ortega Highway approximately 3.7 miles inland of I-5. It would displace residences and would pass through the east side of the Prima Deshecha Landfill. At buildout, this toll road alternative would provide eight travel lanes: six mixed flow lanes and two high occupancy vehicle lanes.
- **Arterial Improvements Only Alternative.** This alternative would involve the widening of Antonio Parkway/Avenida La Pata between Oso Parkway and just south of Camino Las Ramblas to beyond its County Master Plan of Arterial Highways designation. One additional lane would be provided in each direction. Between San Juan Creek and Avenida Pico, six travel lanes would be provided. Between Oso Parkway and San Juan Creek Road, eight travel lanes would be provided. Smart Street/Transportation Systems Management improvements would be constructed in existing rights-of-way (to improve traffic flow) on Avenida Pico, Camino Las Ramblas, Ortega Highway between Antonio Parkway/Avenida La Pata and I-5, and Avenida la Pata between Avenida Pico and south of Camino Las Ramblas.
- **HOV and Mixed Flow Lanes on I-5 Alternative.** This alternative would widen I-5 from the I-405/I-5 confluence (El Toro "Y") to the Orange/San Diego County line. This alternative would add one additional high occupancy vehicle lane and one mixed flow lane in each direction between Cristianitos Road and Lake Forest Drive. Auxiliary lanes would be provided in some locations along this segment of I-5. The addition of lanes would require major reconstruction of bridges, interchanges, and other structures and the acquisition of property along I-5.
- **No Action Alternative–OCP-2000.** This No Action Alternative assumes the buildout of unincorporated Orange County and cities within the County consistent with their respective General Plans. It uses the demographic forecasts set forth in Orange County Projections-2000 (OCP-2000) which assumes 21,000 dwelling units on the RMV

Planning Area. All components of the County Master Plan of Arterial Highways would be implemented with the exception of the southerly extension of the SR-241 Toll Road from its existing terminus at Oso Parkway. The No Action Alternative also assumes the implementation of 2001 Regional Transportation Plan improvements for south Orange County.

- **No Action Alternative–RVM Development Plan.** This No Action Alternative is a variation of the No Action Alternative–OCP-2000. This alternative assumes the same background land use and circulation system conditions. The following differences are applicable to this alternative. This alternative uses OCP-2000 projections for the County except for the RMV Planning Area. For the RMV Planning Area, 14,000 dwelling units (instead of 21,000 dwelling units) are assumed, consistent with Rancho Mission Viejo’s request to the County and subsequent approval by the County in GPA/ZC EIR 589. Circulation improvements associated with the RMV Planning Area project are also assumed.

The extent and type of impacts associated with SOCTIIP would vary dependent on the alternative selected. For example, the selection of the I-5 Improvement Alternative would have limited impacts on biotic resources; however, it would result in the displacement of existing uses and have substantial construction-related impacts. The toll road alternatives would have substantial impacts on biotic resources. Alternatives that connect to I-5 in the vicinity of Avenida Pico would also have displacement impacts. The following summarizes potential impacts of the various SOCTIIP alternatives.

- **Physical Processes and Conditions.** The SOCTIIP Alternatives, with the exception of the No Build Alternative, would have the potential of having water quality impacts associated with pollutants in runoff from the roadway. However, current regulations require that the water be treated prior to release into downstream waters; therefore, potentially significant short-term adverse impacts to water quality would be mitigated to below a level of significance.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Each of the build alternatives would result in unavoidable impacts to wildlife and vegetation as well as threatened and endangered species. Biological impacts are more fully addressed in subchapter 9.2.3.1 of this EIS.
- **Land Use.** By requiring the temporary use of land to accommodate construction-related activities, conflicting with adopted land use plans, and dividing existing communities, each of the SOCTIIP build alternatives would result in unavoidable adverse impacts with respect to land use.

Three SOCTIIP alternatives, the Far East Corridor-West Alternative, Far East Corridor-Modified Alternative, and Alignment 7 Corridor-Far East Crossover-Modified Alternative, would result in unavoidable impacts on military operations on MCB Camp Pendleton. These alignments traverse San Onofre State Beach, which is leased from the Department of the Navy. The roadways would sever this acreage from the remainder of the base, which could result in limitations on the future effectiveness of those acres for military training operations.

- **Agricultural and Aggregate Resources.** By converting farmland to non-agricultural use and impacting certain lands subject to the Williamson Act, each of the six toll road alternatives would result in significant impacts to farmland, as would the arterial

improvements only alternative. Neither the I-5 Alternative nor either of the two No Build Alternatives would significantly impact farmland.

- **Air Quality.** Each of the build alternatives would result in significant hydrocarbon (HC), carbon monoxide (CO), nitrogen oxide (NO_x) and fine particulate matter (PM₁₀) air quality impacts during construction. Similarly, each of the build alternatives would result in significant CO and NO_x impacts during operations. The No Build Alternatives would not result in significant air quality impacts.
- **Noise.** Implementation of the mitigation measures identified in the SOCTIIP EIS/SEIR would reduce construction-related impacts for each of the build alternatives except I-5 to a level considered less than significant. The I-5 alternative would include nighttime demolition along I-5 and, therefore, result in significant noise impacts. All the long-term significant adverse noise impacts associated with the SOCTIIP build alternatives could be reduced to below a level of significance with implementation of the mitigation measures discussed in the SOCTIIP EIS/SEIR. However, if mitigation is not implemented at any location, there would be a significant adverse noise impact at that location.
- **Visual Resources.** All the SOCTIIP alternatives, except the No Build Alternative, would result in significant aesthetic impacts by altering the visual quality of the area. The I-5 alternative (arterial improvements only) and those SR-241 alternatives that connect with I-5 in the vicinity of Avenida Pico would result in impacts to the existing urban environment by removing buildings and landscaping. The level of impact and nature of the impact would be different than the impacts associated with the construction of SR-241 through undeveloped areas. The toll road alternatives would result in substantial amounts of grading, removal of vegetation, and construction of an urban component in areas that are currently undeveloped. This would change the visual character and setting of the area.
- **Cultural Resources.** Each of the build alternatives would have potentially significant adverse impacts on cultural resources. Because of the extensive amount of earthmoving activities that would be required for the construction, all of the build alternatives, including the Arterial Improvements Only Alternative, could result in potentially significant adverse impacts to archeological resources. Similarly disturbance of historic resources is possible with the I-5 and SR-241 alternatives.
- **Population, Housing, and Employment.** None of the SOCTIIP alternatives would result in adverse impacts related to Environmental Justice, however, the Central Corridor Alignment, Alignment 7 Corridor-Avenida La Pata Variation Alternative, and I-5 alternatives would result in unavoidable impacts related to socioeconomics by displacing residential and/or commercial uses and inducing growth.
- **Recreation.** Each of the SOCTIIP would result in adverse impacts on one or more existing and/or planned recreation resources which cannot be mitigated to below a level of significance due to the fact that they would result visual, air quality, transportation or noise impacts that could reduce individuals' enjoyment of recreation facilities. In addition, the Far East Corridor-West Alternative, Far East Corridor-Modified Alternative, Central Corridor Alignment, Alignment 7 Corridor-Far East Crossover-Modified Alternative, and I-5 alternatives would result in the acquisition of recreation lands.

SR-241 Widening. This highway improvement would widen the southbound SR-241 between Bake Parkway and Santa Margarita Parkway to provide four general-purpose lanes (Project number 3 on Figure 9-1). About half the length of this project is within the SAMP Study Area. The project is consistent with the ultimate cross-section evaluated as part of the EIR completed in 1990 for SR-241. When the initial phase of SR-241 was constructed, the ultimate right-of-way was graded and mitigation implemented. This phase of develop would also require a Nationwide Section 404 permit and Section 1600 agreement for improvements at stream crossings. Although the permit has not been issued, it is reasonable to assume that the nature of the impacts and mitigation would be the same as for the northbound improvements. The project would also be subject to NEPA evaluation by the USACE. Other impacts associated with this phase of construction would be limited to short-term construction impacts (i.e., construction related air quality and noise impacts and short-term traffic impacts).

SR-73 (north of I-5). This highway improvement would widen SR-73 north of I-5 to provide a fourth general-purpose lane in the northbound direction (Project number 4 on Figure 9-1). The project would be consistent with the ultimate cross-section evaluated as part of the EIS/EIR for SR-73. Because grading of the ultimate right-of-way was done as part of the initial phase of construction, the impacts associated with the widening would not be expected to be extensive. While the CEQA documentation is complete, permits from the regulatory and resource agencies may be required. While this proposed project has been identified in the Transportation Corridor Agencies Capital Improvement Program, there is no funding specifically identified for project implementation or is there a designated timeframe for its implementation. The project would likely result in short-term construction related traffic, air quality, and noise impacts and minor vegetation removal.

SR-241 (Oso Parkway to Santa Margarita Parkway). This highway improvement would widen SR-241 between Oso Parkway and Santa Margarita Parkway to provide three general-purpose lanes in each direction to improve the circulation system (Project number 5 on Figure 9-1). The jurisdiction of the project is shared with Caltrans. The proposed project would be consistent with the ultimate cross-section evaluated as part of the EIR for SR-241. When the initial phase of SR-241 was constructed, the ultimate right-of-way was graded and mitigation implemented. Since grading of the ultimate right-of-way was done as part of the initial phase of construction, the impacts associated with the widening would not be expected to be extensive. Although the CEQA documentation is complete, permits from the regulatory and resource agencies may be required, including NEPA evaluation by the USACE. Although this project has been identified in the Transportation Corridor Agencies Capital Improvement Program, there is no funding specifically identified for project implementation or is there a designated timeframe for its implementation. The project would likely result in short-term construction related traffic, air quality, and noise impacts and vegetation removal.

Avenida Vista Hermosa (Calle Frontera to I-5). The construction of this circulation system improvement project within the City of San Clemente has been completed. This improvement included the construction of a four-lane primary arterial with an interchange at I-5. The jurisdiction of the project was shared with the City of San Clemente (Project number 6 on Figure 9-1). A Finding of No Significant Impact/Mitigated Negative Declaration (FONSI/MND) was completed in August 1991. The following adverse impacts were identified in the environmental document, though all impacts were mitigated to a level of less than significant:

- **Physical Processes and Conditions.** The project would alter or affect the existing pond and downstream drainage course. This impact would be reduced to a level considered less than significant through the construction of a low retaining wall constructed near the top of the slope directly above the outlet of an existing eight-foot

concrete arch culvert. The project would result in contaminated runoff from street surfaces. This impact would be reduced to a level considered less than significant via compliance with erosion control measures and the utilization of grease traps at collection points.

- **Riparian and Wetlands Habitat/Non-Aquatic Biological Resources.** The project would have the potential of disturbing .01 acres of freshwater marsh habitat during heavy rains and the disturbance of .05 acres of wetland as a result of the alteration of the culvert. These impacts would be mitigated to a level considered less than significant.
- **Transportation and Circulation.** The project would result in impact to existing pedestrian and bicycle traffic using the Avenida Vista Hermosa as a result of an increase in traffic in the project vicinity, and create a need for signalization control. These impacts were mitigated by the incorporation of project design features for traffic signals, the restriction of pedestrian access to enhance safe movement, the addition of a fifth lane to provide for adequate length of weaving, and the construction of 15-foot wide right lanes for trucks on north and southbound loop on-ramps.
- **Air Quality.** The project would result in short-term construction impacts. Compliance with regulations requiring water for the control of dust, construction vehicles equipped with emission control equipment, as well as project phasing carefully planned to minimize disturbance to existing traffic patterns would reduce this impact to a level considered to be less than significant.
- **Noise.** The project would expose adjacent homes to short-term construction noise. This impact would be reduced to a less than significant level via compliance with the Noise Ordinance and the construction of noise barriers along residential areas.
- **Cultural Resources.** The project would affect archaeological resources. All impacts would be reduced to a level considered to be less than significant with implementation of Standard Conditions of Approval, compliance with existing regulations, and implementation of mitigation measures.
- **Population, Housing, and Employment.** The project would require the acquisition of approximately 0.08 acre of the rear yard of one adjacent residential property. This impact would be reduced to a level considered to be less than significant through compensation at fair market value

9.2.2.3 County of Orange Projects

The following projects in unincorporated Orange County have been identified as potential cumulative project for this analysis.

Ladera Ranch. The Ladera Ranch Planned Community project, evaluated in EIR 555 and currently under construction, is located south of the Las Flores Planned Community, west of Chiquita Ridge, and east of the Crown Valley Parkway Bridge (Project number 7 on Figure 9-1). The project is planned for 8,100 housing units, 25 acres of commercial and industrial uses, 1,600 acres of open space, 59 acres of parks and public facilities, and 11 acres of urban activity center. Currently, almost the entire project is built. All mass grading is complete. The EIR identified the following as significant impacts:

- **Physical Processes and Conditions.** Construction activities would increase the amount of erosion on the site thereby increasing sedimentation in Trabuco and San Juan Creeks. Construction equipment would also increase the chance of toxins entering the creeks. While compliance with the requirements of NPDES stormwater permits, the Orange County DAMP, and specific County requirements of the County's stormwater permits would be mandatory, the level of significance would remain potentially significant after mitigation. However, the project would be in full compliance with federal, state, and local water quality programs and an urban runoff management plan was prepared to reduce the impacts to the extent feasible.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Project development would result in the loss of 2,244.40 acres of annual grassland and 61.44 acres of coastal sage scrub (39.83 acres attributed to the land development area and 21.61 acres as roadway impacts). This would substantially affect several sensitive raptor species, as well as several sensitive bird and reptile species. This change would remain a significant impact that can only be partially mitigated through the permanent preservation protection of an area of approximately 1,600 acres of natural habitat preserved in permanent open space. Impacts associated with the loss of natural habitat would include displacement of wildlife, habitat fragmentation, and the loss of habitats that support sensitive wildlife species.
- **Land Use.** Project implementation would result in the conversion of almost 50 percent of undeveloped and low intensity uses to high intensity urban uses. Although mitigation would provide for the preservation of approximately 1,600 acres for open space surrounding the development area, the level of significance after mitigation would remain significant.
- **Transportation and Circulation.** It was projected that up to 16 intersections would operate at a deficient level of service in the year 2020, 13 of which would be significant project-related impacts. In the year 2000, it was projected that there would be four project-related deficient intersections. The project applicant would pay a pro-rata share for improvements at intersections that would be deficient without the project and provide improvements to intersections that would experience unacceptable level of service due to project impacts. The level of significance after mitigation would remain significant. Subsequent to certification of the EIR, the project applicant entered into a Development Agreement with the County of Orange to provide funds for regional transportation improvements.
- **Air Quality.** Construction impacts for CO, NO_x, PM₁₀, and ROC would exceed SCAQMD thresholds. Regional mobile source emissions would result in significant increases in emissions for CO, NO_x, ROC, and PM₁₀. Implementation of measures in compliance with SCAQMD Rules 402 and 403 would reduce construction emissions and fugitive dust, and the implementation of a transportation demand management plan for the urban activity center would identify project trip reduction strategies thereby reducing employee-related trips by 15 percent. Impacts would continue to remain even after these measures are implemented.
- **Noise.** There would be short- and long-term noise impacts associated with project development. Compliance with the County Noise Ordinance and participation on a pro-rata share for a noise mitigation program would reduce the impacts to a level of less than significant.

- **Visual Resources.** Project implementation would alter the views of the surrounding areas during construction; however, the uses proposed would be a continuation of surrounding development. No significant impacts were identified.
- **Cultural Resources.** The project has the potential to directly affect 18 known cultural resource sites. There is also the potential of four sites to be indirectly affected. Impacts would be reduced to levels considered not significant through implementation of standard conditions of approval.

Antonio Parkway (Oso Parkway to southern boundary of Ladera Ranch). This project, which has been completed, widened Antonio Parkway from Oso Parkway to the southern boundary of Ladera Ranch to six lanes (Project number 8 on Figure 9-1). EIR 555 addressed the construction of Antonio Parkway to its ultimate six lane configuration in conjunction with the development of the Ladera Ranch Planned Community. A four-lane facility from Oso Parkway to Ortega Highway was constructed as part of the initial phase of the project. Grading for the ultimate facility was completed as part of the initial phase of construction. Impacts associated with the roadway are within the impacts identified as part of Ladera Ranch.

Arroyo Trabuco Golf Course. EIR 580, certified in 2002, evaluated environmental impacts of this project. The site is located west of Ladera Ranch (Project number 9 on Figure 9-1). The project site is approximately 230 acres; of this, 55 acres would remain as natural, ungraded land. Construction of this project is complete. The following potential environmental impacts were identified in the EIR:

- **Physical Processes and Conditions.** During construction, there would be a potential for soil erosion and water quality impacts. Project design features and Orange County Standard Conditions of Approval would reduce these impacts to a level considered less than significant via the implementation of a WQMP and use of BMPs.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The loss of 11.7 acres of coastal sage scrub, 36.2 acres of annual grassland, 15.1 acres of Valley needlegrass grassland, and 9.3 acres of disturbed Valley needlegrass grassland would be considered a significant impact. There would be the disturbance of 0.21 acres of freshwater marsh and 0.31 acres of disturbed wetlands, the loss of 12.41 acres of riparian habitats, the disturbance of 0.33 acres of sycamore trees, the temporary disturbance of 6.49 acres of open water, all of which would be considered a significant impact. The dedication of 359 acres of open space including natural habitats and other vegetative cover types in conjunction with the project applicant re-vegetating/restoring 3.0 acres of coastal sage scrub, 18.2 acres of native grassland, and 16.0 acres of wetland and riparian habitat within the limits of the project or in the dedicated open space would reduce these impacts to a less than significant level.

The project could have a significant impact on the coastal California gnatcatcher and the least Bell's vireo due to direct and indirect impacts to the habitat for these species, coastal sage scrub (gnatcatcher) and southern willow scrub (vireo). The above-mentioned dedication, in addition to a construction monitoring program, project design features, and a 20-year cowbird trapping program would mitigate impacts to less than significant.

The proposed project would impact 0.095 acres of USACE jurisdictional waters/wetlands and permanent impacts to CDFG jurisdictional total 2.065 acres. The Section 404 and Section 1603 Streambed Alteration Agreement, with conditions, and development of a

Resource Management Plan would reduce the impact to a level considered less than significant.

- **Land Use.** There were no significant land use impacts identified. However, in relation to the proposed Arroyo Trabuco Regional Riding and Hiking Trail, the applicant would be required to provide a recreation trail for riding and hiking purposes prior to the recordation of the applicable subdivision map and/or issuance of a building permit.
- **Transportation and Circulation.** The intersection capacity utilization increase at the intersection of Marguerite Parkway at Avery Parkway could be one percent or more, representing a significant impact if the proposed golf course banquet facilities were used for weekday, midday events. The installation of a signal at the intersection of Plata Place at Avery Parkway would reduce this impact to a level considered less than significant.
- **Agricultural and Aggregate Resources.** There would be a reduction in the availability of sand and gravel mineral resources. This would be considered an unavoidable impact of the proposed project.
- **Air Quality.** Construction of the project would result in significant short-term impacts from NO_x and PM₁₀ during the peak day and in the peak quarter, and sensitive receptors would be exposed to substantial concentration of PM₁₀ during construction. These impacts would remain significant, even with full compliance with SCAQMD regulations, including Rule 402, the Nuisance Rule, and Rule 403, Fugitive Dust.
- **Noise.** Surrounding sensitive receptors would be subjected to noise impacts. Compliance with the applicable noise ordinances and design of the public address system would reduce these impacts to less than significant.
- **Cultural Resources.** Grading and excavation activities could impact unknown archaeological resources and paleontological resources. The retention of a County-certified archaeologist and paleontologist to observe grading activities and to salvage and catalogue archaeological resources or fossils as well as create follow-up reports would reduce this impact to a level considered less than significant.

Crown Valley Parkway Bridge. The project is the phased construction of Crown Valley Parkway across the Arroyo Trabuco within the City of Mission Viejo and in unincorporated Orange County (Project number 10 on Figure 9-1). This roadway improvement project would widen Crown Valley Parkway to seven lanes. The initiation phase provided a four-lane bridge structure and was completed in 2001. Construction of the second phase, which provides widening to the full seven-lane width, has been completed. The following potential environmental impacts were identified in the EIR associated with construction of the project. Most of the impacts occurred within the first phase of construction because the abutments for the ultimate width were constructed at that time. The widening of the bridge would occur within the footprint of the impact area from the initial construction.

- **Physical Processes and Conditions.** The abutment for the bridge structure would be exposed to rainfall and possible erosion until the ultimate project is constructed. Mitigation would reduce these impacts to a level considered less than significant.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The removal of up to 11.8 acres of habitat, which included 2.83 acres of Venturan-Diegan Transition coastal sage scrub, 2.96 acres of annual and ruderal grasslands, 0.98 acres of Southern

Coastal Needlegrass Grassland, and 4.4 acres of riparian communities, would be a significant impact. Construction activities would have adverse impacts on water quality; affect four pairs of coastal California gnatcatcher's and two least Bell's vireo; and remove suitable habitat for nesting and foraging for a variety of raptor species. Mitigation would involve placing a conservation easement over coastal sage scrub occupied by the California gnatcatcher, reseeding the abutment slopes, the replacement of riparian habitat, the development of erosion and sediment control measures, and surveying the project site prior to construction for the presence of active nests. The level of significance after mitigation would be less than significant for all biological impacts.

- **Land Use.** The project would impact the slopes of the common property for the Cordova Canyon Homeowners Association and parcels owned by the Mission Viejo Company and Santa Margarita Company. Implementation of project-specific mitigation measures would reduce any impact to a level considered less than significant.
- **Air Quality.** The project would result in short term construction-related emissions that exceed SQAMD thresholds. The level of impact would remain significant after mitigation.
- **Noise.** The long-range traffic volumes associated with the project would result in noise levels in excess of County standards at the All Bright Preschool on Crown Valley Parkway. Mitigation would include provisions for an 8-foot-high wall near the daycare center to reduce impacts to a level considered less than significant.
- **Visual Resources.** The proposed project would alter viewsheds. Mitigation measures for biological resources would help to minimize visual intrusion of the project and reduce any impact to a level considered less than significant.
- **Cultural Resources.** The project would result in the possibility of impacts to archaeological and paleontological resources. Adherence to specific mitigation measures would reduce these impacts to a less than significant level.

Saddleback Meadows. This project would cover 222 acres, located east of El Toro Road and north of Upper Oso Reservoir (Project number 11 on Figure 9-1) and develop 283 new homes and 159 acres of open space. The Orange County Board of Supervisors certified the Subsequent EIR 566 in 2002. Development of the project was delayed due to litigation; however, this was resolved in May 2004. A Development Agreement, which would extend the time period for the tentative tract map, was approved on August 2, 2005. Permits from the resource agencies are still required. Based on the Subsequent EIR, the following potential impacts were identified:

- **Physical Processes and Conditions.** The project would result in increase impervious surface, resulting in an increase in storm flow runoff. Maintaining natural drainage patterns and revegetation of areas deemed to be over-grazed and subject to high runoff and erosion, as well as construction of structures designed to accommodate a 100-year storm event would reduce the impact to less than significant. Additionally, the implementation of BMPs would reduce pollutants that would be contained in the urban runoff to the maximum extent feasible. Standard County Conditions require a storm water permit to be issued before grading begins and a permit identifying all BMPs used on-site to control predictable pollutant runoff. The State Water Resources Control Board would require a SWPPP and WQMP.

- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Impacts would include habitat fragmentation, exotic species invasion, lighting, domestic pet intrusion/predation, and increased human intrusion. Approximately 1.45 acres of streambed would be impacted. Impacts to coastal sage scrub and coast live oak woodland would be mitigated for both on- and off-site, and a wildlife movement corridor would be incorporated into the tract map. Design features; and compliance with Standard County Conditions; CDFG Section 1600, USACE Section 404, and USFWS ESA requirements; and other mitigation measures were identified to reduce impacts to a less than significant level.
- **Land Use.** The residential use would be a potentially incompatible use with the Rama Krishna Monastery and St. Michael's Abbey. This impact was mitigated through the dedication of 83.25 acres to the County, which would provide a topographic and natural space buffer between uses.
- **Transportation and Circulation.** The project would generate increased traffic near the project site. Project design, signalization, and implementation of Standard County Conditions would result in a less than significant impact.
- **Air Quality.** Construction and operation of the project would generate pollutant emissions. Incorporation of a comprehensive dust control program would ensure that impacts would be less than significant. Long-term, project-specific operational impacts would be less than SCAQMD significance thresholds and would not be significant. The project site would be located within a non-attainment air basin and its contribution to cumulative impacts is considered a significant adverse air quality impact.
- **Noise.** The project would contribute to short-term noise impacts associated with construction activities. Intervening terrain, compliance with the Orange County Noise Ordinance, and implementation of Standard County Conditions would reduce the impact on noise sensitive uses to a less than significant level.
- **Visual Resources.** The project would alter existing landforms and involve substantial grading. However, the project's rural character and preservation of more than 70 percent of the property within natural open space result in a less than significant impact.
- **Cultural Resources.** The project would have an impact on potential archaeological resources. Compliance with Standard Conditions of Approval for cultural resources would reduce these impacts to a level considered less than significant.
- **Recreation.** The proposed project would result in significant impacts to existing local public recreational facilities. The dedication of a recreation easement to the County and the construction of improvements and a trail rest stop and trail rest area would reduce recreational impacts to below a level of significance.

La Pata Avenue Gap Closure and Del Rio Extension. The roadway project includes the widening of La Pata Avenue from two lanes to four lanes from Ortega Highway to the Prima Deshecha Landfill and the extension of La Pata Avenue through the landfill to the existing terminus of Avenida La Pata at Calle Saluda in the City of San Clemente as a four-lane facility. The project also includes the extension of Del Rio as a four-lane facility from its existing terminus in the Forster Ranch community in the City of San Clemente to the proposed La Pata Avenue. The proposed improvements will be for an approximately four-mile long segment of La Pata Avenue and an approximately one-quarter mile segment of Del Rio (Project number 12 on

Figure 9-1). The project site is within unincorporated Orange County and the cities of San Juan Capistrano and San Clemente.

The EIR is under preparation. In the Notice of Preparation issued by the County of Orange on May 13, 2005, the following adverse impacts are anticipated:

- **Physical Processes and Conditions.** Implementation of the project would increase runoff resulting in potential water quality impacts. The project would alter the drainage pattern in the Prima Deshecha Cañada Watershed.
- **Riparian and Wetland Habitat/Non-Aquatic Biological Resources.** Portions of the roadway would affect an existing wildlife corridor; as well as the loss of natural habitat including non-native and ruderal grasslands and coastal sage scrub. Potential impacts to sensitive wildlife and plant species will be evaluated. There is the potential for wetland impacts. The project may also be subject to NEPA evaluation by the USACE.
- **Transportation and Circulation.** The project would close two critical gaps on the Master Plan of Arterial Highways. Potential impacts to existing roadway and intersection capacities and levels of service due to the redistribution of traffic will be evaluated.
- **Air Quality.** Short-term air quality impacts related to temporary construction emissions would occur; however, the project may result in long-term air quality benefits by reducing the long-term operation emissions associated with congestion.
- **Noise.** There would be both short-term construction noise impacts and long-term noise impacts associated with increased vehicular traffic.
- **Visual Resources.** The project will require a substantial amount of grading resulting in potentially significant topographical modifications and impacts to scenic resources.
- **Cultural Resources.** Potential impacts to archaeological and historic paleontological resources could occur.
- **Recreation.** Project implementation may impact trail crossings along La Pata Avenue and proposed Class II bikeway on La Pata Avenue.

Prima Deshecha Landfill. The County of Orange Integrated Waste Management Department prepared Final EIR 575 to address the potential impacts associated with the adopted 2001 Prima Deshecha Landfill General Development Plan (Project number 13 on Figure 9-1). The General Development Plan and associated EIR provided a programmatic evaluation for the full buildout of landfill operations through 2064, the end uses of the landfill property in the post-closure period, and construction activities at the site needed for landslide stabilization purposes in Zone 1. The County is currently preparing a second amendment to the General Development Plan and a Supplemental EIR 597 to address potential changes in the area of disturbance at the site associated with additional slope stabilization efforts; project features required for minimization of biological impacts associated with full buildout of Zone 4; development of a conceptual pre-mitigation plan to address all impacts through full buildout, and available project-level information for on-site features such as a desilting basin between Zones 1 and 4. These documents will also address project mitigation features associated with obtaining state and federal resource agency permits and authorizations needed for implementation of the approved 2001 General Development Plan.

The potential impacts associated with the 2001 General Development Plan are as follows:

- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The project would result in the removal of coastal sage scrub, riparian resources, and potentially impact special status habitats and special status species. Vegetation removal and habitat disturbance impacts of landfilling uses could affect nesting sites for listed bird species and raptors, as well as dens for coyotes, bobcats, and mountain lions. Consultations and mitigation plans developed with the USFWS and CDFG are intended to reduce impacts considered to be less than significant.
- **Land Use.** The project would have the possibility to create impacts due to activities and operations at the site that might conflict with adjacent, existing, or planned land uses. Agency negotiated design modifications and mitigation measures would be incorporated, as needed, to ensure less than significant impact.
- **Air Quality.** Fugitive dust from construction, equipment operation, and vehicular traffic would continue on a localized and periodic basis and there may be a minor short-term increase associated with landslide remediation features. Measures to minimize short-term construction would be incorporated into project plans, thereby reducing any impacts to a less than significant level.
- **Noise.** There is the possibility of localized increases in noise due to on-site construction of landslide remediation measures. Project design features would reduce any impacts to a level considered to be less than significant.
- **Visual Resources.** Landfilling uses would be visible from off-site vantage points and from recreational areas around the landfill. Changes in topography would have the possibility of impacting the view from on- or off-site areas. These impacts would be reduced to a level considered less than significant via Memorandum of Understanding requirements, and viewshed protection measures to reduce the visibility of landfill operations to a minimum from viewpoints in adjacent housing developments.

Implementation of the conceptual grading plan will result in significant topographic alteration of site. Incorporation of mitigation measures will ensure that site will not have a manufactured appearance and will be compatible with the existing natural terrain.

- **Cultural Resources.** The project will result in significant earth movement thereby having the potential to impact resources. Strict adherence to mitigation measures and Project Design Features would reduce any impacts to a less than significant level.
- **Recreation.** Impacts to hiking, riding, and biking trails in the area will be reduced below significance through the implementation of mitigation measures to maintain regional access.

The potential impacts associated with the Second Amendment to the 2001 General Development Plan are identified below:

- **Physical Processes and Conditions.** The project would have the possibility of depleting groundwater supplies as well as a subsurface source of spring flows for the Prima Deshecha Cañada watercourse. The impacts would be fully analyzed and design alternatives developed to reduce impacts. Landfill operations would necessitate

substantial movement of on-site material. Adherence to specific mitigation measures would reduce this impact to a level considered less than significant.

- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The second amendment would have the possibility to impact special status/State endangered species at the site (*Brodiaea*) as well as federally listed species at the site (least Bell's vireo and California gnatcatcher). The proposed action will impact Prima Deshecha Cañada stream and associated resources and, accordingly, will constitute an impact on Waters of the U.S. Consultation with the appropriate federal and state agencies and development of a comprehensive pre-mitigation plan was designed to reduce these impacts to below significance.

Dana Point Harbor Revitalization Project. This project would refurbish and expand existing retail and restaurant buildings and would involve the construction of an additional 25,000 square feet of retail uses, reconfiguration of all existing surface parking areas to provide a total of 1,452 parking spaces, new boater loading and drop-off areas, approximately 800 dry stack boat storage spaces, and improvements to boater service and public restroom buildings (Project number 14 on Figure 9-1). It would also reserve opportunities for the future expansion and/or reconstruction of the Dana Point Marina Inn as well as provide for additional boat-trailer parking and new dry-stack boat storage spaces. An EIR is in progress. Based on the Notice of Preparation distributed in October 2003, the EIR will address the following potential impacts:

- **Physical Processes and Conditions.** The EIR would examine increases in pollutant loadings in drainages, storm water runoff, and the impact of the replacement and/or construction of impervious surfaces. Analysis regarding how the project would impact the water quality within Dana Point Harbor and its association with flood hazards would be included.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The EIR would examine on-site habitat areas as well as any impacts to local and regional resource management plans. The project may be subject to NEPA evaluation by the USACE.
- **Land Use.** The EIR would examine the compatibility of the project with existing and planned surrounding land uses. Amendments to the existing Dana Point Harbor Planned Community Project as well as to the General Plan, Municipal Zoning Code, and Local Coastal Plan are expected to be required.
- **Transportation and Circulation.** The EIR would examine potential transportation, traffic, and parking impacts as well as existing conditions and the analysis of the vehicular and pedestrian circulation.
- **Air Quality.** The EIR would examine baseline air quality and assess traffic and construction impacts, as well as operational impacts for consistency with SCAQMD guidelines.
- **Noise.** The EIR would examine the baseline noise levels and assess the impact of traffic and operation noise generated by the land uses as well as its compliance with noise regulations. Short-term construction related noise would also be examined.
- **Visual Resources.** The EIR would examine the impact of the proposed change in views as well as potential lighting impacts.

- **Cultural Resources.** The EIR would examine the project's potential to disturb unknown archaeological resources.
- **Recreation.** The EIR would examine the renovation of existing recreational facilities as well as the reconfiguration of parking and park and picnic areas.

Robinson Ridge Development Project. EIR 594 is being prepared and will evaluate the potential impacts associated with the proposed Robinson Ridge project, located east of the Trabuco Canyon Road/Plano Trabuco Road intersection in the Foothill/Trabuco Specific Plan area of unincorporated Orange County (Project number 15 on Figure 9-1). The 89.4-acre project includes a maximum of 206 single-family residential lots, a bluff top park, a neighborhood park, trails, and open space. Based on the Notice of Preparation, the following potential environmental impacts will be addressed in the EIR:

- **Physical Processes and Conditions.** The project would result in a net increase in irrigation water required for yards. Portions of the site lie down slope from a retention basin with the Robinson Ranch. While unlikely, failure of the retention basin could release stored water onto the project site. The extreme northwest corner of the bluff face area has the potential to be impacted by flooding in a 100-year flood event as it is located adjacent to Trabuco Creek. These impacts would be mitigated via mitigation measures (which would include the non-development of the northwest corner of the bluff face area) that would reduce potential impacts to less than significant levels.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Some clearing of natural vegetation within the existing commercial nursery would be required. This would include the possible removal of eucalyptus windrows. Some clearing of vegetation with the wash area would also be required. A Tree Management and Preservation Plan would be prepared as part of the Area Plan. Further, natural communities such as coastal sage scrub and southern coast live oak riparian forest could potentially be impacted by project development. Mitigation measures were set forth in the EIR to reduce potential project-related impacts to less than significant levels. The project may be subject to NEPA evaluation by the USACE.
- **Land Use.** The proposed project is consistent with the policies of the Orange County General Plan and the Foothill/Trabuco Specific Plan. However, a technical amendment to the Foothill/Trabuco Specific Plan will be required to make the Specific Plan consistent with the General Plans of the City of Rancho Santa Margarita and the County of Orange. The potential for significant impact exists.
- **Transportation and Circulation.** A technical amendment to the Foothill/Trabuco Specific Plan would be required to make it consistent with the General Plans of the City of Rancho Santa Margarita and the County of Orange as there is the potential for significant impact. EIR 594 would include a traffic study and appropriate Project Design Features and mitigation measures that would avoid or reduce potential projects impacts.
- **Agricultural and Aggregate Resources.** The proposed project would convert the existing 89.4-acre container stock nursery usage on the project site to residential and public uses. Approximately 60 acres of farmland would be removed. This would be considered a potentially significant impact.

The extreme northwest portion of the site has the potential for mineral resources. This area is not proposed for development and is designated for open space. Less than significant impacts are expected.

- **Air Quality.** The project site is located with a non-attainment air basin and there is the potential for significant impact. During grading and construction activities, impacts would be elevated. The project would also affect air quality during the occupancy phase. The EIR would include an Air Quality Technical Report based upon the standards of the SCAQMD and mitigation measures that avoid or reduce potential impacts.
- **Noise.** Site grading and construction would result in short-term noise impacts to adjacent residential neighborhoods. There is the potential for significant impact; mitigation is expected to avoid or reduce potential project-related noise impacts.
- **Visual Resources.** Conceptual plans for the proposed project indicate the future development would not substantially alter existing gradients on the project site, with the exception of certain areas adjacent to the surrounding existing residences to maintain their existing view opportunities. Mitigation measures would reduce impacts to less than significant levels.
- **Cultural Resources.** The area in which the project is located is known to contain archaeological resources. Mitigation measures would reduce potential project-related impacts to below a level of significance.
- **Population, Housing, and Employment.** The project proposes a maximum of 203 single-family residential units which is less than the maximum 314 dwelling units allowed by the Foothill/Trabuco Specific Plan. Less than significant impacts are expected.
- **Recreation.** The proposed project includes several acres of recreation and open space, which includes a portion of the Plano Trabuco Bluff Top Linear Park, open space, and a landscape buffer. The project would avoid or reduce project impacts on recreation and open space.

Ortega Rock. Ortega Rock is an existing aggregate resource production facility. The County Sand and Gravel Site Permit for this facility covers approximately 126 acres of the 343 acres zoned for sand and gravel extraction. While current production has been deferred pending site maintenance and production studies, the operational lifespan of the quarry is anticipated to extend from 35 to 75 years based on the volume of available material and the estimated rate of extraction (between 400,000 to 1,000,000 tons annually). Ortega Rock is subject to the State Mining and Reclamation Act (SMARA) and the Reclamation Plan for the facility includes a revegetation program that outlines the measures and monitoring strategy to be employed to return the site to a more natural appearance following extraction activities. The ultimate disposition of the site has been predetermined in accordance with the adoption of the Rancho Santa Margarita Planned Community in 1982. The 343 acres that are zoned for sand and gravel extraction would become a part of Caspers Wilderness Park upon depletion of the mined resource, cessation of mining operations, and implementation of the Reclamation Plan per SMARA. An irrevocable offer of dedication was tendered and agreed to for this purpose by the County of Orange Board of Supervisors in 1982.

Subsequent EIR 539 was prepared and certified by the County of Orange to document the potential environmental impacts associated with operation of the extraction facility. The following is a summary of the findings of this EIR:

- **Physical Processes and Conditions.** The project has the potential to introduce silt, sediment, and hazardous substances into water courses. Mitigation measures, including submittal of a Stormwater Pollution Prevention Plan, were identified to reduce this impact to a level of insignificance.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The project would result in the loss of coastal sage scrub and associated wildlife including the cactus wren, less than an acre of jurisdictional wetlands, impacts to the wildlife corridor in Lucas Canyon and loss of a limited number of oak trees (five). Measures were identified to mitigate impacts to biological resources except for impacts to the Lucas Canyon wildlife movement corridor and five cactus wren territories. The later impacts were identified as unavoidable adverse impacts. Any potential impact to Waters of the U.S. would be subject to NEPA evaluation by the USACE.
- **Land Use.** An existing slough slope extends within the 50-foot-wide buffer required by the Sand, Gravel and Mineral Extraction Code. Mitigation measures were identified to reduce this impact to a level of insignificance.
- **Transportation and Circulation.** The proposed facility operations will generate approximately 1,550 trip-ends and 18,600 vehicle miles traveled. Mitigation measures were identified to reduce this impact to a level of insignificance.
- **Air Quality.** The project emissions would exceed the AQMD thresholds of significance for total suspended particles and PM₁₀. Mitigation measures were identified to reduce this impact to a level of insignificance.
- **Noise.** No significant noise impacts were identified for the operation of the facility.
- **Visual Resources.** Portions of the site would be visible from Ortega Highway and Caspers Regional Park. Implementation of the post-extraction reclamation plan would reduce these identified impacts over the long term, however, in the short- and mid-term these impacts were considered unavoidable.
- **Cultural Resources.** No cultural resources were identified for the project site; nevertheless, standard conditions were placed on the project in the event of a discovery during operation of the facility.
- **Recreation.** Quarry operation may restrict implementation of the County segment of the Lucas Canyon Trail. A mitigation measure was identified to reduce this impact to a level of insignificance through submittal of a plan for an alternate location for the Lucas Canyon Trail alignment.

9.2.2.4 City of San Juan Capistrano

The following projects have been identified in the City of San Juan Capistrano as potential cumulative projects:

San Juan Meadows. The project would construct 275 single-family detached dwellings and 165 senior housing units, a public use site and 72 acres of open area (Project number 16 on Figure 9-1). EIR 92-02, San Juan Meadows (July 1992) identified a number of significant impacts. As a result of minor changes to the project, a Mitigated Negative Declaration was approved for the project on November 12, 1996. A Development Agreement, which would extend the time period for the tentative tract map, was approved on August 2, 2005. Permits from the resource agencies are still required. The impacts are as follows:

- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The project would result in significant impacts to plant communities as a result of grading and development as well as the potential to disturb existing gnatcatcher populations on the project site. The mitigation program set forth in the EIR is intended to reduce all impacts to less than significant level via adherence to mitigation measures requiring the submission of grading and erosion control plans, a coastal sage scrub mitigation plan, a wetland mitigation plan, and a landscape plan. The project would also be subject to NEPA evaluation by the USACE should it affect Waters of the U.S.
- **Transportation and Circulation.** The existing-plus-project levels of service at Camino Capistrano/San Juan Creek Road and at Valle Road/La Novia Avenue-I5 northbound ramps would be at unacceptable levels and would not satisfy signal warrants at any unsignalized intersection. Adherence with mitigation requiring the widening of La Novia Avenue, the inclusion of improvement plans for La Novia for adequate sight distance ensuring acceptable design techniques, and the project's contribution of its fair share of the total intersection and roadway improvements would reduce impacts to less than significant levels.
- **Air Quality.** The project would result in impacts to air quality as a result of construction equipment operations during grading and development, automobile traffic to and from the site after development and gas flare emissions associated with the landfill closure. Compliance with mitigation measures requiring adherence to traffic control measures and construction-related air quality impacts would reduce these impacts to less than significant levels. However, cumulative regional air quality impacts would remain unavoidable.
- **Noise.** The project would result in potentially significant noise impacts to future residents associated with increased traffic level. Compliance with mitigation measures requiring the preparation and submission of an acoustical analysis would reduce this impact to less than significant levels.
- **Visual Resources.** The project would result in significant impacts to area viewsheds. These impacts can be reduced to levels considered to be less than significant via compliance with mitigation measures requiring contour grading, the incorporation of horizontal architectural elements for senior housing, a landscaping easement, and colors complimenting the ambience of the proposed project site.

Honeyman Ranch. The Honeyman Ranch, located north of the intersection of Ortega Highway on Rancho Viejo Road, proposed the subdivision of the 78.6-acre property into 129 single-family residential lots and open space (Project number 17 on Figure 9-1). Discretionary actions would include a zone change, hillside management regulations, and approval of a tentative tract map. Impacts are as follows:

- **Physical Processes and Conditions.** The project would result in increased runoff volume, changes the hydrology of the site, increase the potential for erosion and siltation, and creation of more impervious surface area than currently exists. These impacts can be reduced to less than significant levels with implementation of mitigation requiring the construction of a stormwater detention basin, compliance with hydraulic analysis recommendations, submission and approval of a WQMP, and the construction of a grassy swale bio-filter. The potential short-term impact of siltation and construction-related pollutants is considered a significant impact.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The project would result in impacts to sensitive plant species, tree resources, nesting birds, and sensitive wildlife. The impacts would be reduced to levels considered to be insignificant as a result of compliance with mitigation requiring spring focus surveys, the surveying of trees to determine if they meet the City's heritage tree criteria, a nesting survey, a trapping program, and the installation of fencing along the common boundary between homes abutting the adjacent open space to control domestic pet predation. Should the project impact Waters of the U.S., it would also be subject to NEPA evaluation by the USACE.
- **Transportation and Circulation.** The project would result in impacts to several intersections, including Ortega Highway/I-5 southbound ramps, Ortega Highway/I-5 northbound ramps, Ortega Highway/Del Obispo, and Ortega Highway/Rancho Viejo Road. These impacts would be reduced via compliance with mitigation requiring intersection-specific improvements.
- **Air Quality.** The project would result in short-term impacts as a result of PM₁₀ generated during grading. This impact would be reduced to a level considered less than significant with mitigation compliance requiring the use of low emissions mobile construction equipment, the encouragement of rideshare and transit programs, the watering of active grading sites at least twice a day, cleaning of the tires leaving the site to reduce particular matter transfer to paved streets, and a limitation of traffic speeds on unpaved roads.
- **Noise.** Vehicular noise generated along Rancho Viejo Road would impact proposed residences. This impact can be reduced to a level considered less than significant via mitigation requiring the construction of a noise wall up to eight feet in height within the property line of the project site along the frontage of Rancho Viejo Road.
- **Cultural Resources.** There would be unavoidable impacts to the Ardley Leck House, a historical resource. The home would be demolished. A mitigation measure requiring advertisement for a period of 60 days in the Orange County Register and the National Trust for Historic Preservation magazine stating the house is available for relocation would partially reduce this impact. However, if at the end of the advertisement period there is no person willing to relocate the building, it will be demolished. As such, this would continue to be considered an unavoidable impact.

La Novia Bridge. The project proposes to demolish, in phases, the existing two-lane bridge across San Juan Creek and replace it with a four-lane bridge (Project number 18 on Figure 9-1). The three-span bridge would be approximately 260 feet long and 84 feet wide. In addition to the four lanes for vehicular traffic, the bridge would provide equestrian and pedestrian lanes. The City of San Juan Capistrano is in the process of preparing an EIR for the project. Based on the Notice of Preparation, the anticipated impacts associated with the project are:

- **Physical Processes and Conditions.** During construction activities the project may require the diversion of flows in San Juan Creek and necessitate the placement of equipment in the streambed. The demolition and construction activities could result in additional pollutants being discharged into San Juan Creek. Long-term, the project would not be expected to affect the flows or water quality within the creek.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The project has the potential to impact aquatic resources and sensitive species that exist or expected to exist within those habitats. Construction activities would have the potential to have short-term impact to wildlife movement within San Juan Creek. The projects would also be subject to NEPA evaluation by the USACE.
- **Transportation and Circulation.** The project may result in short-term construction traffic impacts as a result of traffic being redirected during construction. The EIR prepared for the La Novia Bridge will also evaluate the long-term impacts on other arterial highways and intersections.
- **Air Quality.** The project may result in short-term impacts associated with demolition and construction activities. The Notice of Preparation identified the potential for long-term operational impacts but indicated that the project would widen the roadway to General Plan standard and would not generate additional trips because no modification to land uses is proposed.
- **Noise.** Project construction would result in short-term noise and ground borne vibration impacts. The project may also result in incrementally greater operational noise impacts.
- **Visual Resources.** The project crosses San Juan Creek, a sensitive aesthetic resource. The wider bridge would be more visible to surrounding uses and construction activities would result in short-term visual impacts.
- **Cultural Resources.** Based on information in the General Plan, the area surrounding the La Novia Bridge is located in an area identified as a location of prehistoric and historic archaeological resources.

Pacifica San Juan. The 256.7-acre Pacifica San Juan site comprises the southern two-thirds of the 391.6-acre Forster Canyon Planned Community, which is located in the southern portion of the City of San Juan Capistrano (Project number 19 on Figure 9-1). The Pacifica San Juan Final Supplemental EIR (September 2, 2003) identifies the impacts of the proposed revisions to the Pacifica San Juan portion of the Forster Canyon Comprehensive Development Plan. The revised land plan and grading concept was developed to address several changes in circumstances since the original project approval. In addition to the grading related changes, an increase of 68 dwelling units, for a total of 418 units is requested. The Supplemental EIR identified the following impacts:

- **Transportation and Circulation.** The project would increase traffic volume in the area. This impact can be reduced to a level considered less than significant with mitigation requiring the installation of applicable signage, the addition of applicable roadway and turning lanes, and the re-striping of roads as necessary.
- **Air Quality.** The project would contribute to emissions of ROG and NO_x, and would continue to exceed the SCAQMD thresholds. While mitigation measures can partially reduce these impacts, they would continue to be unavoidable.

- **Noise.** The project would increase noise levels in the area as a result of construction. These impacts can be reduced via compliance with the Noise Ordinance and construction of a temporary noise barrier to shield stationary construction equipment.

JSerra High School (South Campus). This project, located between Junipero Serra Road and I-5 west of Camino Capistrano, would develop an approximately 29.2-acre vacant site to provide recreational amenities to support the North Campus of the private high school, which is located across the street in three converted office buildings (Project number 20 on Figure 9-1). The campuses would be connected with a pedestrian bridge. The high school would serve grades 9 through 12 and would have capacity of 2,200 students. The following impacts were identified in the Draft EIR:

- **Physical Processes and Conditions.** The project would result in an increase in impervious surface, potential for siltation and discharge of construction-related pollutants, as well as the possibility of common urban pollutants infiltrating groundwater. These impacts would be reduced to levels considered less than significant with implementation of mitigation measures requiring compliance with a hydrology analysis, the approval of an Erosion Control Plan, Water Quality Management Plan and a SWPPP, as well as a post-construction stormwater management plan.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The project would remove portions of southern arroyo willow riparian forest and a “blue line stream,” introduce invasive plant species, and remove nesting habitat for raptors and the burrowing owl. These impacts would be reduced to levels considered to be less than significant with mitigation requiring the creation of a wetlands mitigation plan, precluding the use of invasive and non-native plant species, and requiring a raptor nest survey and a burrowing owl survey. The project may also be subject to NEPA evaluation by the USACE.
- **Transportation and Circulation.** Five intersections would be impacted by the project. Implementation of the recommended mitigation measures would result in less than significant impacts to all impacted intersections. However, mitigation for addition of a second northbound left-turn lane to reduce impacts at northbound I-5 and Junipero Serra Road would require Caltrans approval. Since the approval and timing are uncertain, this impact would remain unavoidable.
- **Air Quality.** The project would result in short-term construction-related emissions of criteria pollutants NO₂ and ROG in excess of SCAQMD thresholds. These impacts would be reduced to a level considered less than significant with mitigation.
- **Noise.** The project would have potential impacts on nearby residences. This impact would be considered less than significant after mitigation requiring the redesign of the site plan incorporating a minimum six-foot-high masonry wall near the Casitas Capistrano townhomes.
- **Visual Resources.** The apparent building height, scale, and massing of the proposed performing arts complex and gymnasium may constitute visually obstructive structures. Athletic field lighting poles would break General Plan-designated ridgelines from various viewing points on and off the project site, be visually offensive structures within view of two General Plan designated Scenic Highways and also result in a substantial increase in the ambient lighting level in the community. These impacts would be partially mitigated via the revision of the project landscape plan, submission of a revised lighting

and photometric plan and conformance with City and Industrial and Systems Engineering standards. However, each of these impacts would be unavoidable.

- **Cultural Resources.** An archaeological site is located in the northwestern portion of the project site. The project has the potential to impact this cultural site from future maintenance of school facilities.

Whispering Hills. The project proposes a General Plan amendment, zone change, development agreement, vesting tentative tract map, and Comprehensive Development Plan for the construction of 155 single-family dwelling units on the eastern edge of the City by La Pata Avenue (Project number 21 on Figure 9-1). The City of San Juan Capistrano certified an EIR for a larger project in 2002. An addendum to a prior EIR has been prepared addressing the current proposal. The following areas of impact were identified:

- **Physical Processes and Conditions.** Water resource impacts would be associated with increased runoff. Compliance with the DAMP and conditions of approval would reduce impacts.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Biological resources associated with habitat removal. However, resource and regulatory permits have been approved which incorporate mitigation that reduces the impact to less than significant.
- **Air Quality.** Air quality impact from construction activities were identified as significant.
- **Visual Resources.** Aesthetic impacts associated with grading.

9.2.2.5 City of San Clemente

The following projects have been identified in the City of San Clemente as potential cumulative projects:

Talega Valley Specific Plan. The Talega Specific Plan Area is 3,510 acres straddling the jurisdictional boundaries of the City of San Clemente and the Talega Joint Planning Authority for the County of Orange. The project provides for approximately 3,800 dwelling units; 112.3 acres for business uses, including business park, commercial, sports complex, hotel, and institutional uses; 1,978.8 acres for open space, including conservancy lands; 271.9 acres for a golf course and parklands; and 152.9 acres for miscellaneous uses (e.g., an elementary school and roads) (Project number 22 on Figure 9-1). Potential impacts from this project were evaluated in a Final Supplemental EIR, which determined that the following impacts would occur:

- **Physical Processes and Conditions.** The proposed project would increase the amount of surface runoff, and would increase levels of urban pollutants carried in surface water. As a result, the developer would construct drainage improvements necessary to accommodate post-development runoff within the site boundaries. Additionally, BMPs would be implemented. Mitigation would reduce impacts to less than significant levels.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The proposed project would alter drainages and affect wetland habitat, result in habitat fragmentation, and remove native vegetation that supports sensitive species. Erosion and sedimentation would increase. Mitigation measures include adherence to CDFG and USACE permit requirements, retention and creation of natural open space areas, a

network of contiguous corridors, and pre-construction raptor surveys. In addition, landscape plans would exclude invasive species and would include setbacks, dense edge screening/buffers, and guidelines for preserving stands of oak woodland resources. An erosion and sedimentation control plan, revegetation, and implementation of BMPs and NPDES requirements would reduce erosion and sedimentation. The mitigation program set forth in the EIR is intended to mitigate impacts to a less than significant level. The project may also be subject to NEPA evaluation by the USACE.

- **Land Use.** The proposed development would potentially affect open space areas, including the Mission Rancho Viejo Land Conservancy; could disrupt the planned foothill transportation corridor; and would potentially conflict with the city's open space requirements, regional Master Plan of Arterial Highways, existing development in Rancho San Clemente, and Forster Specific Plan. In addition, the proposed structures could potentially intrude into the line-of-sight of surrounding ridgelines. Mitigation measures would reduce impacts to less than significant levels.
- **Traffic and Circulation.** The proposed project would contribute to congestion on roadway segments and at intersections. Implementation of various roadway improvements would reduce impacts to less than significant levels.
- **Air Quality.** The project would contribute to long-term air quality impacts resulting from an increase in vehicular trips, as well as short-term impacts from dust associated with construction. The project would develop bikeway, walkway, carpool, and bus facilities, and suppress dust during construction. After mitigation, impacts would be less than significant.
- **Noise.** Future noise sensitive uses would be exposed to unacceptable traffic noise levels, and construction noise could impact adjacent noise sensitive uses. Residential lots and dwellings would be attenuated against existing and projected noise, and compliance with the City's Noise Ordinance would reduce impacts to less than significant levels.
- **Visual Resources.** The project would alter the rural, natural character of the site to an urban and suburban manmade landscape, and grading associated with the project would result in substantial landform alteration. A landscape plan would be developed that conforms to the City's Conservation/Open Space Element, Scenic Highways Element, and Parks and Recreation Element. Additionally, development would conform to guidelines in the Specific Plan amendment related to ridgeline silhouettes. After mitigation, impacts would remain unavoidable.
- **Cultural Resources.** If the project requires excavation for utilities and/or building foundations, or scarification and compaction for fill, the project could intrude into an archaeological site. Preservation *in situ* and protection from permanent structures and plantings would reduce impacts to levels that would be less than significant.
- **Recreation.** The project would create two neighborhood parks which do not meet the City's design criteria. Developer fees would also reduce police and fire service, school, and park impacts. After mitigation, impacts would be less than significant.

Forster Ranch Specific Plan Amendment. Development planning and processing for Forster Ranch has been in progress since 1974. The Final EIR for the Forster Ranch Specific Plan, certified by the City of San Clemente on February 18, 1998, evaluates an amendment to the

Forster Ranch Specific Plan. The principal elements of the amendment include a redistribution and reduction in dwelling units, provision for 192 acres of public institutional uses east of the Primary Ridgeline, the realignment of Avenida La Pata to the east, and the extension of Camino Vera Cruz (Project number 23 on Figure 9-1). The EIR identified the following impacts:

- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** The project would impact the local thread-leaved Brodiaea population.
- **Land Use.** Alteration of land uses planned east of the ridgeline would result in a significant decrease in diversity of uses and potential inconsistency with City directives for the Town Center Area, and would fail to meet minimum open space requirements for the Specific Plan area. These impacts would be reduced to levels considered to be less than significant with mitigation requiring a finding by the City that land uses would be consistent with overall objectives for the Town Center Area Plan and the project modified to provide additional acres of open space to meet the General Plan open space requirement.
- **Transportation and Circulation.** The project would impact traffic circulation. This impact would be reduced to less than significant levels with mitigation requiring an ultimate intersection and access concept plan.
- **Noise.** The project would add to noise levels in the project vicinity. This impact would be reduced to less than significant levels via compliance with mitigation requiring a detailed site-specific acoustical analysis be performed prior to grading, the submission of building specifications describing acoustical design features of the structures, the limitation of construction hours, and compliance with California standards for noise attenuation.
- **Visual Resources.** There would be visual impacts resulting from grading within the 200-foot-wide setback area of the Primary Ridgeline. This impact would be partially mitigated by recontouring of the graded area within the setback zone and revegetation of the graded area with drought tolerant native species.
- **Cultural Resources.** There would be the potential for adverse impacts on archaeological sites. This impact would be reduced to a level considered to be less than significant with adherence to mitigation requiring a certified archaeologist to be present to monitor initial grading.
- **Population, Housing, and Employment.** The project does not include affordable housing. This impact would be reduced to less than significant levels through an agreement with the City to meet affordable housing requirements established in the City's Housing Element.

Marblehead Coastal. On August 5, 1998, the San Clemente City Council certified the Marblehead Coastal Final EIR 95-01 (SCH No. 95091037) and was approved by the California Coastal Commission. The development plan included 436 residential units, 60.4 acres of regional serving commercial uses, 1.0 acre of coastal commercial uses, 9.4 acres of public open space, 49.5 acres of private open space, and 13.6 acres of circulation facilities (Project number 24 on Figure 9-1). Subsequent to certification of EIR 95-01, the City Council recommended modifications that have resulted in four Addendums to EIR 95-01. Addendum No. 4 to Final EIR 95-01 was approved by the City Council on December 9, 2003.

The EIR determined that no impacts would result in the following impact areas: San Onofre Emergency Evacuation Plan, solid waste facilities, and fire protection/emergency medical services. The following environmental impacts were identified in the EIR:

- **Physical Processes and Conditions.** Pollutants could accumulate in detention basins; therefore, periodic removal is necessary. Compliance with the Stormwater Management Plan, basin maintenance plan, and completion of project-level engineering and hydraulic studies would result in impacts that would be less than significant.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Removal of vegetation and disruption of plant communities and habitats would result in remnant habitat fragments that would be isolated islands of low habitat value. On-site mitigation measures would preserve or restore wetlands, sage scrub, needlegrass grasslands, and Blockman's dudleya habitat. Off-site mitigation measures would restore wetlands and would enable the Southern Subregion NCCP habitat reserve system (through funding contributions) to restore/enhance a portion of the NCCP reserve.
- **Transportation and Circulation.** The proposed project would result in a capacity deficiency at Avenida Pico west of I-5 and cumulative level of service impacts at several intersections. Improvements targeted with the City's Regional Circulation Financing and Phasing Program, and contribution to a fair share basis for arterial improvements would reduce impacts to a level that would be less than significant.
- **Air Quality.** The proposed project would create project-related source emissions that would exceed SCAQMD thresholds for CO, ROC, and NOx, which cumulatively exacerbate the existing adverse ambient condition within the South Coast Air Basin. Grading for and construction of the proposed project would also result in significant quantities of fugitive dust and other pollutant emissions. Mitigation would be implemented to reduce these impacts. However, short- and long-term emissions would remain unavoidable.
- **Noise.** Exterior noise levels at nearby houses could exceed 65 dB CNEL both during and after construction of the proposed project. Standard construction mitigation measures, construction of a six-foot-high subdivision perimeter wall, and inclusion of structural components for some two-story developments would mitigate these impacts to a level that would be less than significant.
- **Visual Resources.** Potential park improvements and ball field lighting could result in intrusive ambient light conditions during nighttime periods. Pre-notification of all prospective home buyers would reduce this impact to a level that would be less than significant.
- **Cultural Resources.** The potential destruction of archaeological and paleontological resources by grading and/or excavation is considered a significant impact. Standard cultural resource mitigation measures would reduce these site-specific impacts to a level that would be less than significant.
- **Population, Housing, and Employment.** The proposed project would not result in significant adverse population and housing impacts.

- **Recreation.** The proposed payment of in-lieu park fees and dedication of parkland in excess of the City's Park Acquisition and Development Code would render the increased demand for parks and recreational facilities less than significant.

9.2.2.6 City of Dana Point

The following project has been identified in the City of Dana Point as potential cumulative project:

Dana Point Headlands Development and Conservation Plan. The City of Dana Point released the Final EIR (SCH No. 98051062) for this project in March 1999. The project would develop a maximum of 185 residential units and a 150-room hotel upon 48.6 acres of the Headlands property, and 9 acres of visitor/recreation/commercial land uses (Project number 25 on Figure 9-1). The project would amend the Dana Point General Plan and Local Coastal Plan. The following potential environmental impacts were identified in the Final EIR:

- **Physical Processes and Conditions.** The project would alter existing drainage patterns and the amount of impervious soils and affect the quantity and quality of the runoff. However, impacts would not be considered significant due to existing standard conditions of approval, compliance with General Plan policies, and implementation of mitigation measures.
- **Riparian and Wetland Habitats/Non-Aquatic Biological Resources.** Project development would impact grading, inter-tidal resources, shoreline construction, the Californian grunion, onshore storm drain construction, sand bottom habitat, reef habitat and sensitive species, recreation activities), visitor use, contribute to beach erosion, and impact salinity, spills, and storm drains. Compliance with General Plan policies, mitigation measures, and BMPs would serve to reduce these impacts to less than significant levels. If the project would impact Waters of the U.S., it would be subject to NEPA evaluation by the USACE.

The project would impact coastal sage scrub, wildlife, depredation by feral or domestic cats, night lighting, and noise. These impacts would be reduced to levels considered less than significant via the implementation of BMPs, mitigation measures, standard conditions of approval, and compliance with General Plan policies.

- **Transportation and Circulation.** The project would have a potentially significant impact on the intersection of Del Obispo Street/Dana Point Harbor Drive and Pacific Coast Highway under existing and summer conditions. The impacts would be reduced to a level considered less than significant with the implementation of mitigation measures, standard conditions of approval, and compliance with General Plan policies.
- **Air Quality.** The project would not allow land uses that would generate any changes in climate or atmospheric conditions. Construction operations would result in short-term objectionable odors. Short-term construction impacts would be considered less than significant as a result of compliance with mitigation measures.
- **Noise.** The project would create short-term construction noise and long-term operational noise. These impacts would be reduced to a level considered less than significant with mitigation measures and standard conditions of approval.

- **Visual Resources.** The project would have adverse effect on scenic vistas and alter the existing visual character of the site and its surroundings. Compliance with standard conditions of approval and General Plan policies would reduce impacts to a level considered less than significant.
- **Cultural Resources.** The project would impact fine-grained facies of the San Onofre Breccia, the Monterey Formation, CA-Ora-12, CA-Ora-75, and Native American cultural values. All impacts would be reduced to a level considered to be less than significant with the implementation of standard conditions of approval, compliance with General Plan policies, and mitigation measures.

9.2.2.7 Capistrano Unified School District

The following project by the Capistrano Unified School District has been identified as potential cumulative project:

San Juan Hills High School. The Initial Study and Addendum to Final Revised and Recirculated EIR Whispering Hills Estates for San Juan Hills High School was prepared on September 26, 2002. The Final EIR was certified on December 2, 2002 by the Capistrano Unified School District Board. The Capistrano Unified School District is constructing a sixth high school in the District serving 1,600 students estimated for San Juan Capistrano, as well as the 400 students committed from the second phase of the Ladera project. The high school, which is under construction, is located in the southeastern portion of the City on 72.77 graded acres with a useable area of approximately 43.18 acres (Project number 26 on Figure 9-1). The school is expected to open in August 2006. The impacts associated with this project are as follows:

- **Physical Processes and Conditions.** The high school project would modify the existing “blueline” stream in the East Canyon. Mitigation would include the preparation of a detailed stream impact analysis and incorporation of permit requirements, including BMPs, into the final project design.
- **Riparian and Wetland Habitats/Biological Resources.** The project would result in impacts to wildlife and habitat removal. The project would remove 5.48 acres of riparian vegetation, of which 2.84 acres are under USACE jurisdiction and 3.81 acres are under CDFG jurisdiction. Construction would also impact approximately 70 acres of coastal sage scrub habitat and less than 2 acres of native grassland. Project design features developed as a result of consultation with USFWS resulted in changes in the project design to further avoid, reduce, and mitigate impacts to sensitive biological habitat areas. No changes have occurred to biological resources from the analysis provided in the Final EIR.
- **Land Use.** The project would encroach upon the City’s designated setback of 200 feet from major ridgelines. This would not be considered an impact because Capistrano Unified School District is not bound under state law by Ridgeline Protection Ordinance.
- **Transportation and Circulation.** The project would cause an increase in traffic. Mitigation requiring the Capistrano Unified School District to enter into a license agreement including indemnification of the County of Orange for the use of La Pata Avenue for school access until such time as it is fully improved to its Master Plan of Arterial Highways designation, the construction of road improvements by the school district, and the assignment of a proctor or security guard near the terminus of Camino

Lacouague and the School to prevent cars from using the Camino Lacouague cul-de-sac as a drop off location, would reduce this impact to less than significant.

- **Air Quality.** The project would degrade existing air quality standards and expose sensitive receptors to substantial pollutant concentrations. As stated in the Final EIR, the Capistrano Unified School District would be required to consult with the SCAQMD to ensure schools are not sited in direct proximity to facilities emitting hazardous air emissions. No changes from the Final EIR were identified in the Initial Study and Addendum.
- **Visual Resources.** The project would degrade the existing visual character or quality of the site and its surroundings. As noted in the Final EIR, the high school site would include park buffering and landscape improvements to reduce impacts to a less than significant level.
- **Cultural Resources.** The project could result in impacts to cultural resources. Mitigation measures were designed in the Final EIR to minimize potential impacts to cultural resources in the event any are discovered during construction.

9.2.2.8 Cleveland National Forest

Cleveland National Forest Land Management Plan. The Pacific Southwest Region of the U.S. Forest Service recently published for public review and comment draft revised *Land Management Plans for the Southern California National Forests (Angeles, Cleveland, Los Padres and San Bernardino)* and an accompanying Draft EIS. According to the U.S. Forest Service; the land management plans for each of the four forests are independent. The draft revised land management plans are based on the preferred alternative identified for each of the Forests. Because a portion of the Cleveland National Forest is located within the SAMP Study Area, the revised draft Land Management Plan is relevant to the cumulative analysis. The purpose of the revised land management plans for all four of the southern California National Forests is to:

1. guide all natural resource management activities on the forests,
2. address changed conditions and direction that have occurred since the original plans were adopted, and
3. meet the objectives of federal law, regulation, and policy.

The Preferred Alternative for addressing these purposes in the Cleveland National Forest is Alternative 2. According to the Draft EIS, Alternative 2 was originally developed as the "Proposed Action" for land management revisions and was available for public comment in 2001. Alternative 2 has been modified from earlier versions to provide additional protection for species-at-risk through species management strategies and land management plans design criteria (standards). The primary theme of the Preferred Alternative for the Cleveland National Forest is maintaining biological diversity and ecological integrity while providing a gradual increase in recreation opportunities. Compared to other alternatives, there is a higher level of investment in:

- Reconstruction of existing degraded facilities and the construction of new facilities to accommodate projected recreation demand in an environmentally sustainable way. More intensive user controls are employed that are designed to minimize conflicts with users

and with sensitive environmental resources. Investment increase in mitigation that allows use levels to continue. The effective use of conservation education occurs and Forest Staff would enlist the support of local communities, partners, and volunteers to promote a stewardship ethic and enhance visitor services.

- Avoiding and minimizing effects to species-at-risk with little focus on restoration of habitats. A conservation strategy is employed that focuses on using an adaptive management approach to meet conservation objectives in species-at-risk habitat.

9.2.3 CUMULATIVE IMPACT ANALYSIS

This section analyzes potential cumulative impacts to the environment that could be associated with implementation of the SAMP in concert with the cumulative projects and General Plan development, including the above-listed probable future projects.

The thresholds of significance used in each of the sections to evaluate project-specific impacts would also be applicable to the cumulative evaluation. For the cumulative evaluation, these thresholds would be used to evaluate whether the cumulative projects considered would create a significant impact on the environment.

It is important to note that a quantification of cumulative impacts is not feasible for some impact topics and would be speculative. As identified above, in some cases no environmental document has been prepared and impacts are unknown. Therefore, much of the cumulative evaluation is a qualitative judgment regarding the combined effects of the above-listed projects.

In some cases, application of the identified project mitigation program may reduce the significance of cumulative impacts as well as the project impacts.

The SAMP processing procedures and programs, in and of themselves, would not contribute to cumulative impacts. Therefore, this section evaluates the impacts associated with the cumulative projects in combination with impacts associated with implementation of the RMV Proposed Project and SMWD Proposed Project (Proposed Projects).

9.2.3.1 Physical Processes and Conditions

Hydrology

In the absence of mitigation measures, future development and increases in impervious surface areas within the watersheds could produce adverse cumulative impacts on the hydrologic processes operating within the SAMP Study Area including increases in runoff volume, velocity, and peak discharge rates, and erosion and sedimentation impacts. However, as discussed in Chapter 6.0, the RMV Proposed Project is fully consistent with the watershed-scale Watershed Planning Principles pertaining to physical processes and conditions. This is due in part to the project's WQMP, which is designed to maintain hydrologic integrity. The WQMP is required pursuant to the Orange County DAMP and the Orange County/SDRWQCB MS4 permit. Thus, surface runoff generated by the RMV Proposed Project would be mitigated so that releases to the downstream creeks would correspond to existing peak flow rates and runoff volumes. Specific mitigation would be accomplished through the use of flow duration and water quality basins for the flow control system. It is assumed/anticipated that other proposed future projects within the regional watersheds would be required to incorporate similar hydrologic facilities/flow control programs in order to mitigate these impacts. With implementation of similar flow control

programs, no substantial adverse cumulative impacts should occur with respect to hydrology within the watersheds.

Water Quality

As noted above, the WQMP for the RMV Proposed Project incorporates programs and processes that would be implemented to collect and treat runoff generated within the RMV Planning Area. The individual treatment regimes include a variety of BMPs, including the use of wetlands and detention ponds which would reduce water quality impacts to a level of less than significant. Nevertheless, the RMV Proposed Project may result in increases in pathogen levels (i.e., bacteria counts) above target limits during large storm events. When combined with the discharges of pathogens from other proposed projects in the watershed, the potential exists for a cumulative increase in pathogen levels that may exceed acceptable thresholds.

Geology

The geological/geotechnical constraints that the RMV Proposed Project would encounter pertain to (a) seismic activity, (b) on-site landslides, (c) compressible and expansive soils, (d) erosion and (e) liquefaction.

While geological/geotechnical impacts may be associated with the foreseeable projects, by the very nature of the impacts (i.e., landslides and expansive and compressible soils) the constraints are site specific. The RMV Proposed Project, as well as the other foreseeable projects, would be required to comply with the applicable state and local requirements, including, but not limited to the Uniform Building Code and the Grading Code. As such, project-specific impacts, as well as the impacts associated with other projects, would be reduced to a less than significant level. Seismic impacts are also addressed through compliance with applicable codes and design standards. For these reasons, the contribution to cumulative geotechnical impacts is less than significant.

9.2.3.2 Non-Aquatic Biological Resources

As discussed in Chapter 6.0, prior to implementation of avoidance, minimization, and mitigation measures, the proposed projects would have potentially significant or significant impacts on various biological resources. With implementation of the mitigation program adopted in conjunction with the proposed projects, only the following would remain as unavoidable impacts on biological resources: Linkage K and G; and Cumulative pathogens.

Most of the cumulative projects identified would contribute to cumulative impacts at some level because they would result in the removal of habitat. However, many of the projects that have been identified are either constructed or are near completion. These projects have been required to implement mitigation measures and comply with regulatory permits that have reduced their contribution to cumulative impacts to a level of less than significant. Also, because of their development status, these projects have been considered as part of the baseline for the SAMP, as well as the proposed NCCP/MSAA/HCP. Therefore, the focus of the following analysis is on projects that are currently being considered that would not have been included in the baseline conditions and have not received regulatory permits (i.e., Section 404, Section 7, Section 10(a), and Section 1600 permits). It should be noted that these projects would also be required to obtain applicable permits and implement mitigation measures and conditions of approval that may reduce their contribution to less than significant, including NEPA evaluation by the USACE. This would include the following projects:

SOCTIIP. The EIS/EIR prepared for the SOCTIIP project identified that all of the alternative alignments would result in the removal of natural habitat including, but not limited to, natural grasslands, coastal sage scrub, woodlands, riparian and wetlands, and chaparral. Impacts to sensitive, threatened and endangered plant and wildlife species would also result from implementation of SOCTIIP. According to the Draft SOCTIIP EIS/EIR, Far East Corridor-West Alternative, Far East Corridor-Modified Alternative, and Alignment 7 Corridor-Far East Crossover-Modified Alternative would result in the greatest fragmentation effects of the alternatives examined and would result in cumulative adverse impacts. Tables 9-2 through 9-5 (excerpted from the SOCTIIP DEIS/SEIR) sets forth the impacts by vegetation and species for these alternative alignments.

These three alternatives are the focus of the cumulative impact analysis because they were identified as the likely worst-case scenarios when combined with the Proposed Projects based on their locations relative to existing biological resources. In addition, as noted in the SOCTIIP EIS/EIR, these alternatives “traverse the greatest amount of relatively undisturbed open space” and are likely to have the greatest impact on biological resources.

It should be noted that impacts resulting from implementation of any of the SOCTIIP alternatives may or may not be additive with those of the Proposed Projects. In instances where the impacts of the Proposed Projects and the SOCTIIP overlap (e.g., in Planning Area 3), impacts to species and vegetation are not additive; the same impact would not be counted twice. However, in areas where impacts are different (e.g., different bridge locations for the SOCTIIP crossing and the Cristianitos Road crossing of San Juan Creek), these impacts would be additive.

Ladera Ranch. Development of Ladera Ranch would result in the loss of 2,244.40 acres of annual grassland and 61.44 acres of coastal sage scrub. This loss would substantially affect several sensitive raptor species, as well as several sensitive bird and reptile species. This would remain a significant impact that can only be partially mitigated through the permanent protection and preservation of approximately 1,600 acres of open space including approximately 334 acres of coastal sage scrub, 1,214 acres of grasslands, 7 acres of chaparral, and 28 acres of riparian. The Chiquita Ridge vernal pool also lies within and is preserved by the Ladera Open Space.

Saddleback Meadows. Impacts would include habitat fragmentation, exotic species invasion, lighting, domestic pet intrusion/predation, and increased human intrusion. Impacts to wetlands, coastal sage scrub, and coast live oak woodland would be mitigated for both on- and off-site impacts; a wildlife movement corridor would be incorporated into the tract map. The EIR found that through design features, Standard County Conditions, compliance with CDFG Section 1600, USACE Section 404, USFWS ESA requirements, and other mitigation measures, the impacts would be reduced to a less than significant level. However, any potential impacts to Waters of the U.S. would require NEPA evaluation by the USACE.

**TABLE 9-2
PLANT COMMUNITY IMPACTS BY PROJECT ALTERNATIVE (ULTIMATE)^a**

Community	FEC		CC		A7C		AIO ^b	I-5 ^c
	FEC-M	FEC-W	CC	CC-ALPV	A7C-ALPV	A7C-FEC-M		
Venturan-Diegan Coastal Sage Scrub (2.3)	443.86 (179.63)	422.72 (171.07)	202.45 (81.93)	188.21 (76.17)	216.69 (87.69)	391.02 (158.25)	74.43 (30.12)	21.35 (8.64)
Other Scrub (2.1, 2.4, 2.7)	0.83 (0.34)	0.83 (0.34)	3.57 (1.45)	0.00 (0.00)	0.38 (0.16)	0.83 (0.34)	0.00 (0.00)	2.94 (1.19)
Coastal Sage Scrub/ Grassland Ecotone (2.8)	20.30 (8.22)	16.02 (6.48)	38.83 (15.71)	32.46 (13.14)	23.21 (9.39)	8.67 (3.51)	23.45 (9.49)	0.00 (0.00)
Chaparral/sage Scrub Ecotone (3.1)	20.40 (8.26)	9.88 (4.00)	8.13 (3.29)	8.13 (3.29)	0.18 (0.07)	9.88 (4.00)	5.13 (2.08)	0.00 (0.00)
Chaparral Communities (3.2, 3.3, 3.7, 3.12)	96.72 (39.14)	141.89 (57.42)	48.50 (19.63)	48.50 (19.63)	69.15 (27.99)	158.93 (64.32)	4.86 (1.97)	0.74 (0.30)
Native Grassland (4.2, 4.3, 4.4)	98.04 (39.68)	34.99 (14.16)	10.18 (4.12)	10.18 (4.12)	6.15 (2.49)	23.55 (9.53)	0.36 (0.14)	0.00 (0.00)
Annual Grassland (4.1)	228.48 (92.47)	193.47 (78.30)	525.97 (212.86)	326.14 (131.99)	316.72 (128.18)	172.50 (69.81)	342.27 (138.52)	0.00 (0.00)
Ruderal Grassland (4.6)	43.40 (17.56)	33.67 (13.63)	16.29 (6.59)	6.49 (2.63)	2.16 (0.87)	28.03 (11.34)	27.22 (11.02)	49.25 (19.93)
Vernal Pools, Seeps, and Wet Meadows (5.0)	2.17 (0.88)	1.98 (0.80)	8.71 (3.52)	8.71 (3.52)	4.62 (1.87)	0.09 (0.04)	0.19 (0.08)	0.14 (0.06)
Marsh Communities (6.0)	5.20 (2.10)	4.61 (1.87)	11.51 (4.66)	9.59 (3.88)	10.00 (4.05)	4.38 (1.77)	0.00 (0.00)	0.44 (0.18)
Riparian Herb and Mule Fat Scrub (7.1, 7.3)	2.98 (1.21)	6.50 (2.63)	14.47 (5.86)	13.46 (5.45)	4.69 (1.90)	0.71 (0.29)	5.88 (2.38)	3.50 (1.42)
Other Riparian Communities (7.2, 7.4, 7.5, 7.6, 7.7, 7.8)	21.87 (8.85)	21.45 (8.68)	23.16 (9.37)	23.16 (9.37)	14.67 (5.94)	33.91 (13.72)	4.91 (1.99)	12.38 (5.01)
Coast Live Oak Woodland (8.1)	27.31 (11.05)	98.34 (39.80)	24.67 (9.99)	24.67 (9.99)	33.77 (13.67)	118.59 (47.99)	0.50 (0.20)	0.05 (0.02)
Blue Elderberry Woodland (9.4)	0.37 (0.15)	0.37 (0.15)	0.01 (0.00)	0.01 (0.00)	0.00 (0.00)	0.37 (0.15)	0.72 (0.29)	0.00 (0.00)
Lakes, Reservoirs, and Basins (12.0)	1.69 (0.68)	1.30 (0.53)	0.34 (0.14)	0.34 (0.14)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Water Courses (13.0)	7.07 (2.86)	1.25 (0.51)	19.23 (7.78)	17.73 (7.18)	3.00 (1.21)	1.83 (0.74)	1.51 (0.61)	9.48 (3.84)
Cliff and Rock Communities (10.3)	5.41 (2.19)	5.54 (2.24)	2.49 (1.01)	2.49 (1.01)	0.00 (0.00)	3.98 (1.61)	0.00 (0.00)	0.00 (0.00)
Agriculture (14.0)	125.50 (50.79)	150.06 (60.73)	141.44 (57.24)	141.44 (57.24)	257.82 (104.34)	182.84 (74.00)	9.36 (3.79)	2.62 (1.06)
Developed, Disturbed, Graded (15.0, 16.0)	122.73 (49.67)	115.42 (46.71)	354.20 (143.34)	105.22 (42.58)	116.75 (47.25)	107.47 (43.49)	202.35 (81.89)	1,171.68 (474.18)
Total	1,274.33 (515.72)	1,260.29 (510.04)	1,454.15 (588.49)	966.92 (391.31)	1,079.96 (437.06)	1,247.58 (504.90)	703.14 (284.56)	1,274.56 (515.82)
FEC	Far East Corridor		FEC-M	Far East Corridor-Modified		CC	Central Corridor	
FEC-W	Far East Corridor-West		A7C	Alignment 7 Corridor				
CC-ALPV	Central Corridor-Avenida La Pata Variation							
A7C-FEC-M	Alignment 7 Corridor-Far East Crossover-Modified							
A-10	Arterial Improvements Only		I-5	HOV and Mixed Flow Lanes on I-5				

a. Data represent amount of plant community that will be impacted by each alternative. Units of measure are acres (hectares).
b. Data are the same for the initial and ultimate corridor for "AIO" and "i-5". Numbers shown in both Tables 9-2 and -4 for comparison.

**TABLE 9-3
SENSITIVE PLANT SPECIES IMPACTS BY PROJECT ALTERNATIVE (INITIAL AND ULTIMATE)^a**

Species ^b	FEC				CC				A7C				AIO	
	FEC-M (No. of populations)	FEC-M (No. of Plants)	FEC-W (No. of populations)	FEC-W (No. of Plants)	CC (No. of populations)	CC (No. of Plants)	CC-ALPV (No. of populations)	CC-ALPV (No. of Plants)	A7C-ALPV (No. of populations)	A7C-ALPV (No. of Plants)	A7C-FEC-M (No. of populations)	A7C-FEC-M (No. of Plants)	AIO (No. of populations)	AIO (No. of Plants)
Coulter's saltbush (<i>Atriplex coulteri</i>)	2	9	1	6	12	483	12	483	1	6	-	-	-	-
	2	9	1	6	16	1223	16	1,223	1	6				
Thread-leaved brodiaea (<i>Brodiaea filifolia</i>)	5	54	3	23	-	-	-	-	2	76	3	23	-	-
	6	94	3	56					2	76	3	56		
Catalina mariposa lily (<i>Calochortus catalinae</i>)	4	63	4	63	11	259	11	259	29	2,501	2	14	-	-
	4	79	4	79	11	266	11	266	29	2,501	2	14		
Intermediate mariposa lily (<i>Calochortus weedii</i> var. <i>intermedius</i>)	8	272	6	192	4	732	4	732	9	553	9	587	-	-
	10	323	6	199	4	737	4	737	9	833	9	621		
Southern tarplant (<i>Centromadia [Hemizonia] parryi</i> spp. <i>australis</i>)	1	338	1	338	14	29,887	14	29,887	1	736	1	389	-	-
	1	338	1	338	15	37,484	15	37,484	1	750	1	415		
Many-stemmed dudleya (<i>Dudleya multicaulis</i>)	24	2,724	19	1,659	15	1,122	15	1,122	28	6,055	15	1,196	-	-
	26	2,967	19	1,659	15	1,122	15	1,122	28	6,211	16	1,228		
Beaked spikerush (<i>Eleocharis rostellata</i>)	-	-	-	-	1	1,500	1	1,500	-	-	-	-	-	-
					1	1,500	1	1,500						
Palmer's grappplinghook (<i>Harpagonella palmeri</i>)	6	1,820	3	102	-	-	-	-	17	19,785	1	42	-	-
	6	1,820	3	102	-	-	-	-	17	19,785	1	42		
California juniper (<i>Juniperus californica</i>)	-	-	-	-	1	1	1	1	2	2	1	1	-	-
					1	1	1	1	2	2	1	1		
Small-flowered microseris (<i>Microseris douglasii</i> var. <i>platycarpha</i>)	8	1,702	-	-	-	-	-	-	-	-	-	-	-	-
	8	1,828												
Salt spring checkerbloom (<i>Sidalcea neomexicana</i>)	-	-	-	-	-	-	-	-	1	940	-	-	-	-
									1	1195				
Total	58	6,982	37	2,383	58	33,984	58	33,984	90	30,654	32	2,252	-	-
	63	7,458	37	2,439	63	42,333	63	42,333	90	31,359	33	2,377		

a. Impacts for the initial project alignments are located on top of each cell and for the ultimate impacts are located on the bottom of each cell. The numbers of plants in italics represent the amount of each plant species that will be impacted from each alternative.

b. Number of populations and estimate of number of individuals of sensitive species located within the footprint. Numbers should be used for comparing alternatives, because population numbers will change annually due to climatic changes.

FEC	Far East Corridor	FEC-M	Far East Corridor-Modified	CC	Central Corridor
FEC-W	Far East Corridor-West	A7C	Alignment 7 Corridor	CC-ALPV	Central Corridor-Avenida La Pata Variation
A7C-FEC-M	Alignment 7 Corridor-Far East Crossover-Modified	A-10	Arterial Improvements Only	I-5	HOV and Mixed Flow Lanes on I-5

**TABLE 9-4
SENSITIVE WILDLIFE IMPACT BY ALTERNATIVE^a**

Species	Scientific Name	FEC				A7C	
		FEC-M-Init	FEC-M-Ult	FEC-W-Init	FEC-W-Ult	A7C-FEC-M-Init	A7C-FEC-M-Ult
Fish							
Arroyo chub ^b	<i>Gila orcutti</i>	x	x	x	x	x	x
Reptiles/Amphibians							
Coastal rosy boa ^c	<i>Lichonura trivirgata rosefusca</i>	x	x	x	x		
Coastal western whiptail ^c	<i>Cnemidophorus tigris multiscutantum</i>	x	x	x	x	x	x
Coast patch-nosed snake ^c	<i>Salvadora hexalepis virgultea</i>	x	x	x	x		
Coronado Island skink ^c	<i>Eumeces skiltonianus interparietalis</i>	x	x	x	x	x	x
Orange-throated whiptail ^c	<i>Cnemidophorus hyperythrus beldingi</i>	x	x	x	x	x	x
Red diamond rattlesnake ^c	<i>Crotalus exsul</i>	x	x	x	x	x	x
San Bernardino ringneck snake ^c	<i>Diadophis punctatus</i>	x	x	x	x	x	x
San Diego banded gecko ^c	<i>Coleonyx variegatus abbotti</i>	x	x	x	X		
San Diego horned lizard ^c	<i>Phrynosoma coronatum blainvillei</i>	x	x	x	x	x	x
Silvery legless lizard ^c	<i>Aniella pulchra</i>	x	x	x	X		
Southwestern pond turtle ^c	<i>Clemmys marmorata pallida</i>	x	x	1	1		
Two-striped garter snake ^c	<i>Thamnophis hammondi</i>	x	x	1	1	x	x
Western spadefoot toad ^c	<i>Scaphiopus hammondi</i>	x	x	x	x	x	x
Birds^d							
Common barn owl ^e	<i>Tyto alba</i>					1	1
Cooper's hawk ^e	<i>Accipiter cooperi</i>	2	1	1	1	1	1
Ferruginous hawk	<i>Buteo regalis</i>						
Grasshopper sparrow	<i>Ammodramus savannarum</i>	10	10	6	6	10	10
Horned lark	<i>Eremiphila alpestris</i>					1	1
Loggerhead shrike	<i>Lanius ludovicianus</i>						
Prairie falcon	<i>Falco mexicanus</i>	1	1	1	1		
Red-shouldered hawk ^e	<i>Buteo lineatus</i>	1	1	2	2		
Red-tailed hawk ^e	<i>Buteo jamaicensis</i>	3	3	2	2	2	2
Rufous-crowned sparrow	<i>Aimophila ruficeps</i>	15	16	11	12	10	12
San Diego cactus wren	<i>Campylorhynchus brunneicapillus couesi</i>	8	8	5	5	7	7
Yellow-breasted chat	<i>Icteria virens</i>						
Yellow warbler	<i>Dendroica petechia</i>						
Mammals							
Pallid bat ^c	<i>Antrozous pallidus</i>						
Pocketed free-tailed bat ^c	<i>Nyctinomops femorosaccus</i>						
Western mastiff bat ^c	<i>Eumops perotis</i>	x	x	x	x		

- a. Data represents certain species or amount of species that will be impacted from each alternative.
b. Potential impacts to these fish species (marked with an "x") have been determined likely (but not quantified) if occupied drainages are crossed at any point by a project alternative.
c. These species' presence (marked with an "x") is determined likely (but not quantified) based on the habitats present and data collected from transect/pitfall studies.
d. Impacts to bird species (other than raptors) are represented as the number of observed use areas affected.
e. Refers to the presence of an active nest of the species.
- FEC Far East Corridor FEC-M Far East Corridor-Modified FEC-W Far East Corridor-West
A7C Alignment 7 Corridor 7C-FEC-M Alignment 7 Corridor-Far East Crossover-Modified A-10 Arterial Improvements Only

**TABLE 9-5
SUMMARY OF DIRECT IMPACTS TO THREATENED AND ENDANGERED SPECIES**

Species ⁽²⁾	FEC				CC				A7C				AIO	
	FEC-M Initial	FEC-M Ultimate	FEC-W Initial	FEC-W Ultimate	CC Initial	CC Ultimate	CC-ALPV Initial	CC-ALPV Ultimate	A7C-ALPV Initial	A7C-ALPV Ultimate	A7C-FEC-M Initial	A7C-FEC-M Ultimate	AIO Initial	AIO Ultimate
Thread-leaved brodiaea ^a (<i>Brodiaea filifolia</i>)	5 54	6 94	3 23	3 56	-	-	-	-	2 76	2 76	3 23	3 56	-	-
Tidewater goby ^b (<i>Eucyclogobius newberryi</i>)	x	x	X	x	-	-	-	-	-	-	x	x	-	-
Southern steelhead trout ^b (<i>Onchorhynchus mykiss</i>)	x	x	X	x	-	-	-	-	-	-	x	x	-	-
Arroyo toad ^c (<i>Bufo californicus</i>)	1	2	1	2	-	-	-	-	-	-	1	2	-	1
Peregrine falcon ^c (<i>Falco peregrinus</i>)	-	-	-	-	1	1	1	1	-	-	-	-	-	-
Coastal California gnatcatcher ^d (<i>Polioptila californica californica</i>)	13	13	12	12	10	11	7	8	11	13	15	16	6	1
Least Bell's vireo ^d (<i>Vireo bellii pusillus</i>)	-	-	-	-	1	1	1	1	1	1	-	-	2	-

a. Number of populations (top) and number of individuals (bottom), respectively.
b. Potential impacts to these fish species (mark with an "x" have been determined likely (but not qualified) if occupied drainages are crossed at any point by a project alternative.
c. Impacts are represented as the number of individuals affected.
d. Impacts are represented as the number of observed use areas affected.

La Pata Avenue Gap Closure and Del Rio Extension. The extension of La Pata Avenue would be within and in the vicinity of the eastern portion of the Prima Deshecha Landfill, which is considered to be protected open space and is included within the Lower Chiquita habitat block. The extension of La Pata may fragment the lower portion of this habitat block. Within this area, habitat linkage/wildlife movement corridor K is identified by the Draft Southern Subregion NCCP/HCP Planning Guidelines as providing dispersal opportunities for California gnatcatchers and other species between Chiquita Ridge and gnatcatcher populations in the cities of San Juan Capistrano and San Clemente, as well as eastward dispersal between Trampas Canyon and the Talega development to the Donna O'Neill Conservancy, Cristianitos Canyon, and MCB Camp Pendleton. While gnatcatchers are known to travel distances and will cross roadways, the extension of La Pata could affect this habitat linkage/wildlife movement corridor. Revegetation of the roadway slopes with coastal sage scrub and elimination of lighting will facilitate the continued function of this linkage and could reduce the cumulative impacts.

Ortega Rock. The project would result in the loss of coastal sage scrub and associated wildlife including the cactus wren, less than one acre of jurisdictional wetlands, impacts to the wildlife corridor in Lucas Canyon, and loss of limited number of oak trees (five). Measures were identified to mitigate impacts to biological resources except for impacts to the Lucas Canyon wildlife movement corridor and five cactus wren territories. The latter impacts were identified as unavoidable impacts. Any potential impacts to Waters of the U.S. would require NEPA evaluation by the USACE.

Prima Deshecha Landfill. The County is currently preparing a second amendment to the General Development Plan and a Supplemental EIR to address potential changes in the area of disturbance at the site associated with slope stabilization efforts; project features required for minimization of biological impacts associated with full buildout; development of a conceptual pre-mitigation plan to address all impacts through full buildout; and available project-level information for on-site features such as a desilting basin between Zones 1 and 4. It is anticipated that development of a comprehensive pre-mitigation plan will reduce any identified impacts to a level of less than significance, particularly in the event that such mitigation programs can be complimentary to the Adaptive Management Plan adopted in conjunction with the RMV Proposed Project. No impacts to the major population, important population or *key locations* of gnatcatchers, least Bell's vireo or thread-leaved brodiaea are anticipated to result from the second amendment to the General Development Plan, although impacts to individuals may occur. Upon closure of the landfill, Prima will contribute natural open space and restored habitats to the Lower Chiquita habitat block and contribute to the habitat linkage/wildlife movement corridor K which is identified by the Draft Southern Subregion NCCP/HCP Planning Guidelines as providing dispersal opportunities for California gnatcatchers and other species between Chiquita Ridge and gnatcatcher populations in San Juan Capistrano and San Clemente, as well as eastward dispersal between Trampas Canyon and the Talega development to the Donna O'Neill Conservancy, Cristianitos Canyon, and MCB Camp Pendleton. Any potential impacts to Waters of the U.S. would require NEPA evaluation by the USACE.

San Juan Meadows. The project would result in significant impacts to plant communities as a result of grading and development as well as the potential to disturb existing gnatcatcher populations on the project site. All impacts would be reduced to less than significant levels via adherence to mitigation measures requiring the submission of grading and erosion control plans, a coastal sage scrub mitigation plan, a wetland mitigation plan, and a landscape plan. Any potential impacts to Waters of the U.S. would require NEPA evaluation by the USACE.

Honeyman Ranch. The project would result in impacts to sensitive plant species, tree resources, nesting birds, and sensitive wildlife. The impacts would be reduced to levels considered to be insignificant as a result of compliance with mitigation measures requiring spring focus surveys, the surveying of trees to determine if they meet the City's heritage tree criteria, a nesting survey, a trapping program, and the installation of fencing along the common boundary between homes abutting the adjacent open space to control domestic pet predation. Any potential impacts to Waters of the U.S. would require NEPA evaluation by the USACE.

La Novia Bridge. Construction activities would have the potential to have short-term impact to wildlife movement within San Juan Creek. It is expected that these impacts would be relative minor, short-term in nature, and site-specific. Any potential impacts to Waters of the U.S. would require NEPA evaluation by the USACE.

Cleveland National Forest Land Management Plan. Regarding the Cleveland National Forest revised draft management plan, of particular relevance to the Proposed Projects and associated Adaptive Management Plan are the proposals concerning Wildlife Movement/Landscape Corridors and Invasive Species. The RMV Proposed Project provides protection of identified wildlife movement corridors/habitat linkages. To assure an interconnected landscape from the RMV Planning Area open space to the Cleveland National Forest, the protection of off-site wildlife movement/landscape corridors within Cleveland National Forest is necessary. According to the Draft EIS, Cleveland National Forest activities effecting landscape connectivity are transportation routes and associated functions and lands activities such as changes in land holdings through acquisition, exchange, donation, or conveyance, or purchase exchanges.

Activities associated with lands primarily include acquisition of National Forest System lands. Acquisition of lands occurs through exchange, donation, or purchase. Generally there are no effects from lands acquired, although lands acquired are occasionally in need of restoration, which could have a long-term beneficial effect on species, and may have short-term negative effects from resulting restoration work (i.e., erosion during restoration work, use of herbicides to control undesirable, non-native invasive species, or noxious weeds, use of equipment— direct mortality of animals or plants, and noise). Lands acquired can increase the net habitat for species, but conveyance of land can result in loss of habitat in parcels disposed of, loss of corridors used for migration and dispersal and less ability to manage surrounding National Forest System lands effectively by isolating parts of the National Forest from the rest. Any potential impacts to Waters of the U.S. would require NEPA evaluation by the USACE.

The following effects to landscape connectivity may be associated with transportation corridors (roads) and may cause loss of individuals or habitat: habitat fragmentation, loss of habitat from transportation construction activities: sedimentation, loss of vegetated habitat. (mowing and/or clearing), loss/injury due hazard material spills from equipment, (oil, gas, or chemicals), increased risk of Hazmat spills along transportation corridors, train derailments and truck crashes, increased risk of species removal by forest users via transportation corridors, species disturbance and displacement due to noise, crushing by vehicles, equipment, trucks, and trains, introduction of non-native species (revegetation plantings, domestic animal abandonment, exotic weed seeds transferred by motorized/mechanized vehicles) and increased risk of wildfires and associated loss of habitat and individuals.

Regarding Invasive Species, the Draft EIS notes states:

“Under alternatives 2 through 6, revised forest plan direction would provide a province-wide strategy for invasive species that includes objectives for education, prevention, control, restoration, and research. Revised forest plan standards would decrease the risk

that invasive nonnative plants and animals become established on the National Forests of southern California. There would be less risk that seeds, mulches, or animal feed used on National Forest System land would be contaminated by weed seeds. There would be less risk that vehicles and machines authorized to travel off-road (such as fire engines) would introduce invasive nonnative plants. There would be less risk that special-use permittees would use or dispose of invasive nonnative plants and animals.

In alternatives 2 through 6, invasive nonnative species would continue to persist at many current locations and may also increase in range and abundance. This is due to the current presence of numerous populations of invasive nonnative plants and animals on the forests, the presence of numerous vectors such as people and vehicles, and the continued disturbance of many acres of land. This would occur despite revised forest plan direction, concurrent efforts to control invasive nonnative plants and animals, and increased opportunities to implement control measures. About 60 miles of stream would be treated annually for invasive nonnative species such as arundo and tamarisk, and about 300 acres of uplands would be treated for a variety of invasive nonnative plants.”

Conclusion

Although the individual projects would have varying effects on biological resources as in the case of the SOCTIIP alternative, the combined effects of all the projects together with the SMWD Proposed Project and RMV Proposed Project would result in the following cumulative impacts: (1) reduced connectivity between proposed habitat blocks, (2) more pronounced internal fragmentation of habitat blocks, (3) greater impacts to key locations of planning species, and (4) reduced ability to fully implement the recommendations of the Adaptive Management Plan regarding restoration of coastal sage scrub/valley grassland. Depending on the alternative selected, particularly which SOCTIIP alternative, unavoidable cumulative non-aquatic biological impacts could occur.

9.2.3.3 Land Use

The two potential land use and planning impacts associated with the RMV Proposed Project include (1) potential for residential uses in Planning Area 8 to experience disturbance associated with military operations on MCB Camp Pendleton and (2) the amount of housing provided would be less than what was assumed in regional planning documents and may contribute to a long-term regional housing deficit. A review of the specific cumulative projects, as well as the General Plans, indicates that there would not be any other projects that would result in similar type impacts that, when combined with the Proposed Projects, would result in significant cumulative impacts. Though the Far East Alignment Alternative for SOCTIIP has the potential to impact military operations, the nature of the effects of the RMV Proposed Project on training operations would be of a different nature because there would not be a direct encroachment on MCB Camp Pendleton.

9.2.3.4 Transportation and Circulation

The long-range traffic analysis (year 2025) contained in Chapter 7.3, Transportation and Circulation, of this EIS presents the cumulative traffic conditions because it uses 2025 demographic data. These projections are the basis for long-range transportation planning in Orange County and provide an appropriate cumulative database for long-range analysis purposes.

As identified in Chapter 7.3, Transportation and Circulation, the RMV Proposed Project has the potential for significant project-specific and cumulative impacts to the roadway network. These impacts were fully addressed in the GPA/ZC EIR 589 and supplemented by documentation provided in this EIS. As previously noted, the long-range traffic analyses uses the 2025 demographic data, which includes the cumulative projects identified above, as well as additional development provided for in the local General Plans. Up to 20 intersections, dependent on the scenario, would be cumulatively impacted. The RMV Proposed Project would contribute to these cumulative impacts.

9.2.3.5 Agricultural and Aggregate Resources

Agricultural Resources

The RMV Proposed Project would have impacts on agricultural resources. It would result in the removal of up to 939 acres of Important Farmland. If the San Juan Creek East 3 reservoir site were implemented prior to the December 31, 2008, there would be an impact associated with the removal of land from Williamson Act contracts.

A review of the cumulative projects indicates SOCTIIP, Ladera Ranch, and Robinson Ridge would have the potential to contribute to a cumulative loss of agricultural resources. The SOCTIIP draft EIS/EIR identified conversion of Important Farmland with seven of the ten alternatives being evaluated. Only the I-5 Improvements and the two No Action alternatives would not result in impacts to Important Farmland. The impact ranged from 53 acres with the Arterial Improvements Only Alternative to 424 acres with the Alignment 7 Corridor-Avenida La Pata Variation Alternative. Ladera Ranch resulted in the loss of eight acres of Prime Farmland and if Robinson Ridge is developed as discussed in the Notice of Preparation, the project would convert approximately 60 acres of Important Farmland. Although the RMV Proposed Project and the above listed projects are consistent with respective jurisdictional planning efforts, cumulatively they contribute to a loss of Important Farmland and therefore, a significant cumulative impact on agricultural resources.

Aggregate Resources

As discussed in Chapter 7.4, indirectly, the RMV Proposed Project would have the potential to have an impact on aggregate resources recovery because the area along San Juan Creek, which has been identified by the California Geologic Survey as a mineral resource zone, also supports aquatic resources. The GPA/ZC for the RMV Proposed Project removed the sand and gravel extraction zoning along San Juan Creek. Additionally, implementation of the RMV Proposed Project would result in the loss of aggregate resources at the ONIS site. The RMV Proposed Project would have no effect on aggregate resources associated with the Ortega Rock facility. Implementation of the RMV Proposed project would not preclude operation of this facility. The only other cumulative project identified that would preclude mining operations or result in the loss of availability of a known mineral resource that would be of value to the region is the Arroyo Trabuco Golf Course project, which has been constructed. The golf course project precludes the extraction of certain mineral resources in the Arroyo Trabuco. The resources in the Arroyo Trabuco were also identified in the General Plan and by the California Geologic Survey as a locally important mineral resource zone. Therefore, the RMV Proposed Project, combined with the Arroyo Trabuco Golf Course, would contribute to a cumulative impact on mineral resources in the region. There are no effective and feasible mitigation measures to reduce this cumulative impact.

9.2.3.6 Air Quality

Chapter 7.5 provides an air quality analysis assuming the development of the long-range socioeconomic projections for Orange County. The specific projects being evaluated as part of the SAMP, as well as all of the cumulative projects and the General Plan development, are within the OCP projections. As such, this analysis provides a cumulative analysis. Development associated with the RMV Proposed Project would have significant project-related and cumulative long-range air quality impacts.

9.2.3.7 Noise Conditions

Similar to traffic and air quality, the noise analysis contained in Chapter 7.6 evaluates the long-range development projections. Therefore, long-range project analysis addresses the noise-related cumulative impacts. The RMV Proposed Project would contribute to cumulative noise impacts along the Camino Capistrano, north of Junipero Serra.

9.2.3.8 Visual Resources

The RMV Proposed Project would change visual characteristics and topography of the RMV Planning Area, views from some recreational area vantage points within wilderness parks could be significantly impacted, and there would be an introduction of new sources of nighttime lighting and the potential for glare.

When evaluating cumulative aesthetic impacts a number of factors must be considered. In order for a cumulative aesthetic impact to occur, the proposed elements of the cumulative projects would need to be seen together or in proximity to each other. If the projects were not proximate to each other, the viewer would not perceive them in the same scene. Therefore, even though multiple projects may both be identified as changing the visual character of their project areas, if they are not in close proximity they would not contribute to a cumulative aesthetic impact. The Prima Deshecha Landfill, though in close proximity to the Proposed Projects, would not be visible from the same locations. The landfill is separated from adjacent sensitive views by ridgelines.

The context in which a project is being viewed will also influence the significance of the aesthetic impact. The contrast a project has with its surrounding environment may actually be reduced by the presence of other cumulative projects. If most of an area becomes urbanized, the contrast of the project with the natural surrounding may be less since it would not stand out in contrast as much. However, the community character can become dramatically changed if cumulative projects are added to the visual environment. This also applies to landform impacts.

Four projects have been identified that, when combined with the Proposed Projects, would have the potential for cumulative aesthetic impacts. These are SOCTIIP, Talega Valley Specific Plan, Ladera Ranch, and the San Juan Hills High School. Each of these projects has or would require substantial landform alteration. These projects would contribute to many of the same types of visual impacts as the proposed project.

The SOCTIIP build alternatives, combined with Proposed Projects, would contribute to cumulative visual impacts. SOCTIIP would require substantial landform alteration through an area that is undeveloped or developing. Specific visual impacts, as presented in the SOCTIIP Draft EIS/SEIR, are summarized below:

- The Far East Corridor-Modified Alternative would result in the removal of oak trees in the area encompassing the east hills of Canada Gobernadora, San Juan Creek, Cristianitos Canyon, and the southeast part of the Donna O'Neill Land Conservancy.
- With alternatives Far East Corridor-West, Far East Corridor-Modified, and Alignment 7 Corridor-Far East Crossover-Modified Alternative, a soundwall would be constructed adjacent to the residences in the Talega Planned Community closest to the Avenida Pico access ramps; the soundwall would block views to the east. In addition, these alternatives would result in a significant reduction in visual quality for users of San Onofre State Beach and residents in the San Onofre 1 and San Mateo Point housing areas of Camp Pendleton. In addition, the three alternatives would block views of the ocean at San Onofre Beach and conflict with County of San Diego policies related to scenic highways.
- The Central Corridor Alternative would result in substantially adverse visual impacts for residents to the south and east of San Clemente High School, east of I-5, and in the east part of the Marblehead Inland community as well as motorists on I-5. In addition, this alternative would conflict with policies of the City of San Clemente related to scenic corridors and aesthetic resources (especially hillsides), physically divide the Talega community from the rest of the City of San Clemente, and conflict with policies of the County of Orange related to scenic highways.

When considering the Proposed Projects together with SOCTIIP, there would be a cumulative impact associated with the change in the character of the study area and its surroundings. Combined, the setting will be substantially transformed from a rural, natural area to a suburban environment. The Talega Valley Specific Plan and Ladera Ranch Planned Community are currently under construction. Ladera Ranch is within the SAMP Study Area and north of the development proposed as part of the RMV Proposed Project. Talega Valley Specific Plan is west of the project site. Both of these projects provide a similar type development as what is proposed in the RMV Proposed Project. These projects have also altered the rural, natural character of the area, transforming it into a suburban manmade landscape. These projects extended the urban boundary out to the RMV Proposed Project development area. Consistent in nature with the planned communities is the San Juan Hills High School being constructed immediately adjacent to the project in the City of San Juan Capistrano. The extensive grading associated with the projects has resulted in substantial landform alteration. These projects also introduced lighting into an area that previously had no lighting.

When evaluating these changes to the thresholds of significance, there would be a cumulative significant impact associated with degrading the existing visual character, substantial landform alteration that would adversely affect the visual quality of the area, and the creation of light or glare that extends beyond the physical limits of the project site.

9.2.3.9 Cultural Resources

Impacts associated with the development of the RMV Proposed Project included potential impacts to 16 NRHP-eligible/potentially eligible archaeological sites and 5 historic sites that have been determined to be eligible or potentially eligible for the NRHP. Although the development within the SAMP Study Area, in conjunction with the effects of past projects, other current projects, and probable future projects would result in the disturbance of prehistoric archaeological resource sites and historic sites throughout the region, standard conditions of approval and mitigation measures required for each project would reduce the impacts to less than significant. Testing and data recovery is routinely required of projects prior to and during

grading activities. The site-specific nature of the resources reduces the potential for cumulative impacts. It is through the data recovery process that many artifacts have been discovered. As a result, anticipated development in the SAMP Study Area would not contribute to a significant cumulative impact on cultural resources or result in a significant cumulative loss in regional history or prehistory.

9.2.3.10 Population, Housing, and Employment

As discussed in Chapter 7.9, the Proposed Projects would not have any adverse impacts in this topical area; therefore, it would not contribute to cumulative population, employment, or housing impacts.

9.2.3.11 Recreation

As discussed in Chapter 7.10, the RMV Proposed Project would not have any direct adverse physical impact on recreational facilities due to increased demand on facilities because recreational facilities would be provided as part of the proposed development. As development is implemented, parks would be provided consistent with County of Orange requirements. The cumulative projects, as well as the growth associated with the adopted projections, would result in increased demand for recreational facilities. All of the projects that propose development of new residential units are required by law to either provide parkland or pay fees toward parklands. This would reduce the potential cumulative impact associated with demand for and increased usage of the park system.

Direct or indirect impacts to specific recreational facilities must also be considered. This would be site-specific and only consider cumulative impacts that have the potential to impact the same recreational facilities. Both the RMV Proposed Project and these alternatives would have an effect on the inland portion of San Onofre State Beach. Development of Planning Area 8 would be visible from the inland portion of San Onofre State Beach, although it would have no direct impacts related to physical deterioration of the park. Although only 500 acres of development are proposed in this area, the RMV Proposed Project would extend the edge of urban development closer to the park. This was determined to be a less than significant impact because of the distance of development from the park facilities and because of other urban components in the area (development in the City of San Clemente and I-5). The nature of the impacts associated with the toll road alternatives would be very different because they would have a direct impact on San Onofre State Beach. Considering the difference in the nature of the impacts associated with SOCTIIP and the RMV Proposed Project there would not be a significant cumulative impact on the inland portion of San Onofre State Beach.