

CHAPTER 4

ENVIRONMENTAL EVALUATION OF CLEANUP ACTIVITIES

As described in Section 1.4, Previous Litigation of the Project, the City purchased the Hall property in May 2001 and under the terms of the “Buy/Sell Agreement” allowed commercial nursery operations previously occurring on the site to continue for approximately 1 year. In mid-2002, greenhouse and nursery operations at the project site ceased. Unused, the greenhouses and associated facilities became dilapidated as shown in Figure 4-1. In January 2003, the City hired a private company, West-Tech, to remove greenhouse remnants and debris left on the site from the previous nursery operations. The debris covered the majority of the project site as almost the entire area was previously used for greenhouse operations. The majority of the greenhouses were no longer standing at this point and had fallen into debris piles across the site. The debris generally consisted of wood and metal greenhouse framing materials, plastic, irrigation and steam piping, wooden pallets, planting benches, and old equipment such as old trucks or pieces of trucks. Along with the debris cleanup, other onsite equipment were removed, such as boilers, ASTs, and USTs. All cleanup activities were completed by May 21, 2003.

During that time, a lawsuit was filed with the County of San Diego Superior Court (Court) against the City concerning failure to prepare environmental review of the cleanup activities on the project site. After the City issued a Notice of Completion for the cleanup activities, in connection with that same lawsuit, a motion for a temporary restraining order (TRO) was filed to halt the cleanup activities. The court denied the TRO. Subsequently, a new judge ruled that the City must consider impacts associated with the previous removal of the onsite greenhouses and other cleanup efforts in any future CEQA environmental analysis conducted for the Hall property (San Diego Superior Court Case Number GIN027489).

In accordance with the Court’s ruling, this section includes a description of baseline conditions for each topical area prior to cleanup of the project site (November 2002), actions that were taken during the cleanup, including any measures to reduce the potential environmental effects, and the extent to which cleanup activities would have resulted in significant environmental impacts.

Under pre-cleanup conditions, the project site was covered in dilapidated greenhouse structures that had not been in operation since May 2002. Several structures remained after the cleanup and are currently present at the project site, including five residences, two large metal warehouses, and eight wooden structures. The condition of the remaining structures has not significantly changed since the cleanup of the site. In 2002, surrounding land uses were the same as described under the current



Debris Field 1. November 22, 2002



Debris Field 2. November 22, 2002

2003\3K076 Encinitas Hall Property Community Park\6Graphics\Figures\final revised design\Fig 4-1 cleanup.fh11 (bradyd) 2/6/06

Figure 4-1 Pre-Cleanup Site Condition Photographs

baseline condition, with I-5 to the east, the Santa Fe Plaza commercial area to the north, and primarily single-family residences to the west and south. Vehicular access to the project site included access from Santa Fe Drive along the western side of the Santa Fe Plaza shopping center to the northwest corner of the property, and Somerset Avenue to the southern portion of the site.

4.1 LAND USE AND PUBLIC POLICY

Most of the Encinitas General Plan and zoning policies analyzed for the project in Section 3.1 would not be applicable to the cleanup of the site as the policies direct future long-term land use, not short-term cleanup activities. Land use compatibility analysis involves an evaluation of proposed future land uses, not temporary cleanup activities. Thus, the cleanup of the site did not conflict with the City's long-range planning and land use policies. For these reasons, the cleanup of the site had a **less than significant impact** on land use and public policy under pre-cleanup baseline conditions.

4.2 TRAFFIC AND CIRCULATION

The majority of construction traffic during cleanup activities was generated by the offhauling of debris and recyclables from the project site. Total debris hauled off of the project site, including recycled material, was 2,499 tons. The removal of this material required a total of 209 one-way truck trips. Typical debris hauling required 1 to 6 one-way truck trips per day and on only 5 other days did debris hauling equal or exceed 10 one-way trips per day. The maximum number of truck trips in 1 day was 18, which occurred on April 9, 2003 (West-Tech 2003). No substantial amount of soil was removed from the site during the cleanup activities. All debris hauling occurred between February 6, 2003, and April 30, 2003.

Based on a review of the *City of Encinitas California Contract Documents Specification and Standard Drawing for Hall Property Site Deconstruction/Demolition* (Hall Contract Specifications) and consultation with the City Manager's Office, a specific haul route was designated for the construction traffic during cleanup activities. Trucks accessing the site during cleanup activities were required to enter and leave the site through the alley to the west of the Santa Fe Plaza shopping center and directly to Santa Fe Drive. Trucks were prohibited from using Somerset Avenue or accessing the site through adjacent residential areas.

Given the temporary nature of the truck traffic, the low number of average trips per day, and the requirement that these trips avoid residential streets, this was a less than significant impact to traffic and circulation.

4.3 AIR QUALITY

Cleanup Equipment Emissions

The following equipment was used during the cleanup activities (West-Tech 2006):

- 1 Link-Belt 330 Hydraulic Excavator with thumb
- 1 Link-Belt 330 Hydraulic Excavator
- 1 Link-Belt 4300 Hydraulic Excavator
- 1 Kawasaki 90Z Rubber Tired Loader
- 1 Caterpillar 950F Rubber Tired Loader
- 3 Caterpillar 246 Skidsteer Loader
- 1 Caterpillar 160H Motor Grader with Rippers
- 1 John Deere 410 Backhoe 4X4 with 4-in-1 bucket
- 1 John Deere 210L Skiploader
- 1 Water Truck
- 1 Beast Horizontal Tub Grinder 3800 Model
- 1 Komatsu 200LDX Hydraulic Grab

Cleanup activities also included the use of simple hand tools, such as shovels, hammers, and wrecking bars. While construction activities were limited by contract to daytime hours (7:00 AM to 7:00 PM), typical site cleanup and loading operations occurred between the hours of 7:00 AM and 4:00 PM.

Total debris hauled, including recycled material, was 2,499 tons, which required a total of 209 one-way truck trips, with the maximum of 18 one-way truck trips per day, which occurred on April 9, 2003. Typically debris hauling required 1 to 6 one-way truck trips per day and on only 5 other days did debris hauling equal or exceed 10 one-way truck trips per day (West-Tech 2003). No substantial amount of soil was removed from the site during the cleanup activities. All debris hauling occurred between February 6, 2003, and April 30, 2003.

Cleanup emissions, presented in Table 4-1, have been evaluated based on the preceding information and emission and equipment usage factors contained in the URBEMIS2002 program.

As shown in Table 4-1, emissions associated with the cleanup activities did not exceed the applicable thresholds. There were no long-term operational emissions associated the cleanup activities and no significant change in traffic operations occurred due to the cleanup activities. Therefore, the cleanup activities resulted in **less than significant impacts** on local and regional air quality.

Table 4-1. Estimated 2003 Cleanup Emissions for Hall Properties (Tons/Year)

	Estimated Emissions			
	VOCs	NO _x	CO	PM ₁₀
2003 Cleanup Emissions	0.50	4.44	3.34	0.30
Annual Construction Thresholds	50	50	100	50
Exceedance of Annual Thresholds (Tons/Year)	No	No	No	No

Source: Data modeled by EDAW 2006

Toxic Air Contaminants

Because soil contamination on the project site is likely the result of previous land uses and not from cleanup activities or any subsequent activities, the soil conditions onsite would have been the same as described under the current baseline condition. The chemical inventory of the site prepared by Gradient Engineers found that a small area of petroleum-impacted soil existed on eastern side of the site near four ASTs. AmeriChem removed this soil and the final disposition of this soil is discussed further in Section 4.1.6.

According to the West-Tech Contract Specifications, due to the potential for hazardous materials to be present on the project site, the contractor was required to meet all standard regulations related to hazardous material handling.

Although cleanup of the site involved minimal ground disturbance, movement of the debris had the potential to expose construction workers to contaminants (pesticides, petroleum hydrocarbons, and VOCs) present in shallow soils via inhalation of PM₁₀ and PM_{2.5}, ingestion, or dermal exposure. Additionally, fugitive dust could have migrated offsite as part of debris removal-related activities.

All standard regulations and requirements related to hazardous material and handling procedures, such as Cal/OSHA requirements, were followed during site cleanup. In addition, dust control measures were required at all times during the cleanup project, including:

- spraying down exposed soil with a water truck;
- cleaning paved access areas with street sweepers;
- providing construction access only via paved roadways; and
- cleaning adjacent structures and facilities of dust, dirt, and other debris caused by the onsite operations.

With these measures in place, impacts related to construction worker exposure and the surrounding community to toxic air contaminants were **less than significant**.

Airborne Exposure to Hazardous Building Materials

The former greenhouses may have contained lead-based paint or asbestos, or housed other hazardous substances. Prior to any cleanup activities performed by West-Tech, the City hired Gradient Engineers to inventory all known hazardous materials on the site. The inventory included special testing and consideration of asbestos and lead abatement measures. The results found that asbestos and lead-based paint were identified in the onsite residences that were not affected by the cleanup activities and still remain on the property. Several poles from the greenhouse structures were tested for lead and none was found (Gradient Engineers 2002). Several wooden poles that had recently been replaced at the greenhouses were constructed of pretreated lumber. Due to chemicals in the pretreated poles, those poles were not mulched and many were taken for reuse by Raspy Growers. All standard regulations and requirements related to asbestos and lead-based paint removal and handling procedures, such as SDAPCD Rule 361.145, were followed. With these standard measures in place, impacts related to exposure to hazardous building materials were **less than significant**.

4.4 NOISE

As described in Section 4.1.3, typical construction equipment was used for the demolition activities on the project site. While construction activities were limited by contract to daytime hours (7:00 AM to 7:00 PM), typical site cleanup and loading operations occurred between the hours of 7:00 AM and 4:00 PM.

Total debris hauled, including recycled material, was 2,499 tons, which required a total of 209 one-way truck trips, with the maximum of 18 per day, which occurred on April 9, 2003. Typically debris hauling required 1 to 6 trips per day and on only 5 other days did debris hauling equal or exceed 10 trips per day (West-Tech 2003). No substantial amount of soil was removed from the site during the cleanup activities. All debris hauling occurred between February 6, 2003, and April 30, 2003.

While no noise measurements were conducted during cleanup activities, construction equipment noise is well understood and documented. Thus, construction equipment noise characteristics presented in Section 3.4 are accurate for recreating noise generation associated with site cleanup activities. Cleanup activities were generally centered over 300 feet from the nearest residences, except for activities at the proposed dog park area, which were centered approximately 185 feet from the nearest residence. Based on modeling methodologies described in Section 3.4, the average hourly noise levels from cleanup activities at the property boundary were 68 dBA L_{eq} from typical locations and 73 dBA L_{eq} from activities at the proposed dog park area. While peak noise levels ranged from 75 dBA to 89 dBA at the property boundaries, these peak noise levels lasted only a short period,

typically less than a minute, and did not represent a violation of the City Noise Ordinance or a significant increase in noise levels. Thus, short-term impacts associated with the site cleanup were **less than significant**.

No long-term noise sources were associated with the site cleanup activities. No new stationary noise sources were created and no new vehicle traffic was generated. However, site cleanup did remove debris from the project site that may have diffused some noise generated by traffic on I-5. However, as noise measurements were not taken prior to the site cleanup, traffic noise modeling was conducted to determine the change in conditions. Modeling was based on existing traffic volumes and all conditions used for the existing conditions model; debris piles were added to the model as 2-foot-high structures oriented east to west throughout the site. Modeling indicates noise levels at residences west of the project site have experienced a 0.5 to 1 dBA increase over noise levels before cleanup of the site. Based on the threshold of significance defined in Section 3.4, this increase is not considered significant. Thus, long-term impacts associated with the site cleanup were **less than significant**.

4.5 AESTHETICS AND LIGHTING

Under pre-cleanup conditions, the project site was covered in debris fields and greenhouses in disrepair, as shown in Figure 4-1. Views of the project site from the surrounding area were the same as described under current conditions; the viewshed area included the southbound lanes of I-5 from Santa Fe Drive to Mackinnon Avenue, the Mackinnon Avenue bridge over I-5, and adjacent residences to the south and west of the property.

Cleanup of the site resulted in a dramatic change to visual character of the site, removing the greenhouses and debris fields that created a negative visual context. Following cleanup, the site is now distinguished by the lack of debris and a sense of visual openness. This change in composition of the site's visual pattern is more compatible with the surrounding area and would not be considered a substantial adverse visual impact. The cleanup is consistent with the City's policy to seek improvements to the Scenic Visual Corridor and resulted in a **less than significant impact** to visual resources.

No new sources of light were created during cleanup of the site and thus impacts related to light and glare were **less than significant**.

During the cleanup of the site, the presence of cleanup equipment and vehicles (large trucks, bulldozers, etc.) would have been evident to the area residents and motorists. Although the visual change would not be substantial in comparison with the debris and other elements of the site's pre-cleanup visual character, the cleanup equipment and vehicles may have created a short-term negative visual effect. However, these short-term impacts were **less than significant** because the cleanup-

related effects did not result in a permanent change to the visual environment or the removal of an important visual resource.

4.6 HAZARDOUS MATERIALS

Under pre-cleanup baseline conditions, the project site was covered in dilapidated greenhouse structures that had not been in operation since May 2002. Because some of the greenhouse structures were built prior to 1978, they may have contained lead-based paint and/or asbestos.

Because soil contamination on the project site is likely the result of previous land uses and not from cleanup activities or any subsequent activities, the soil conditions onsite would have been the same as described under the current baseline condition. In general, no soils were exported offsite during cleanup of the project site with the exception of a small amount of petroleum-impacted soil that was removed from the site and disposed of properly, as described later in this section.

Because of the potential hazardous materials that may have been present on the project site, the contractor was required to meet all standard regulations related to hazardous material handling. A contingency plan was prepared to establish procedures in case of a release of hazardous materials or hazardous waste to the ground, air, or water. Any contracted employee who managed hazardous waste was required to be trained to ensure compliance with the regulations, and all staff at the job site were required to be able to respond effectively to emergency situations, including chemical spills.

Health Risks to Temporary Construction Workers from Soil Contamination

Although cleanup of the site involved minimal ground disturbance, movement of the debris had the potential to expose construction workers to contaminants (i.e., pesticides, petroleum hydrocarbons, VOCs) present in shallow soils via inhalation (of fugitive dust), ingestion, or dermal exposure. Additionally, fugitive dust could have migrated offsite as part of debris removal-related activities.

All standard regulations and requirements related to hazardous material and handling procedures, such as Cal/OSHA requirements, were followed during site cleanup. In addition, dust control measures were required at all times during the cleanup project, including:

- Spraying down exposed soil with water truck;
- Cleaning paved access areas by street sweepers;
- Providing construction access only via paved roadways; and
- Cleaning adjacent structures and facilities of dust, dirt, and other debris caused by cleanup and removal operations.

The chemical inventory of the site prepared by Gradient Engineers found that a small area of petroleum-impacted soil existed on eastern side of the site near four ASTs. The impacted soil, approximately 10 cubic yards, was properly removed by AmeriChem and transported offsite for disposal at a certified waste facility (City of Encinitas 2002b).

During cleanup activities, no unexpected or unknown hazardous materials or hazardous features (i.e., USTs, boiler piping, etc.) were encountered or impacted. Mulching of untreated lumber was done in order to reuse and reduce waste; however, pretreated lumber was not mulched. Dust suppression measures were implemented at all times during the cleanup activities. A water truck was present onsite and all mulch piles were sprayed and kept moist. With these measures in place, impacts related to exposure of construction workers and the surrounding community to contaminants were **less than significant**.

Groundwater Contamination

As described for the current baseline and in the hazardous material assessments prepared for the project, contaminants from historical use of the site are limited to shallow soils and there is a low likelihood that they have migrated to the groundwater beneath the site. Only minimal ground-moving activities associated with the debris removal occurred during cleanup of the site. The site was watered as needed to keep dust settled. This measure would not have resulted in a quantity of water that could pool and seep into the groundwater. Thus, cleanup of the site resulted in a **less than significant impact** with regard to potential groundwater contamination.

Hazardous Building Materials

The former greenhouses may have contained lead-based paint, asbestos, or other hazardous substances. Prior to any cleanup activities performed by West-Tech, the City hired Gradient Engineers to inventory all known hazardous materials on the site. The inventory included special testing and consideration of asbestos and lead abatement measures. The results found that asbestos and lead-based paint were identified in the vacant residence that was not affected by the cleanup activities. Several poles from the greenhouse structures were tested for lead and none was found (Gradient Engineers 2002). As noted previous, lumber that was found to be pretreated was not mulched. Any hazardous materials were then subsequently removed by AmeriChem. All standard regulations and requirements related to hazardous material and handling procedures, such as Cal/OSHA requirements, were followed. All hazardous waste was placed immediately in an approved container and moved by a certified transport to a preapproved container disposal location. With these measures in place, impacts related to exposure to hazardous building materials were **less than significant**.

Hazardous Materials Use

Cleanup of the site did not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials as no unusual use of hazardous materials occurred. Therefore, the potential for release of hazardous materials into the environment was **less than significant**.

4.7 HYDROLOGY AND WATER QUALITY

Under pre-cleanup conditions, because the site was covered in greenhouse structures, there was a greater amount of impervious surfaces on the site than under current conditions, or proposed for the Hall Property Community Park project. These impervious surfaces would have affected the amount and velocity of runoff and drainage patterns onsite. No extensive ground disturbance or grading took place during the cleanup that would otherwise have affected drainage patterns onsite.

Sediment and Pollutants in Storm Water Runoff

Cleanup of the project site resulted in the exposure of bare soil that could have increased the potential for erosion and the amount of sediment entering the flow of runoff during a storm event. As described under current conditions, an increase in the amount of soil and sediment in runoff from the project site could impact downstream water quality in the sensitive habitat and wetland areas along Rossini Creek and in San Elijo Lagoon. In addition, pollutants from construction vehicles and temporary sanitary waste facilities had the potential to result in a significant impact to water quality.

As part of the cleanup, standard BMPs were incorporated into construction/cleanup practices to minimize the amount of sediments and pollutants in storm water runoff. The City was required to prepare, implement, and comply with a SWPPP that required various BMPs, including the following measures:

- Spill prevention training and education for workers;
- Application of hydroseed/bonded fiber mixture to site;
- Preservation of existing vegetation and permanent landscaping in place where feasible;
- Placement of gravel bags, gravel rolls, and/or geotextile bags around all inlets and discharge points;
- Installation of check dams and riprap for velocity reduction where necessary;
- Installation of detention basins for sediment capture;
- Installation of silt fencing and gravel bags for perimeter protection;
- Installation of diversion channel for runoff;

- Secondary containment and coverings on onsite stockpiles;
- Location of sanitary waste facilities away from inlets;
- Secondary containment and k-rail protection around onsite chemical storage; and
- Offsite tracking reduction through stabilized (asphalt) construction access.

Where appropriate and feasible, the SWPPP measures have remained in place to minimize erosion and sedimentation in runoff from the site between cleanup of the site and start of construction on the proposed Hall Property Community Park. For example, the hydroseeded areas are mowed and maintained and the gravel bags, etc. were left in place. With implementation of the measures required by the SWPPP, potential impacts to water quality from sedimentation and pollution resulting from cleanup of the site were **less than significant**.

Drainage

Cleanup of the project site would have reduced impervious surfaces created by the greenhouse structures from more than 30 acres to 2 acres under current conditions. The removal of over 30 acres of impervious surfaces during site cleanup would have resulted in decreased storm water runoff and reduced peak flow volumes downstream as pervious surfaces were exposed. Thus, cleanup of the site resulted in **less than significant impacts** with regard to increased drainage volumes.

4.8 GEOLOGY AND PALEONTOLOGY

The geologic, seismic, soil, and paleontological conditions that existed on the project site in the pre-cleanup baseline are identical to the current baseline as no extensive soil removal or ground disturbance took place and geologic conditions and the paleontology of the area would not otherwise naturally change in the matter of several years.

Cleanup of the site did not involve construction of any new structures onsite. As such, concerns regarding risks to property from unstable soils, seismic activity, lateral spreading, subsidence, liquefaction, or collapse would not be applicable. Minimal ground disturbance occurred during the cleanup activities and there were no cuts of major slopes; thus, cleanup of the site would not have contributed to creating unstable soils or increased the risk of landslides.

Erosion

As discussed under current baseline conditions, erosion hazards characteristic of the soils found on the project site are low; however, at times during cleanup, bare soil was exposed and could have been vulnerable to increased runoff and erosion. As described above, standard BMPs were incorporated

into construction practices to minimize erosion and the loss of topsoil. The City was required to prepare, implement, and comply with a SWPPP, which required measures to reduce erosion from runoff (see the previous subsection 4.1.7, Hydrology and Water Quality, for a list of measures taken). With implementation of these measures required by the SWPPP, erosion impacts from cleanup of the site were **less than significant**.

Paleontological Resources

As described under current conditions, there is a low potential for significant fossils to occur on the project site (PaleoServices 2005). The cleanup of the site resulted in minimal ground disturbance and did not extend beyond the modern soil horizon into the weathered bedrock of the Bay Point Formation, where there is a remote possibility of fossils to occur. Because ground disturbance did not extend into these strata, and no fossils were identified during the site cleanup, impacts to paleontological resources were **less than significant**.

4.9 BIOLOGICAL RESOURCES

The biological resources that existed on the project site in pre-cleanup conditions occurred in a highly disturbed setting. The amount of biological resources found onsite during pre-cleanup conditions would be equal to or less than what is seen in the current conditions. The City of Encinitas Draft Subarea Plan shows no sensitive resources located on the project site. The Draft Subarea Plan does delineate the offsite wetland area associated with Rossini Creek (City of Encinitas 2001).

As in current baseline conditions, ruderal habitat associated with disturbed land was the dominant vegetation type. While the ruderal habitat that exists onsite in current baseline conditions consists of both native and nonnative plants, the ruderal habitat of pre-cleanup conditions was composed mainly of nonnative species. No sensitive species were known to exist on the project site during the pre-cleanup phase. The native forbs found onsite today are the result of hydroseeding, which was a component of project cleanup activities. The condition of trees seen on the project site post-cleanup is the same as pre-cleanup. Though minimal ground-disturbing activities occurred onsite during cleanup, no trees were removed or damaged. The removal of greenhouses and scattered materials during cleanup activities has resulted in an increased amount of disturbed land suitable for ruderal habitat.

Biological resources on the project site during pre-cleanup conditions were fewer than those seen under current conditions due to the disturbed setting and amount of debris on the site. No sensitive plant or animal species occurred on the project site under pre-cleanup baseline conditions. Therefore, the cleanup of the site resulted in **less than significant impacts** on biological resources under pre-cleanup baseline conditions.

4.10 CULTURAL RESOURCES

Under pre-cleanup baseline conditions, the five residences, warehouses, and wooden structures remaining onsite were in the same condition as seen under the current baseline state. As described in Section 3.10, none of these buildings are considered significant or eligible for the CRHR. The project site was highly disturbed under the pre-cleanup conditions; no other potentially historic structures existed onsite.

No significant cultural resources have been removed since the pre-cleanup baseline conditions, and based on the survey conducted under current conditions no archaeological resources were expected to occur on the project site. No cultural resources were identified during the cleanup activities, and the cleanup activities included only minor ground disturbance of the project site. Thus, cleanup of the site had a **less than significant impact** to cultural resources.

4.11 PUBLIC SERVICES AND UTILITIES

Under pre-cleanup conditions, the provision of public services by the various responsible agencies was the same as under current conditions. EFPD (fire protection); San Diego Medical Enterprise (emergency medical); County of San Diego Sheriff's Department (police); and the EUSD, Cardiff School District, and SDUHSD all served the project area. Utility services and connections to the project site were also the same as described under current conditions. SDG&E (electricity and natural gas), SDWD (water), San Elijo Water Reclamation Facility (recycled water and wastewater), City of Encinitas Public Works Department (storm drains), and EDCO (solid waste) all provided services to the project site under pre-cleanup conditions.

Cleanup of the site involved removal of the dilapidated greenhouses and other debris on the project site. This cleanup effort did not require additional staff or equipment, nor the construction of new or expanded facilities to provide fire protection, emergency medical services, school services, or police protection services or to maintain existing service ratios, response times, or other performance measures. The cleanup effort would not have had an effect on school services or park use in Encinitas.

As part of the cleanup effort, SDG&E disconnected and removed electrical wire connections to the individual buildings prior to the cleanup effort. This was standard procedure for disconnection and would not have resulted in significant impacts to the environment nor result in the alteration of SDG&E electrical facilities offsite.

4 Environmental Evaluation of Cleanup Activities

The demand for natural gas, water, and wastewater service during the cleanup effort was minimal and did not exceed the capacity of existing facilities. As described previously in Section 4.1.7, the cleanup would not have increased peak storm water flows and thus would not have had a significant adverse effect on storm water facilities.

The City hired West-Tech to remove the debris from the project site. Prior to any cleanup activities performed by West-Tech, the City hired Gradient Engineers to inventory all known hazardous materials on the site and AmeriChem to remove them. All hazardous waste was placed immediately in an approved container and moved by a certified transport to a preapproved container disposal location.

The contract for the cleanup services included several provisions to reduce the amount of solid waste to be transported to a landfill. A waste management plan was prepared to meet the City's waste diversion requirements. West-Tech was required to meet the goal of diverting at least 50 percent of the total construction debris generated by the cleanup project via reuse or recycling and provide documentation of these diversion efforts. Trash tonnage from the cleanup activities totaled 923 tons and recycling tonnage totaled 1,576 tons. The recycling tonnage exceeded the trash tonnage by 652 tons (West-Tech 2003). Thus, the recycling diversion requirement was met and exceeded during the cleanup operation. EDCO provided transport and disposal of debris and various companies took different materials for recycling and reuse. All debris resulting from the cleanup activities was removed as it accumulated and was not left on the project site for extended periods. For these reasons, the site cleanup resulted in a **less than significant impact** with regard to public services and utilities.

4.12 AGRICULTURE

Prior to the City's purchase of the Hall property in May 2001, the site was used for flower production and nursery operations. Most of the flower cultivation occurred in containers, with only a small portion of the plants cultivated in the soil. Commercial nursery operations continued for approximately 1 year following the City purchase.

Section 3.12 of this EIR addresses the conversion of the project site from agricultural purposes to nonagricultural uses under current conditions. The purpose of the cleanup activities was to remove debris and trash from the project site. No actions were taken during the cleanup to develop the site or commit the site to nonagricultural use. For this reason, impacts to agricultural resources on the project site due to cleanup activities were **less than significant**.

4.13 POPULATION AND HOUSING

Five residences existed onsite under pre-cleanup conditions, the same number as under current conditions. At the time, four of the residences were leased to tenants by the previous owner of the property. The fifth residence was occupied by the former property owner. These tenants were not displaced by the cleanup activities. None of the residential homes on the project site were removed or altered during the cleanup activities.

The temporary employment of workers to clean up the site did not create a major new source of jobs that would bring residents to the area. The cleanup of the site was performed by West-Tech and AmeriChem, both of which are private companies that had operated previously in the Encinitas area. The cleanup work would not create the need for additional housing or result in population growth in the region or within Encinitas. For these reasons, cleanup of the site did not create direct or indirect population growth or the need for new housing and thus resulted in a **less than significant impact** to population and housing.

This page intentionally left blank.

CHAPTER 5

CUMULATIVE IMPACTS

5.1 INTRODUCTION

According to CEQA incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (PRC §21083(b)(2)). “Cumulative impacts” refer to two or more individual effects which, when considered together, are considerable or compound or increase other environmental impacts (CEQA Guidelines, §15355). The individual effects may be changes resulting from a single project or a number of separate projects. For example, the combination of noise and dust generated during construction activities can be additive and can have a greater impact than either noise or dust alone. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related reasonably foreseeable projects. For example, the wastewater treatment demand generated by a project may not be significant when analyzed alone; however, when analyzed in combination with the wastewater demands of approved or proposed projects, the wastewater demands may exceed the resource capabilities of the service agency, resulting in a significant cumulative impact. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines §15130(b) states that “the discussion [of cumulative impacts] need not provide as great of detail as is provided for the effects attributable to the project alone.” Section 15130(b) further states that a cumulative impacts discussion should be guided by the standards of practicality and reasonableness.

5.2 CUMULATIVE FORECASTING METHODOLOGY

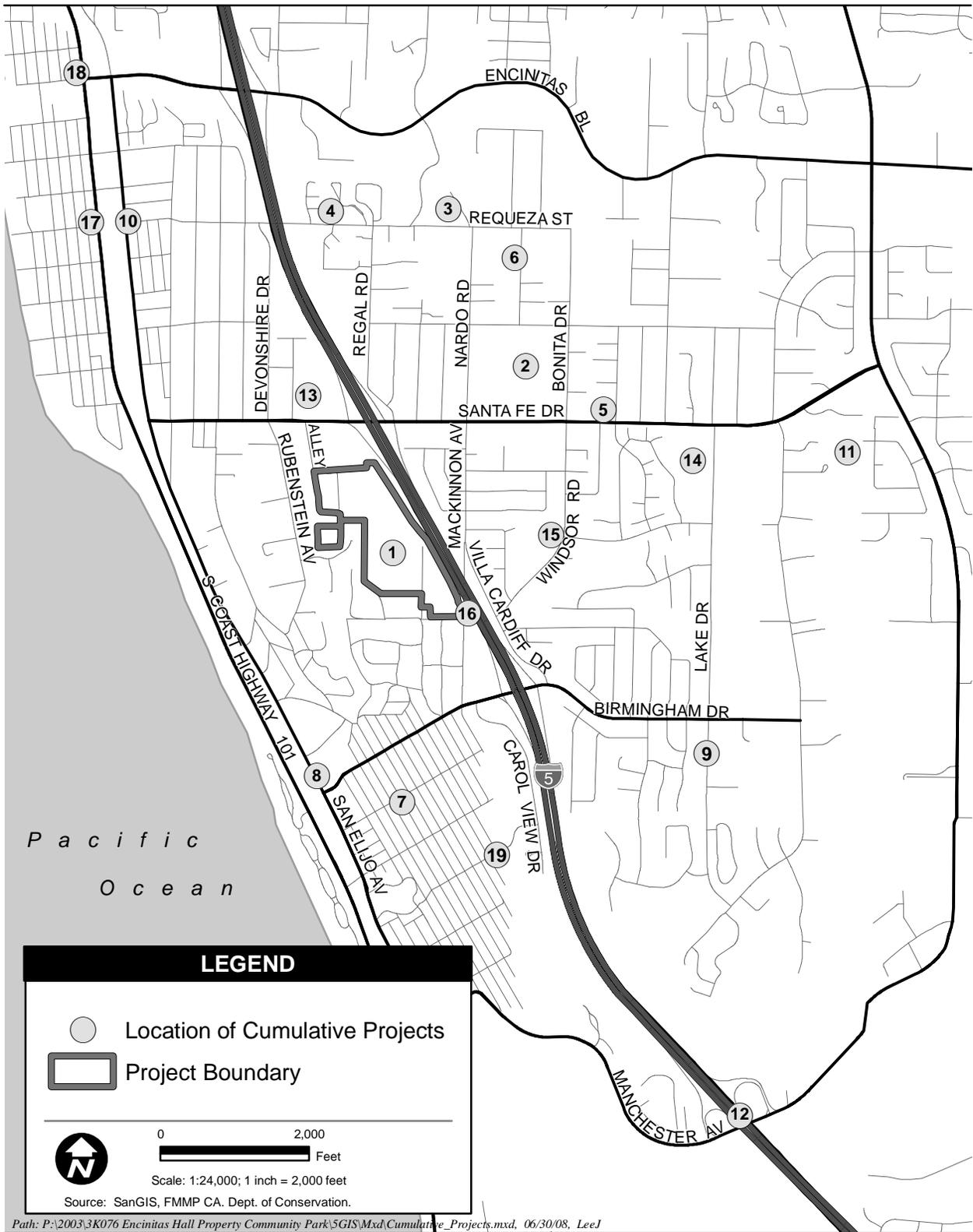
CEQA Guidelines allow for the preparation of a list of past, present, and reasonably anticipated future projects as a viable method of determining cumulative impacts. Also allowed is the use of projections contained in adopted general plans or related planning documents. The discussion in this section utilizes both approaches as applicable: (1) an initial list and description of all related projects followed by a discussion of the effects that the proposed projects, taken together, may have on each environmental category of concern, such as traffic, noise, biology, etc.; and (2) analysis of the constancy with local and regional long-term planning documents such as the General Plan, SANDAG

traffic forecasts, SDAPCD RAQS, etc. Consistent with CEQA, this discussion is guided by the standards of practicality and reasonableness.

5.3 LIST OF RELATED PROJECTS

Through discussions with City staff, it was determined that there are ~~16~~ 19 other projects in the project area that could potentially contribute to cumulative impacts. Of the 19 projects, 16 were known at the time the NOP was issued and preparation of the EIR began, and three additional projects have been added to the list since the Draft EIR was published. These projects are described below and the location of each project is depicted in Figure 5-1, Cumulative Projects. The projects listed are in proximity to the project site. However, some issue areas, such as air quality, require a more regional approach for cumulative analysis. The geographic scope considered for cumulative impact analysis is described at the beginning of each issue area.

1. **Cleanup of the Hall Property** occurred in early 2003 and is detailed in Chapter 4 of this EIR. The cleanup activities generally consisted of removal of debris remaining onsite from past greenhouse operations and included wood and metal greenhouse framing materials, plastic, irrigation and steam piping, wooden pallets, planting benches, and old equipment such as old trucks or pieces of trucks. Along with the debris cleanup, other onsite structures were demolished and or removed, such as boilers, ASTs, and USTs. All cleanup activities were completed by May 21, 2003.
2. **San Dieguito Academy High School Improvement** project involves demolition, reconstruction and renovation of a number of aging classroom buildings. A total of seven new buildings would be constructed and a total of 11 buildings would be either demolished or removed from the campus. In addition, modernization of the computer laboratories, the media center, the student services building, various classrooms, the administration building, and the gymnasium/locker rooms are proposed. No increase in the number of students is anticipated. Additional traffic (primarily deliveries) will likely be generated by the 10,000-square-foot office/warehouse building to be constructed on the school site. The high school is located east of I-5 on the northwest corner of the Santa Fe Drive/Bonita Drive intersection. The project proposes to add a total of 239 parking spaces.
3. **San Dieguito Sunset Continuation High School Expansion** includes the addition of nine prefabricated classrooms, one set of restrooms, a recreational facility, and parking spaces. The high school is located east of I-5 on the northwest corner of the Requeza Street/Nardo Road intersection.
4. **Taylor Woodrow Homes** Tentative Map is a 38 single-family home project that was recently completed. The site is located north of Requeza Street with I-5 to the west and Villa Blanca to the



**Figure 5-1
Cumulative Projects**

east. When the NOP was issued and the EIR analyses were initiated, this project was under construction and has since been completed.

5. **Evergreen Drive Tentative Map** is a proposed nine single-family home residential project. The site is located east of I-5 between Nardo Road and Bonita Drive on Santa Fe Drive. [Since the initiation of this EIR, the project has been constructed.](#)

6. **Bracero Road Tentative Map** is a proposed seven single-family home residential project. The site is located east of I-5 on Bracero Road. [This project is currently under construction.](#)

7. **Cardiff Specific Plan** is a planning area with proposals to reinforce community characteristics and align them with future uses, provide development standards for the revitalization of commercial corridors, reinvest in public infrastructure, and encourage flexible land use planning. The specific plan area is located south of Mozart Street, north of Norfolk Drive, east of San Elijo Avenue, and west of New Castle.

8. **San Elijo Commercial Building** is a 14,739-square-foot commercial building currently under construction. The site is located west of I-5 at the intersection of San Elijo Avenue and Birmingham Drive. [Since initiation of this EIR, this project has been constructed.](#)

9. **Lake Drive Tentative Map** is a proposed seven single-family home project currently under construction. The site is located on Lake Drive, south of Birmingham Drive. [Since initiation of this EIR, this project has been constructed.](#)

10. **Vulcan Avenue Duplexes** consists of three duplexes located south of Vulcan Avenue and west of I-5. [Since initiation of this EIR, this project has been constructed.](#)

11. **Granite Homes Tentative Parcel Map** is a proposed four single-family home project. The site is located east of I-5 on Crestview Drive.

12. **Manchester Interchange** is a proposal to upgrade the I-5 interchange ramps, improve the ramp intersections with Manchester Avenue, and widen the I-5 freeway between Manchester Avenue and Lomas Santa Fe.

13. **Scripps Memorial Hospital Improvement** is a proposal to expand the current hospital site. Plans include a three-story, 275,000-square-foot parking structure; three-story, 68,000-square-foot medical office building; one-story, 11,000-square-foot emergency department expansion; three-story, 78,000-square-foot critical care building; two-story, 22,000-square-foot central energy plant, and a

three-story, 92,000-square-foot acute care building. It is anticipated that the project would be developed in phases. The site is located west of I-5 on the north side of Santa Fe Drive.

14. **General Plan Amendment 05-184** is a proposal to amend the General Plan, Local Coastal Land Use Plan, and Zoning Map for three parcels covering 11.3 acres to redesignate the land use and zoning from RR1 (Rural Residential with 0.51 to 1.00 dwelling units/acre) to R15 (Residential with up to 15 dwelling units/acre). The project is located on the southwest corner of Santa Fe Drive and Lake Drive. The existing RR1 designation would permit low-density detached single-family residential units with a minimum 1-acre lot size and maximum density of 1.0 unit per net acre. The proposed R15 designation would allow for higher-density residential development including single- or multiple-family uses at a maximum density of 15.0 units per net acre. No development is proposed at this time, although such a proposal could be anticipated in the near future for some or all of the parcels. [Since initiation of this EIR, the application for this project has been withdrawn.](#)

15. **Sanderling Waldorf School Expansion** is a project to increase the school's capacity to accommodate an additional 110 students, consisting of preschool and kindergarten through 4th grade. The school is located east of I-5 on Windsor Road.

16. **I-5 North Coast Corridor Project** is a regional freeway corridor improvement project proposed by Caltrans. Caltrans is currently in the process of planning and designing improvements associated with the I-5 North Coast Corridor project (commonly referred to as the I-5 widening project). The project proposes to add two managed lanes in each direction and additional freeway and auxiliary lanes in some locations. As part of the widening project, most of the interstate interchanges within Encinitas would require modifications, some necessitating a complete rebuilding of overcrossings or undercrossings to accommodate the widened roadway. Project construction would most likely include reconstruction of the Mackinnon Avenue bridge to expand the bridge to accommodate the new freeway lanes as well as align the bridge perpendicular with the freeway. This project construction would also include improvements at both the Santa Fe Drive and Birmingham Drive on- and off-ramps and associated intersections.

17. [Pacific Station Tentative Map is a project to construct a mixed-use development containing 106,121 square feet of building area. The project would include 41 residential units and retail, restaurant, and offices uses. A two-level underground parking garage is also proposed for the site. The 1.39-acre project site is located on the east side of South Coast Highway 101, between E and F streets.](#)

18. [Encinitas Artist Lofts Tentative Map is a project to construct a mixed-use development consisting of 19 residential condominium units and 12,716 square feet of commercial use floor area,](#)

including 50 onsite parking spaces. The project would propose to demolish approximately 9,412 square feet of retail commercial buildings and two residential units consisting of 1,417 square feet. The 0.77-acre project site is located on the west side of North Coast Highway 101 between A and B streets.

19. Edinburg Tentative Map is a proposed subdivision of 1.08 acres and construction of six single-family detached units and six condominium units. The project would provide two-car garages for each unit and five guest parking spaces. The project site is located at 2315 and 2323 Edinburg Avenue in the Cardiff-by-the-Sea community.

5.4 IMPACT DISCUSSION

5.4.1 Land Use and Public Policy

The list of projects provided in Section 5.3 was used for the cumulative analysis of Land Use and Public Policy. Evaluating projects in proximity to the project site was necessary to determine if there would be any cumulative changes to the overall land use that characterizes the area.

As is typically the case for land use considerations, land use issues associated with the project are site and project specific. A cumulative impact could be anticipated if there was an anticipated potential conflict with existing land uses that could, in combination with other potential conflicts, result in a larger cumulative land use conflict. In addition, if there was a current or planned physical division of a community that would be exacerbated by the proposed project, a potential cumulative impact might occur. No such land use impacts have been identified for the proposed project. As there is no other development proposed in the immediate vicinity of the project site that could cause such an impact and there are no existing or anticipated physical divisions, the Hall Property Community Park would not significantly contribute to a land use or public policy impact.

5.4.2 Traffic and Circulation

The traffic and circulation section of this EIR (Section 3.2) includes a cumulative future analysis to consider long-term forecasted conditions that take background growth, future anticipated development, and the proposed project into account. Cumulative conditions were assessed within the context of future traffic conditions occurring in the years 2010 and 2030. The Year 2010 and 2030 scenarios evaluate the traffic impacts that would result with the addition of anticipated traffic from the proposed park, anticipated traffic from ~~the 16-14 of the~~ cumulative projects listed in this section, and future regional traffic volume forecasts to the existing traffic volumes. Table 5-1 presents cumulative project traffic generation. The cleanup of the Hall property was not included in the cumulative

analysis as these trips occurred in 2003 and would have no impact on cumulative traffic conditions. The I-5 widening project would expand and improve the interstate and associated roadways near the project site and result in better traffic conditions; however, because the lane configurations and intersections geometry are still under development and the project would not generate trips, this project was not included in the cumulative traffic analysis and roadways were analyzed in their current conditions. This results in a conservative analysis. However, project traffic mitigation did account for the I-5 widening project to ensure consistency between the proposed park mitigation and potential roadway alterations that could result as part of the interstate widening.

Table 5-1. Cumulative Projects Trip Generation Summary

Cumulative Project Number	Project	Daily Trip Ends (ADT)	AM Peak Hour		PM Peak Hour	
			In	Out	In	Out
2	San Dieguito Academy High School	120	12	4	6	11
3	San Dieguito Sunset Continuation High School	104	41	27	11	25
4	Taylor Woodrow Homes Tentative Map	380	9	21	27	11
5	Evergreen Drive Tentative Map	108	3	6	8	3
6	Bracero Road Tentative Map	84	2	5	6	3
7	Cardiff Specific Plan	=	=	=	=	=
8	San Elijo Commercial Building	295	37	3	8	31
9	Lake Drive Tentative Map	84	2	5	6	3
10	Vulcan Avenue Duplexes	36	1	2	3	1
11	Granite Homes Tentative Map	48	1	3	3	1
12	Manchester Interchange	=	=	=	=	=
13	Scripps Memorial Hospital	5,620	306	76	179	417
14	GPA 05-184	1,170	28	66	82	35
15	Sanderling Waldorf School Expansion	400	68	0	0	72
	Total	8,449	510	218	339	613

The cumulative project list was updated after completion of the traffic analysis and resulted in the addition of three new projects (numbered 17, 18, and 19) that were not included in the cumulative traffic analysis. Review of the three new projects indicate that the cumulative traffic analysis would not have substantially different results with the addition of these new cumulative projects. The main reason the cumulative traffic analysis would not result in different conclusions is due to the location of the three new projects and their distance from the proposed project (see Figure 5-1). The newly added projects are all at least 0.5 miles from the project site and located on roads that do not serve as main distribution roadways to or from the proposed project site. Due to location, the traffic generated by the three new cumulative projects would not typically overlap with park traffic during peak hours and cause affected roads or intersections to further degrade.

~~Using these methodologies for cumulative impact assessment, the traffic analysis indicates several significant cumulative traffic impacts. Refer to Section 3.2 for a full discussion of these significant cumulative traffic impacts.~~

As detailed in Section 3.2, the cumulative traffic analysis identified several significant cumulative traffic impacts. These impacts are summarized in Table 5-2. Also shown in Table 5-2 is the result of the mitigation to improve intersection operation. All cumulative impacts are fully mitigated in the 2030 scenario; however, in 2010 there are four impacts that cannot be fully mitigated because the City cannot ensure the measures would be implemented prior to park operation. If the mitigation were implemented prior to park operation, the traffic impact would be mitigated to less than significant. For this reason, the following four intersections are considered to have significant unmitigated cumulative impacts in the 2010 scenario.

- I-5 Southbound Ramps/Santa Fe Drive
- Villa Cardiff Drive/Birmingham Drive
- I-5 Northbound Ramps/ Birmingham Drive
- I-5 Southbound Ramps/ Birmingham Drive

With respect to parking, cumulative effects were considered using all projects provided in the cumulative project list. As described in the descriptions of the cumulative projects, all large projects in the vicinity of the park project, such as the Scripps Memorial Hospital Improvement or San Dieguito Academy High School Improvement, include onsite parking. Other smaller commercial or residential cumulative projects include parking spaces in accordance with City requirements for the type of use being developed. Because other cumulative projects accommodate individual parking needs, there would not be significant cumulative secondary traffic impacts associated with parking.

5.4.3 Air Quality

The cumulative analysis for air quality is based partially on the cumulative project list included in Section 5.3 as well as larger planning documents. A regional projection approach using large scale planning documents is considered when evaluating potential cumulative impacts to the overall regional air basin while the list of projects is utilized when analyzing localized cumulative impacts such as fugitive dust.

Table 5-2. Cumulative Traffic Impacts

2010 + Project						
Intersection or Street Segment	Peak Hour	2010 + Project		Mitigated 2010 + Project		Fully Mitigated?
		Delay ¹	LOS	Delay ¹	LOS	
Alley/Santa Fe Drive	PM	39.8	E	11.3	B	YES
I-5 Southbound Ramps/Santa Fe Drive	AM	>100	F	22.5	C	NO ³
	PM	>100	F	23.7	C	
	SAT	>100	F	22.5	C	
Villa Cardiff Drive/Windsor Road	AM	75.3	F	22.2	C	YES
Villa Cardiff Drive/Birmingham Drive	AM	>100	F	33.4	C	NO ³
	PM	>100	F	23.0	C	
	SAT	>100	F	25.0	C	
I-5 Northbound Ramps/ Birmingham Drive	AM	>100	F	24.7	C	NO ³
	PM	>100	F	23.5	C	
	SAT	>100	F	23.2	C	
I-5 Southbound Ramps/ Birmingham Drive	AM	>100	F	23.1	C	NO ³
	PM	68.0	F	23.1	C	
	SAT	>100	F	23.2	C	
Santa Fe Drive – Mackinnon Avenue/ Nardo Road to Windsor Road/Bonita Drive	--	V/C=1.06 ² Δ=0.06	F	N/A	N/A ⁴	YES
2030 + Project						
Intersection or Street Segment	Peak Hour	2030 + Project		Mitigated 2030 + Project		Fully Mitigated?
		Delay ¹	LOS	Delay ¹	LOS	
Alley/Santa Fe Drive	PM	39.8	E	10.3	B	YES
I-5 Southbound Ramps/Santa Fe Drive	AM	>100	F	25.2	C	YES
	PM	>100	F	28.6	C	
Villa Cardiff Drive/Windsor Road	AM	>100	F	29.2	D	YES
Villa Cardiff Drive/Birmingham Drive	AM	>100	F	25.9	C	YES
	PM	>100	F	54.6	D	
I-5 Northbound Ramps/Birmingham Drive	AM	>100	F	36.2	D	YES
	PM	>100	F	30.2	C	
I-5 Southbound Ramps/Birmingham Drive	AM	>100	F	30/3	C	YES
	PM	>100	F	27.9	C	
Scripps Hospital Driveway/Santa Fe Drive	PM	>100	E	29.4	C	YES
Santa Fe Drive – Santa Fe Plaza Driveway to I-5 Southbound Ramps	--	V/C=0.92 ² Δ=0.03	E	N/A	N/A ⁴	YES
Santa Fe Drive – Mackinnon Avenue / Nardo Road to Windsor Road / Bonita Drive	--	V/C=1.14 ² Δ=0.10	F	N/A	N/A ⁴	YES
Birmingham Drive – I-5 Northbound Ramps to Villa Cardiff Drive	--	V/C=0.95 ² Δ=0.17	E	N/A	N/A ⁵	YES

¹ Delay is for intersections only. Street segments are measured in V/C.

² The measurement for this street segment is V/C.

³ These impacts are not considered fully mitigated as the City cannot ensure they will be implemented prior to park operation. If the mitigation were implemented prior to park operation, the traffic impact would be mitigated to less than significant.

⁴ Mitigation is an individual intersection improvement.

⁵ The daily street segment impact is considered mitigated by improvements to adjacent intersections.

Δ denotes an increase in the V/C ratio.

N/A: Not applicable, the daily street segment impact is considered mitigated by the improvement to the adjacent intersections.

The air quality section of this EIR (Section 3.3) includes a cumulative future analysis to consider long-term forecasted air quality conditions. The impact analysis is based on cumulative traffic conditions in the project area. The project would incrementally add to air pollutants being generated throughout the region. However, as shown in that analysis, the proposed project would also not result in violations of the state or federal ambient air quality standards. As described in Section 3.3, though the project proposes a different land use than shown in the General Plan, the proposed project would be consistent with the SDAPCD RAQS, which is a long-range air quality planning document. The proposed park would generate less air pollutants than the residential land use shown in the General Plan and, therefore, is considered to be consistent with the SDAPCD RAQS. Thus, the proposed project operation would not significantly contribute to cumulative regional and local air quality.

It is possible that construction activities from other cumulative projects may be occurring at the same time as the proposed park development, such as the proposed hospital expansion project. [However, eight of the 19 cumulative projects are either complete, under construction, or withdrawn and thus would not create fugitive dust during the same time period as the park project construction.](#) As detailed in Section 3.3, a potentially significant impact due to air contaminants in dust during construction might occur, but is mitigable. This potential impact results from past agricultural chemical use on the site and other cumulative projects would not necessarily have the potential to create this type of impact unless the site was recently used for agricultural purposes and included the use of chemicals. Dust generation during the project would be controlled through BMPs as required in Mitigation Measure Air-1 and would not exceed the SDAPCD thresholds. Other projects would also be required to implement BMPs to control dust generation and construction emissions. [The City has requirements for dust suppression in their Grading Ordinance \(23.24.400\), the Municipal Code \(Chapter 23.24\), as well as the Storm Water Management Ordinance \(Chapter 20.08\). In addition, fugitive dust tends to be a localized impact with dust particles settling out of the air unless there are high winds.](#) Therefore, the proposed project and other projects listed in this chapter would not result in a cumulatively considerable impact to air quality due to construction emissions.

[As detailed in Section 3.3.3 of this EIR, the impact of air pollutants on park receptors due to the park's proximity to the Interstate 5 freeway is not considered to be significant. The implementation of the I-5 widening project would move some traffic closer to the park, resulting in a potential increase of exposure to toxic pollutants. This increase would be more than offset by the following factors: the widening will also move some traffic further from the park; the widening will reduce daytime traffic congestion resulting in increased speeds that will reduce individual vehicle emissions; and it is anticipated that the widening will not be operational for many years, when diesel truck emissions will be significantly reduced as a result of existing regulatory requirements. The other cumulative projects are generally residential, small scale commercial, or expansions of existing facilities and these types of projects would not be substantial contributors of toxic air pollutants during construction or operation.](#)

[For these reasons, there would not be a significant cumulative impact related to exposure to toxic air pollutants.](#)

5.4.4 Noise

Noise is a local rather than regional issue, and thus the use of the cumulative project list projects is appropriate for cumulative noise analysis. The type of noise associated with the projects on the cumulative project list, typically residential and commercial developments is generally noise generated by increased traffic on local roadways. The projection of future noise conditions in the planning area included in this EIR uses the traffic analysis to appropriately consider the cumulative traffic noise conditions in the planning area. To predict the increase in noise associated with traffic on the analyzed roadways, traffic noise levels were calculated using the FHWA's traffic noise prediction model for baseline plus project conditions (Section 4.4.4 and 4.4.5 of the Noise Analysis, Appendix E). This analysis indicates that the proposed project, in combination with other projects, would not cause a significant cumulative traffic noise impact along area roadways.

The operation of the park would result in significant but mitigable noise impacts to area residents as described in Section 3.4. The nearest cumulative project to the proposed project would be the Scripps Hospital expansion on the north side of Santa Fe Drive. Due to the distance (over 800 feet) that would attenuate typical operational noise and intervening shopping center that would serve as a physical barrier that blocks noise, operation of this future project would not combine with the park noise to result in a cumulatively considerable noise impact to the surrounding area. Other cumulative projects are at a distance (approximately 2,000 feet or more) that typical operational noise would not travel far enough to cumulatively impact sensitive receptors in the area. [In addition, the types of projects on the cumulative list are generally residential, small scale commercial, or expansions of existing school facilities. These types of projects do not generate excessive noise.](#)

Noise would be generated during construction of the proposed project and would be audible at surrounding residential areas. Similar to operational impacts, the Scripps Hospital expansion would potentially occur during the same time period as the park and would also generate noise. However, because of distance and intervening shopping center, construction noise would be attenuated and physically blocked and would not result in a cumulative impact. [Eight of the remaining cumulative projects have been or are currently under construction and expected to be completed prior to commencement of the proposed project and thus would not overlap with the proposed park construction to generate a cumulative noise impact.](#) Other cumulative projects are at a distance (approximately 2,000 feet or more) that they would not create noise impacts to sensitive receptors in the local area of the proposed project.

5.4.5 Aesthetics and Lighting

The list of cumulative projects was used for evaluation of potential cumulative visual impacts. The geographic area encompassing the cumulative projects is considered adequate to assess aesthetic impacts as the visual environment of the area is localized due to relatively flat terrain that does not allow for expansive views of large areas. In this type of setting, the visual change resulting from a new project generally impacts only the surrounding area and does not have regional implications.

The Hall Property Community Park property is located on a relatively undeveloped site primarily surrounded by residential development to the south and west with a commercial and business area to the north and a major transportation corridor with I-5 to the east. The proposed project would provide increased public participation of the passive and active uses of recreational parks within Encinitas. However, as discussed, this project has been designed to integrate with the surrounding environment with the continuation of open space and landscaped buffers for the adjacent residential homes. The proposed project has been designed to maintain the natural topography and reduce the visual impact of the park development with minimal grading. These and other design features ensure that the project would visually integrate with the existing surrounding areas. For these reasons, the incremental change to the visual character that would result from implementation of the proposed project is a less than significant cumulative impact to visual resources.

Projects on the cumulative project list are generally residential, small scale commercial, or expansions of existing facilities. These projects are compatible with their surrounding uses and would not appear visually intrusive or out of place. The projects would not substantially change the overall visual character of the area.

Furthermore, although the proposed project would result in a visual impact regarding light and glare trespass on adjacent properties, there is no other development proposed in the immediate vicinity of the proposed project that would compound this anticipated impact. For this reason, no additional cumulative visual impacts are anticipated.

5.4.6 Hazardous Materials

While some hazardous conditions are very site specific, other types of hazards, such as hazardous materials contamination have the potential to impact an area beyond a project boundary. The generation of hazardous conditions can result from not just the implementation of recently constructed or future projects, but can result from long standing land uses, such as gas stations or dry cleaners. Because of the possibility for large areas to be affected by hazardous conditions, the cumulative study area considered for this topic included a mile radius surrounding the project site.

Ground-disturbing activities during construction at the Hall Property Community Park could potentially expose construction workers to contaminated soil conditions, asbestos, or lead-based paint. These impacts would be reduced to a less than significant level with the mitigation measures specified in Section 3.6. The potential for exposure to hazardous dust and conditions during construction would be project and site specific.

Previous cleanup work on the Hall property (cumulative project number 1) was completed in May 2003. As detailed in Chapter 4 of this EIR, the potential for hazardous materials on the project site was known and cleanup activities were required to meet all standard regulations regarding hazardous material handling. Because all appropriate hazardous material safety regulations were adhered to and the work was completed more than 5 years ago, this project would not combine with the proposed project to create a significant cumulative hazardous material impact. ~~None of the known cumulative projects would have similar impacts that could lead to a more severe cumulative impact.~~

The hazardous materials assessments for the proposed project included research and evaluation of hazardous materials in the project vicinity (see Appendix H, Phase I Assessment, pages 22-33). Record searches of the appropriate regulatory databases were conducted for a 1.25 mile radius surrounding the project site. The results of the record search found that there were numerous permitted hazardous material facilities, registered USTs and AST, and cases of leaking USTs within the 1.25 mile radius and including the Hall property. Several facilities in the project vicinity were reported to have had releases of hazardous materials/waste or petroleum products. These releases include the dry cleaners located adjacent to the site in the Santa Fe Shopping Plaza, the reported and known releases of hazardous materials/wastes or petroleum products at the Scripps Memorial Hospital located approximately 700 feet northwest of the site (case closed status), and a Shell Service Station located approximately 800 feet northeast of the site. The groundwater gradient from both the hospital and gas station is known to be northwesterly, which is away from the project site. Complete details of the adjacent and nearby hazardous materials releases and conditions are provided in Appendix H. The overall conditions result in a low likelihood that a recognized hazardous environmental condition exists at the site or vicinity as a result of these reported releases based factors such as case closed status, media affected (e.g., soil contamination only), depth to groundwater, etc.

The use of hazardous materials on the project site would result in less than significant effects and would not contribute to a cumulative impact. Though existing and future businesses are anticipated to continue to use hazardous substances in the rest of Encinitas and the surrounding area, ~~if appropriate regulatory requirements are followed, no unusual or significant impacts related to the storage, handling, and use of hazardous materials are anticipated~~ all businesses that use hazardous materials exceeding the exempt amount are required to have a current Hazardous Materials Business Plan

(Business Plan) on file with DEH. The Business Plan must be updated annually and describes the anticipated transport, use, storage, and disposal of chemicals, health risks, and spill prevention and emergency management measures (DEH 2006a). The hazardous material storage permit process and DEH Hazardous Materials Business Plan review would ensure the proposed Hall Property Community Park project and other existing and future projects in the area would not create a significant hazard to the public or the environment through the routine transport, use, storage, or disposal of hazardous materials.

5.4.7 Hydrology and Water Quality

Water quality and hydrology impacts can have widespread effects throughout an entire watershed, hydrologic unit, and additional downstream locations. For this reason, the analysis of potential cumulative impacts to water quality and hydrology includes the cumulative project list as well as the general area located downstream of the project site along Rossini Creek. Rossini Creek traverses through areas that are essentially developed with urban uses and include very little vacant area that could be developed in the future.

The Hall Property Community Park project would have the potential for a significant impact from the degradation of water quality as a result of soil runoff from construction activity on the project site. Under cumulative conditions, which would include additional construction and development of impervious surfaces on areas that may have previously been undeveloped resulting in additional runoff, the potential for degradation would be greater and the project's incremental effect would be potentially significant. However, with implementation of BMPs as mitigation, this cumulative impact would be reduced to less than significant and the project's contribution would not be cumulatively considerable. In addition, all development projects would be required to adhere to City regulations to control runoff, including the City's BMPs Manual, Grading Ordinance, and Storm Water Management Ordinance, which would reduce the potential for cumulative impacts.

The project could potentially cause downstream scouring and erosion in Rossini Creek from increased runoff from the project site. Implementation of mitigation measures such as a vegetated detention basin, dry stream feature, infiltration strips, and water-efficient irrigation systems to reduce discharge rates would ensure that Rossini Creek does not experience increased peak flow volumes and that the project would not result in a substantial contribution to a cumulative effect. In addition, other development projects would be required to comply with the City's Storm Water Management Ordinance and JURMP, which require measures to minimize storm water runoff and would further reduce the potential for cumulative hydrology impacts.

The project could result in increased non-point source pollution of area surface waters in area runoff. Increased pollutant loads could occur in surface runoff from the parking areas, roadways, rooftops, landscaped areas, and other surfaces where pollutants and debris can collect. The pollutant load in runoff could be exacerbated under cumulative conditions. However, implementation of Mitigation Measure Hydrology-3 identified in Section 3.7, [including appropriate storage areas, filtration of parking lot runoff, dry streambed features, biofiltration areas, and dog park maintenance would serve to reduce the potential for pollutants to leave the project site in runoff. With incorporation of all features and measures outlined in Section 3.7, the project would not create water quality or hydrology impacts to downstream resources including Rossini Creek or San Elijo Lagoon, and thus the project would not result in a cumulatively considerable impact to water quality. In addition, all other development projects within Encinitas would also be required to adhere to City regulations related to pollutant control in runoff, such as the Storm Water Management Ordinance and BMPs Manual, which would further reduce runoff volumes and pollutant loads. Thus, no cumulative impact would result from the proposed project in combination with other projects along the Rossini Creek corridor.](#) ~~this impact would be reduced to less than significant and would not be cumulatively significant.~~

5.4.8 Geology and Paleontology

Though geology is a regional topic with geologic features sometimes spanning large areas, impacts to soils and geology are typically very site specific. Construction of a project in extreme geologic conditions, such as very steep slopes, may have the potential to impact surrounding areas. However, this situation is generally avoided by required conformance with the UBC and other applicable regulations and there are no extreme geologic features in the project vicinity. For this reason, the cumulative study area for this topic included the list of cumulative projects surrounding the project site.

~~The analysis of geology and seismic hazards takes into consideration cumulative impacts of project development.~~ The geology and soils issues associated with the Hall Property Community Park project are site and project specific. [The potential soils and geology impacts from the proposed project would affect only onsite development. The project is not located adjacent to any cumulative projects that would significantly impact soil stability or geologic conditions. Implementation of the proposed park project along with the other projects included on the cumulative projects list would not create unstable geologic conditions in the surrounding area or impact soils offsite of each individual project area.](#) No geologic or soils conditions exist around the project site that could, in combination with other potential geologic and soils effects, result in a larger cumulative impact.

[Paleontological resource issues associated with the Hall Property Community Park are site and project specific. There are no known paleontological resources that exist at the project site and there is a low](#)

potential that any would be found during ground disturbing activities. The project would result in significant impacts only as a result of the potential for disturbing unknown subsurface resources. Similar impacts could occur as a result of the development of any projects within the cumulative study area. However, if any paleontological resources at the project site were discovered during construction, work would be halted and fossil salvage would be completed as detailed in Mitigation Measure Paleontology-1. By recovering and documenting all significant fossils and information associated with a paleontological site, the project would not result in the loss of significant paleontological resources and thus would not contribute considerably to a cumulative paleontological resource impact.

5.4.9 Biological Resources

The geographic scope for considering cumulative biological impacts cannot be defined by jurisdictional or other political boundaries as sensitive habitats and species can have widespread ranges and can vary for individual species. For this reason, the biological cumulative impact analysis includes the Rossini Creek corridor as well as the projects included in the cumulative projects list.

Project development, including the effect of the removal of trees at the project site and visual, noise, and soil disturbances during project construction is not anticipated to have a cumulatively considerable impact on the sustainability of biological resources in the region. The mitigation measures suggested in the biological resources section would ensure that the project would not contribute to cumulative biological resource impacts. As described in the cumulative hydrology and water quality section, there would not be a cumulative impact to Rossini Creek due to the proposed project in combination with other potential developments along the creek corridor. Required BMPs and other regulatory requirements applicable to the proposed project and other projects along the creek corridor would limit runoff and prevent associated pollutants from entering the creek and damaging the riparian habitat. Potential noise or visual affects from overlapping construction of the proposed project and other cumulative projects would not create a cumulative impact to nesting raptors or other sensitive species as there are no known projects in close enough proximity to create substantial combined noise or visual impacts.

5.4.10 Cultural Resources

Cultural resources are known to exist along the southern California coastline and are not limited to any one specific locale. For this reason, the geographic scope for consideration of cumulative impacts to cultural resources generally includes the coastal zone of northern San Diego County, roughly between La Jolla on the south, San Onofre on the north, and inland several miles to the foothills of the Peninsular Range (i.e., approximately Vista and San Marcos). Prehistoric groups

occupying this area focused to a large degree on littoral settings, particularly those associated with the lagoons at the mouths of the coastal drainages. Changes to these lagoon habitats during the past several thousand years appear to have affected human land use and settlement, creating archaeological patterns somewhat distinct from those of the county's southern coast.

Cultural resource issues associated with the Hall Property Community Park are site and project specific. There are no known cultural resources that exist at the project site nor are any anticipated to be found. The project would result in significant impacts only as a result of the potential for disturbing unknown subsurface archaeological resources. Similar impacts could occur as a result of the development of ~~the projects in the cumulative list~~ any projects within the cumulative study area. ~~However, none of these projects are directly adjacent to the Hall property and thus the proposed project and the cumulative projects could not affect the same resources. If~~ However, if any resources at the project site were discovered during construction, they would be evaluated and a data recovery plan would be implemented to excavate and collect data associated with the site. By recovering and documenting all significant information associated with an uncovered cultural site, the project would not result in a loss of cultural resources and thus would not contribute considerably to a cumulative cultural resource impact.

5.4.11 Utilities and Public Services

The analysis of utilities and public services contained in this EIR (Section 3.11) takes account of the potential effects of the Hall Property Community Park project along with other growth in Encinitas. Utility and service providers within Encinitas have been directly contacted as part of this environmental review, and they have assisted in providing an analysis of the project's effects on their systems in consideration of other planned projects.

Because it would not be feasible to account for all projects on an individual basis, the use of regional growth forecasts allow for public service providers to determine projected demand and assess whether they have the necessary resources to provide adequate service. For example, the SDCWA considers regional growth in their Urban Water Management Plan. Projected water demands for the region include municipal and industrial, as well as agricultural use. The SDCWA's water supply planning is based on underlying demographics and economics using SANDAG's current regional growth forecast for projection purposes (SDCWA 2007). ~~As detailed in Section 3.11, utilities and public service systems would accommodate the proposed project as well as other anticipated development in the city and the region. Thus, the project would not significantly contribute to any utility or public service impact.~~

The proposed project is consistent with the general plan designation for the project site and thus would have been appropriately accounted for in regional service planning documents, such as the

UWMP. Because the project has been accounted for in regional potable water supply planning documents, the project would not contribute considerably to a cumulative impact to potable water supply. The park would mainly require recycled water for irrigation purposes and the San Elijo Water Reclamation Facility is currently underutilized and seeking additional recycled water users; therefore, the park would not contribute to a cumulative impact to recycled water service. Similarly, the San Elijo Water Pollution control facility has excess capacity and the addition of wastewater service to the proposed park would not considerably contribute to a cumulative impact.

As detailed in Section 3.11.3, the proposed project would result in an increase in calls for emergencies services, such as fire, medical, or police. As indicated by the service providers, the increase in calls would not affect service ratios or response times for the provision of services throughout their service areas. The other cumulative projects are typically smaller residential developments or expansions of existing facilities and would not be expected to generate high demand for fire, medical, or police services. No cumulative impact would result to schools with implementation of the proposed park as the project would not generate an increase in population that could impact school capacity. Also, no cumulative impact would result to park and recreation facilities as the proposed project would increase the amount of recreational facilities available to the community.

5.4.12 Agriculture

Agricultural resources are located throughout Encinitas and the entire region. However, the project is located within an urban environment, which is generally developed. Because the project is not located in an agricultural area, the cumulative study area includes the projects on the cumulative project list. The Hall property was previously used for agricultural activities. However, the land is not zoned as agriculture, nor is it designed as agricultural land in planning documents. The analysis contained in Section 3.12 found that the ~~past use of the site for agriculture does not necessarily mean the site is~~ not a significant agricultural resource and project impacts to agriculture would be less than significant. Because the project is in a developed urban setting, there are not large parcels of agricultural land in the vicinity that contribute to the ongoing viability of agriculture in the region. ~~The majority of~~As shown in Figure 5-1, the projects considered in the cumulative analysis are urban infill type projects as the area is a highly developed part of the city. Many are expansions of existing facilities or subdivisions of residential lots located within the developed, urban area of Encinitas and would not have an impact on agricultural areas. For this reason, the development of the park project in combination with other projects in the vicinity would not have a substantial impact on agricultural resources.

5.4.13 Population and Housing

Because population and housing are a citywide consideration, the geographic scope of the cumulative analysis considers the entire Encinitas area. As discussed in Section 3.13, the proposed Hall Property Community Park project would not result in population growth in Encinitas or the region and thus would not affect population. The project would displace two households; however, these households would be absorbed into the current 4 percent vacancy rate within the city. The project would not create the need for new or additional housing to be constructed. Because the project would have no impact to population and housing, the project's impacts are not cumulatively considerable and the project would not result in a cumulative impact.

5.5 GLOBAL CLIMATE CHANGE

Although a discussion of global climate change (also referred to herein as "climate change") impacts is not explicitly required by the CEQA Statutes or Guidelines, it is the view of the State Legislature (as expressed in its adoption of Assembly Bill [AB] 32, *The California Global Warming Solutions Act of 2006*) and the Governor (through the issue of Executive Order S-3-05) that global climate change poses the threat of significant adverse effects to the environment of California and the entire world, and that mitigation measures are needed to limit these impacts. Furthermore, the global scientific community has expressed very high confidence (i.e., at least 90 percent) that global climate change is anthropogenic, i.e., caused by humans, and that global warming will lead to adverse climate change effects around the globe (IPCC 2007).

5.5.1 Existing Conditions

Atmospheric greenhouse gases (GHGs) and clouds within the Earth's atmosphere influence the Earth's temperature by absorbing most of the infrared radiation rising from the Earth's sun-warmed surface that would otherwise escape into space. This process is commonly known as the Greenhouse Effect. GHGs and clouds, in turn, radiate some heat back to the Earth's surface and some out to space. The resulting balance between incoming solar radiation and outgoing radiation from both the Earth's surface and atmosphere keeps the planet habitable.

However, anthropogenic emissions of GHGs into the atmosphere enhance the Greenhouse Effect by absorbing the radiation from other atmospheric GHGs that would otherwise escape to space, thereby trapping more radiation in the atmosphere and causing temperature to increase. Carbon dioxide (CO₂) is the most important anthropogenic GHG. The global atmospheric concentration of CO₂ has increased from a preindustrial (roughly 1750) value of about 280 parts per million (ppm) to 379 ppm in 2005, primarily due to fossil fuel use with land use change providing a significant but smaller

contribution. The annual rate of growth in CO₂ concentrations continues to increase, with a larger annual CO₂ concentration growth rate during the last 10 years (1995-2005 average: 1.9 ppm), than since the beginning of continuous direct measurements in 1960.

Like CO₂, the global atmospheric concentration of methane (CH₄) in 2005 exceeds its preindustrial value. CH₄ growth rates have declined since the early 1990s with total emissions being nearly constant during this period. The observed increase in CH₄ concentration is very likely (at least 90 percent likelihood) due to anthropogenic activities, primarily agriculture and fossil fuel use. The atmospheric concentrations of CO₂ and CH₄ in 2005 greatly exceed the natural range over the last 650,000 years. The global concentration of nitrous oxide (N₂O) in 2005 also exceeds the preindustrial value. The growth rate in N₂O concentration has been approximately constant since 1980. More than a third of all N₂O emissions are anthropogenic and primarily due to agriculture.

Eleven of the last 12 years from 1995-2006 rank among the 12 warmest years in the instrumental record of global surface temperature (since 1850). An increase in global surface temperature of 0.74 °C (0.56 °C to 0.92 °C) occurred during the 100-year period from 1906-2005.

The human-produced GHGs responsible for increasing the Greenhouse Effect and their relative contribution to global warming (i.e., their relative ability to trap heat in the atmosphere) are CO₂ (53 percent); CH₄ (17 percent); near-surface ozone (O₃) (13 percent); N₂O (12 percent); and chlorofluorocarbons (CFCs) (5 percent). The most common GHG is CO₂, which constitutes approximately 84 percent of all GHG emissions in California (CEC 2006). Worldwide, the State of California ranks as the 12th to 16th largest emitter of CO₂ (the most prevalent GHG) and is responsible for approximately 2 percent of the world's CO₂ emissions (CEC 2006).

The increasing emissions of GHGs—primarily associated with the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.) and deforestation, as well as agricultural activity and the decomposition of solid waste—have led to a trend of anthropogenic warming of the Earth's average temperature, which is causing changes in the Earth's climate. This increasing temperature phenomenon is known as global warming and the climatic effect is known as climate change or global climate change. Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants (CAPs) and toxic air contaminants (TACs), which are pollutants of regional and local concern. While pollutants with localized air quality effects have relatively short atmospheric lifetimes (generally on the order of a few days), GHGs have relatively long atmospheric lifetimes ranging from 1 year to several thousand years. The long atmospheric lifetimes allow for GHGs to disperse around the globe. In addition, the impacts of GHGs are borne globally, as opposed to the localized air quality effects of CAPs and TACs.

The State Legislature adopted the public policy position that global warming is, “a serious threat to the economic well-being, public health, natural resources, and the environment of California” (Health and Safety Code § 38501). Further, the State Legislature has determined that, “the potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra Nevada snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems,” and that, “(g)lobal warming will have detrimental effects on some of California’s largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry (and)...will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the State” (Health and Safety Code § 38501). These public policy statements became law with the enactment of AB 32, Statutes of 2006.

5.5.2 Regulatory Framework

International Policies and Regulations

The United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate changes. The UNFCCC recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of CO₂ and other GHGs. The UNFCCC enjoys near universal membership, with 1992 countries having ratified.

Under the UNFCCC, governments:

- Gather and share information on GHG emissions, national policies, and best practices.
- Launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries.
- Cooperate in preparing for adaptation to the impacts of climate change.

The UNFCCC entered into force on March 21, 1994.

Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the UNFCCC but standing on its own. The Protocol requires developed countries to reduce their GHG emissions below levels specified for each of them in the Protocol. Under the Protocol, the United States, which never ratified it, would have been required to reduce its GHG emissions to 93 percent of 1990 levels within the 5-year time frame between 2008-2012.

Federal Plans, Policies, Regulations, and Laws

House Resolution 6 - The 2007 Energy Bill

House Resolution (HR) 6, the 2007 Energy Bill, mandates improved national standards for fuel economy (Corporate Average Fuel Economy [CAFE] standards). These standards require a fleetwide average of 35 miles per gallon (mpg) to be achieved by 2020. The National Highway Traffic Safety Administration is directed to phase-in requirements to achieve this goal. Analysis by the California Air Resources Board (CARB) suggests that this will require an annual improvement of approximately 3.4 percent between now and 2020.¹⁰

State Plans, Policies, Regulations, and Laws

Assembly Bill 32, the California Global Warming Solutions Act of 2006 (Health and Safety Code § 38500 et seq.)

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006, into law. In general, AB 32 directs CARB to do the following:

- On or before June 30, 2007, CARB shall publicly make available a list of discrete early action GHG emission reduction measures that can be implemented prior to the adoption of the statewide GHG limit and the measures required to achieve compliance with the statewide limit.
- By January 1, 2008, determine the statewide levels of GHG emissions in 1990, and adopt a statewide GHG emissions limit that is equivalent to the 1990 level.
- On or before January 1, 2010, adopt regulations to implement the early action GHG emission reduction measures.

¹⁰ www.arb.ca.gov/cc/ccms/ab1493_v_cafe_study.pdf.

- On or before January 1, 2011, adopt quantifiable, verifiable and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020, to become operative on January 1, 2012, at the latest. The emission reduction measures may include direct emission reduction measures, alternative compliance mechanisms, and potential monetary and nonmonetary incentives that reduce GHG emissions from any sources of categories of sources as CARB finds necessary to achieve the statewide GHG emissions limit.
- CARB shall monitor compliance with and enforce any emission reduction measure adopted pursuant to AB 32.

AB 32 also takes into account the relative contribution of each source or source category to protect adverse impacts on small businesses and others by requiring CARB to recommend a de minimis threshold of GHG emissions below which emissions reduction requirements would not apply. AB 32 also allows the governor to adjust the deadlines mentioned above for individual regulations or the entire state to the earliest feasible date in the event of extraordinary circumstances, catastrophic events, or threat of significant economic harm.

CARB "Early Action Measures" (June 2007)

On June 21, 2007, CARB approved a list of discrete early action measures to address climate change as required by AB 32. The three measures include (1) a low-carbon fuel standard, which will reduce the carbon intensity in California's transportation fuels by at least 10 percent by 2020, thereby reducing total CO₂ emissions; (2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance through the restriction of "do-it-yourself" automotive refrigerants; and (3) increased CH₄ capture from landfills through the required implementation of state-of-the-art capture technologies.

CARB Resolution 07-55 (December 2007)

The adoption of CARB Resolution 07-55 on December 6, 2007, established 427 million metric tons of carbon dioxide equivalent (MMTCO₂e) as the statewide GHG emissions limit to be achieved by 2020 as required by AB 32.

Executive Order S-3-05

Executive Order S-3-05, signed by Governor Arnold Schwarzenegger on June 1, 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and

potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, Executive Order #S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

The executive order also directed the Secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multiagency effort to reduce GHG emissions to the target levels. The Secretary will submit biennial reports to the governor and state legislature describing progress made toward reaching the emission targets established by the executive order and on the impacts of climate change on California, including impacts to water supply, public health, agriculture, the coastline, and forestry, and shall prepare and report on mitigation and adaptation plans to combat these impacts. The first of these reports on the impacts to California, "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report), was published in February 2006 (California Climate Change Center 2006).

The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0 to 5.5 °F); medium warming range (5.5 to 8.0 °F); and higher warming range (8.0 to 10.5 °F). The Climate Scenarios report then presents analysis of future climate in California under each warming range.

Each emissions scenario would result in substantial temperature increases for California. According to the report, substantial temperature increases would result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report (California Climate Change Center 2006), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to O₃ formation are projected to increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background O₃ levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90 °F in Los Angeles and 95 °F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming scenario, snowpack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snowpack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

The state's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta—a major state fresh water supply.

Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25 percent of the water supply they need; decrease the potential for hydropower production within the state (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher CO₂ levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development will change, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate O₃ pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to intensify this threat by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30 percent toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90 percent.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems are expected to decline by as much as 60 to 80

percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the state's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

Senate Bill 1368 (Public Utilities Code §§ 8340-41)

Senate Bill (SB) 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. Similarly, the California Energy Commission (CEC) was tasked with establishing a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and the CEC. In January 2007, the PUC adopted an interim Greenhouse Gas Emissions Performance Standard, which requires that all new long-term commitments for baseload generation entered into by investor-owned utilities have emissions no greater than a combined cycle gas turbine plant (i.e., 1,100 pounds of CO₂ per megawatt-hour). A "new long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of 5 years or more, or major investments by the utility in its existing baseload power plants. In May 2007, the CEC approved regulations that prohibit the state's publicly owned utilities from entering into long-term financial commitments with plants that exceed the standard adopted by the PUC of 1,100 pounds of CO₂ per megawatt hour.

California's Renewable Energy Portfolio Standard Program (2005) and Senate Bill 107 (2006)

In 2002, California established its Renewable Energy Portfolio Standard Program, which originally included a goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. SB 107 requires investor-owned utilities such as Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric (SDG&E) to meet the 20 percent renewable energy goal by 2010. The state's most recent Energy Action Plan (2005) raised the renewable energy goal to 33 percent by 2020.

Senate Bill 1505

SB 1505 of 2006 establishes environmental performance standards for the production and use of hydrogen fuel for transportation purposes in the state. In general, SB 1505 specifically requires that hydrogen-fueled vehicles reduce GHG emissions by at least 30 percent compared to emissions from new gasoline vehicles; at least one-third of the hydrogen produced or dispensed for transportation purposes in the state must be made from renewable sources of electricity; well-to-tank emissions of smog-forming pollutants from hydrogen fuel dispensed in the state must be reduced by at least 50 percent when compared to gasoline; and emissions of toxic contaminants must be reduced to the maximum extent feasible compared to gasoline on a site-specific basis.

Executive Order S-20-04 – The California Green Building Initiative

Governor Schwarzenegger signed Executive Order S-20-04 (“The California Green Building Initiative”) establishing California’s priority for energy and resource-efficient high performance buildings on December 14, 2004. The Executive Order sets a goal of reducing energy use in state-owned and private commercial buildings by 20 percent in 2015 using nonresidential Title 20 and 24 standards adopted in 2003 as the baseline. The California Green Building Initiative also encourages private commercial buildings to be retrofitted, constructed, and operated in compliance with the state’s Green Building Action Plan.

California Climate Action Registry (Senate Bills 1771 and 527)

The California Climate Action Registry (CCAR) was established in 2001 by SB 1771 and SB 527 as a nonprofit voluntary registry for GHG emissions. The purpose of CCAR is to help companies and organizations with operations in the state establish GHG emissions baselines against which any future GHG emissions reduction requirements may be applied. CCAR has developed a general reporting protocol and additional industry-specific protocols that provide guidance on how to inventory GHG emissions for participation in the registry.

Senate Bill 97

SB 97, signed August 2007, directs the Governor’s Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, for evaluation under CEQA by July 1, 2009. The Resources Agency is required to certify or adopt those guidelines by January 1, 2010. This bill also protects projects (retroactive and future) funded by the Highway Safety, Traffic Reduction, Air Quality

and Port Security Bond Act of 2006 (Proposition 1B or 1E) from claims of inadequate analysis of GHGs as a legitimate cause of action. This latter provision will be repealed on January 1, 2010.

Assembly Bill 1493

In 2002, Governor Gray Davis signed AB 1493. AB 1493 required CARB to develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state.”

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California’s existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. Emission requirements adopted as part of CCR 13 1961.1 are shown in Table 5-3. For passenger cars and light-duty trucks 3,750 pounds (lbs) or less loaded vehicle weight (LVW), the 2016 GHG emission limits are approximately 37 percent lower than during the first year of the regulations in 2009. For medium-duty passenger vehicles and light-duty trucks 3,751 LVW to 8,500 lbs gross vehicle weight (GVW), GHG emissions are reduced approximately 24 percent between 2009 and 2016.

Table 5-3. Fleet Average GHG Exhaust Emission Requirements Included in CCR 13 1961.1

Vehicle Model Year	Fleet Average GHG Emissions (grams per mile CO ₂ equivalents)	
	All Passenger Cars; Light-Duty Trucks 0-3,750 lbs loaded vehicle weight (LVW) ¹	Light-Duty Trucks 3,751 lbs LVW to 8,500 lbs gross vehicle weight (GVW); Medium-Duty Passenger Vehicles ¹
2009	323	439
2010	301	420
2011	267	390
2012	233	361
2013	227	355
2014	222	350
2015	213	341
2016	205	332

¹ Specific Characteristics of Passenger Cars, Light-Duty Trucks, and Medium-Duty Passenger Vehicles are provided in CCR 13 1900 as amended to comply with AB 1493.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al., v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, *Massachusetts vs. EPA*, the primary issue in question is whether the federal Clean Air Act provides authority for EPA to regulate CO₂ emissions. In April 2007, the U.S. Supreme Court ruled in *Massachusetts'* favor, holding that GHGs are air pollutants under the Clean Air Act. On December 11, 2007, the judge in the *Central Valley Chrysler-Jeep* case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the EPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging EPA's denial on January 2, 2008. California's waiver request has not been granted as of this writing.

California Solar Initiative

As part of the California Solar Initiative, the state has set a goal to create 3,000 megawatts of new solar-produced electricity by 2017 through the provision of approximately \$3.3 billion in incentives to existing residential customers and all nonresidential customers by the PUC and to new residential customers by the CEC.

Local Plans and Programs

The City does not have any adopted plans or programs specifically designed to address the emission of GHGs that contribute to global climate change.

The City recently formed the Encinitas Environmental Committee to advise the City Council regarding policies and actions related to environmental issues. This new committee is still in the process of formalizing a mission statement. The Encinitas Environmental Committee shall provide leadership for long-term thinking to address various environmental issues and promote a collaborative process and shared environmental vision between the City, businesses, and citizens.

The City Council has approved a "Cool Roof" project to be constructed at City Hall. The project consists of installation of a 95 KW photovoltaic solar array, installation of skylights and solar tubes, an upgraded building energy management system; view enhancements from the adjacent library,

educational kiosks and replacement of the existing heating, ventilation and air conditioning system with a central plant and thermal energy storage system.

5.5.3 Cumulative Impact Evaluation

The following threshold is used to evaluate the project's GHG emissions for cumulative significance:

The proposed project would have a cumulatively significant impact to climate change if it would:

Directly and/or indirectly generate a mass of greenhouse gas emissions that would interfere with the ability of the State of California to achieve the 1990 statewide level of emissions by 2020, an approximately 28.8 percent reduction from a business as usual (BAU) emissions scenario,¹¹ as required by The California Global Warming Solutions Act of 2006 (AB 32).

Cumulative Effects of Climate Change on the Project

The following briefly evaluates the potential effects of climate change on the proposed project:

Sea Level Rise

The proposed project site is located approximately 0.75 mile to the east of the Pacific Ocean at elevations ranging from 180 feet above mean sea level (MSL) to 220 feet MSL. As a result, the proposed project is not considered vulnerable to sea level rise expected to occur as a result of climate change.

Wildfire Hazard

The proposed project is located within an existing urban area that is not within or in proximity to an area likely to experience a wildfire. As a result, it is not anticipated that the proposed project would be directly impacted by the increased risk of wildfires associated with climate change.

¹¹ A preliminary estimate from the California Air Resources Board indicates that net GHG emissions in 2020 would be 600 million metric tons carbon dioxide equivalent (MMT_{CO₂e}) under a BAU Scenario. $(600 \text{ MMT}_{\text{CO}_2\text{e}} - 427 \text{ MMT}_{\text{CO}_2\text{e}}) = 173 \text{ MMT}_{\text{CO}_2\text{e}}$. $(173 \text{ MMT}_{\text{CO}_2\text{e}}/600 \text{ MMT}_{\text{CO}_2\text{e}}) = 28.8\%$. http://www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf.

Public Health

As discussed previously, the higher temperatures associated with climate change are expected to increase the frequency, duration, and intensity of conditions conducive to O₃ formation. The increased risk of wildfires could increase the level of particulate matter in the project's air basin. In addition, rising temperatures would increase the risk of illness and death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

The health of users of the proposed park, particularly active users such as sports teams, would potentially be affected by poor air quality conditions and extreme heat. However, projections about these potential impacts were made for the state as a whole. It is not known at this time whether and to what degree climate change will affect the air quality and propensity for extreme heat at the project site. As a result, analyzing the project-level effects of climate change to the health of users of the proposed park is considered speculative under CEQA Guidelines Section 15145.

Water Supply Reliability

As discussed previously, climate change is expected to reduce the Sierra Nevada snowpack and therefore potentially reduce the amount of runoff, which is used as drinking water during the dry spring and winter months. Reduction in the snowpack, as well as potential changes in precipitation patterns, could affect the amount of water conveyed to southern California, including the project site.

[Providing reliable water supply during increasingly dry years and the overall reduction in water availability as a result of climate change poses a long-term challenge for southern California. SDCWA, which is the main supplier of water to SDWD acknowledges in their 2008 Strategic Plan that climate change and warmer, drier years are making traditional sources of water less reliable \(SDCWA 2008a\). In order to begin to address the potential water supply implication of climate change, the SDCWA Strategic Plan presents a water diversification strategy including conservation, desalination, nonpotable water reuse, and water transfers. SDCWA has also joined in the formation of the Water Utility Climate Alliance which is a coalition of water agencies working to research the impacts of climate change on water utilities, develop strategies for adapting to the change, and reducing their greenhouse gas emissions \(SDCWA 2008b\).](#)

Cumulative Effects of the Project on Climate Change

Global climate change is caused by the addition of massive quantities of GHGs to the atmosphere due primarily to human activities in the last 150 years from all over the world. For example, about 26 billion metric tons of CO₂ were added to the Earth's atmosphere in 2005 alone. If viewed apart from

the GHG emissions produced by activities elsewhere in the world, the mass of GHG emissions generated by an individual development project such as the proposed project would be so minute that the concentration of GHGs in the atmosphere would essentially remain the same. The increasing concentration of GHGs in the atmosphere is caused by the aggregate GHG emissions from a variety of human activities throughout the world, including development projects. Therefore, it is appropriate to evaluate a project's contribution to global climate change in this cumulative, worldwide context.

The proposed project would generate GHG emissions including carbon dioxide, methane, and nitrous oxide (CO₂, CH₄, and N₂O, respectively) primarily associated with project-generated vehicle trips; electricity and natural gas consumption of the proposed buildings; energy embodied in potable and recycled water anticipated to be used by the project (i.e., the electricity required to extract, convey, treat, and distribute treated water to the project site); outdoor lighting; and the operation of construction equipment and vehicles. For each source, emissions are estimated for 2020 under the following four scenarios:

- **Scenario 1: Business as Usual (BAU).** This scenario assumes the following:
 - Current carbon intensities for purchased electricity, natural gas, and motor fuel (i.e., gasoline and diesel). Fleetwide vehicle mix and fuel economy assumptions and building natural gas consumption factors are taken from URBEMIS Version 9.2.4 (URBEMIS).
 - Current California averages for commercial building electricity consumption factors were used to estimate building electricity demand since averages for the proposed building types are not available. It is assumed that the estimates of building electricity and natural gas consumption represent building energy performance under construction in accordance with Title 24, Part 6, of the California Code of Regulations: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (2005).
 - The project's electricity demand would be met by electricity purchased from the grid. Estimates for electricity and natural gas demand (at the proposed aquatic center) are based on analysis performed for similar swimming pools in the City of Carlsbad.
 - The level of project water consumption is consistent with the water demand projections of Section 3.11, Public Services and Utilities. The proposed buildings, swimming pools, restrooms, and infield turf irrigation are assumed to require potable water. Landscaping and outfield turf would be irrigated with recycled water.
 - Outdoor lighting is consistent with the type of lighting used by the City at other parks and recreation facilities.

- **Scenario 2: Implementation of Federal and State Mandates.** This scenario assumes full implementation of the following federal and state mandates for 2020 that would result in GHG emissions reductions associated with vehicle trips and electricity consumption: (1) federal CAFE standards requiring average miles per gallon fleetwide of 35 miles per gallon to be achieved by 2020 and (2) the state's ~~2005 Energy Action Plan goal~~ [requirement for investor-owned utilities such as SDG&E](#) to generate ~~33-20~~ percent of electricity from renewable sources by ~~2020~~ [2010](#). There are currently no adopted local or regional mandates that would reduce the project's GHG emissions in 2020 associated with vehicle trips, electricity and natural gas consumption, or the embodied energy of water consumed by the project.
- **Scenario 3: Implementation of Mitigation Measures.** This scenario evaluates the potential for mitigation measures associated with building and facility demand for natural gas and grid electricity, water, and outdoor lighting demand for electricity that go beyond current requirements (i.e., BAU) to reduce GHG emissions.
- **Scenario 4: Implementation of Federal and State Mandates and Implementation of Mitigation Measures.** This scenario reflects the aggregate emissions associated with implementation of federal and state mandates (Scenario 2) and implementation of mitigation measures (Scenario 3).

Vehicle Trips

Methodology

CO₂ emissions associated with project-generated vehicle trips were calculated in tons per year in 2020 using URBEMIS. The results were converted to metric tons per year using the standard conversion rate of 1 ton equals 0.90718474 metric tons. The calculations assume that the project would generate 2,615 average daily trips (ADTs), consistent with Section 5.2, Transportation/Circulation. The project-generated ADTs would result in approximately 15,155 annual vehicle miles traveled (VMT) in 2020 according to URBEMIS. URBEMIS does not calculate CH₄ or N₂O emissions, two other GHGs associated with the combustion of gasoline and diesel fuel. However, CO₂ emissions are considered a good estimate of total GHG emissions from vehicle trips since CH₄ and N₂O represent a negligible portion of the GHGs associated with the burning of gasoline and diesel fuel compared to CO₂.

Results

As shown in Table 5-4, project vehicle trips would annually generate approximately 2,606 metric tons of CO₂ (MTCO₂) in 2020 under the BAU Scenario. CO₂ emissions associated with project vehicle

trips were also calculated under implementation of the new federal CAFE standards requiring average miles per gallon fleetwide of 35 miles per gallon to be achieved by 2020 (Scenario 2). The new federal CAFE standards are projected to reduce GHG emissions of the California fleet mix (passenger cars and light duty vehicles) by approximately 30 percent in 2020 according to a technical assessment of the standards prepared by CARB.¹² Project vehicle trips would annually generate approximately 1,817 MTCO₂ in 2020 with implementation of the new CAFE standards, approximately 30 percent less than under the BAU Scenario.

Table 5-4. Projected Annual GHG Emissions from Project Vehicle Trips in 2020

Emissions Scenario	Project Vehicle Trips		Annual GHG Emissions in 2020		Percent Change from BAU
	ADTs	Annual VMT	(Tons CO ₂)	(MTCO ₂)	
Scenario 1: BAU	2,615	15,155	2,873	2,606	n/a
Scenario 2: Implementation of CAFE Standards	2,615	15,155	2,002	1,817	-30.3%
Scenario 3: Implementation of Mitigation Measures	2,615	15,155	2,873	2,606	0.0%
Scenario 4: CAFE Standards + Mitigation Measures	2,615	15,155	2,002	1,817	-30.3%

Source: URBEMIS Version 9.2.4, 2008; EDAW, 2008.
Notes: URBEMIS Version 9.2.4 output is in tons CO₂ per year. Results converted to metric tons CO₂ using conversion rate of 1 ton = .90718474 metric tons.

Scenario 3 indicates that the proposed project does not include any measures or features that would reduce the level of ADTs or VMT associated with the project in a quantifiable manner compared to the BAU Scenario. However, the quantitative estimate of project trip-related GHG emissions is considered a conservative analysis because the park is intended to serve the surrounding community, the residents of which currently travel outside the community to access existing parks and recreation facilities such as swimming pools and athletic fields. Residents will be able to drive shorter distances and/or walk or bike to access park and recreation facilities than under the existing condition. Thus, the project would reduce the mass of GHG emissions associated with the vehicle trips community members make to access parks and recreation facilities below current levels. Nonetheless, since this reduction cannot be accurately quantified without detailed study that is beyond the scope of this EIR, the quantitative analysis assumes that the project as designed would result in a level of CO₂ emissions from vehicle trips consistent with the BAU Scenario. Scenario 4 indicates that the approximately 30

¹² Comparison of Greenhouse Gas Reductions for the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations (CARB, February 25, 2008); Table 5: Federal Fuel Economy Standards and Estimated CO₂ Emissions in California.

percent reduction in CO₂ emissions from vehicles would be entirely attributable to implementation of federal CAFE standards.

Building and Swimming Pool Electricity Demand

Methodology

GHG emissions associated with projected building electricity demand were calculated for year 2020 using current average electricity consumption factors for commercial buildings in the SDG&E service area. Electricity consumption factors for the proposed building types are not currently available. Electricity consumption for the proposed teen center is assumed consistent with a small office (less than 30,000 square feet) and the proposed restrooms are assumed consistent with an unrefrigerated warehouse (the building type with the lowest electricity intensity per square foot). The Electricity Intensity Factors per square foot of commercial use were taken from California Commercial End-Use Survey (CEC 2006).¹³ Electricity consumption of the proposed aquatic center is assumed consistent with the existing Carlsbad Swim Complex. GHG emissions are calculated in metric tons carbon dioxide equivalent¹⁴ (MTCO₂e) using CCAR General Reporting Protocol (GRP) Version 2.2 emission factors for CO₂, CH₄, and N₂O in statewide electricity mix. Emissions factors for these gases from the SDG&E electricity mix are not provided by the CCAR GRP. The Global Warming Potentials (GWPs) for CH₄ and N₂O were taken from the IPCC Second Assessment Report (SAR), consistent with the CCAR GRP.

Results

As shown in Table 5-5, projected electricity demand for the proposed buildings and swimming pools would annually generate approximately 99 MTCO₂e in 2020 under the BAU Scenario. GHG emissions associated with projected building electricity demand were also calculated under the assumption of full implementation of the state's ~~2005 Energy Action Plan goal requirement for investor-owned utilities~~ to generate ~~33-20~~ percent of electricity from renewable sources by ~~2020-2010~~ (Scenario 2). According to the CEC, the average for the statewide electricity mix is 10.9 percent of

¹³ *California Commercial End-Use Survey*. California Energy Commission. CEC-400-2006-005. March 2006.

¹⁴ CO₂e = Carbon Dioxide Equivalent: CO₂e is a calculation that enables all GHG emissions to be considered as a group in order to measure the impact of all GHG emissions. This is necessary because GHGs vary widely in their ability to absorb radiation and trap heat in the atmosphere, which means their power to affect the climate—or their global warming potential—also varies widely. The global warming potential of GHGs is measured relative to the global warming potential of CO₂. For example, since CH₄ and N₂O are approximately 21 and 310 times more powerful than CO₂, respectively, in their ability to trap heat in the atmosphere, they have global warming potentials of 21 and 310 (CO₂ has a global warming potential of 1). The global warming potential of each GHG is then multiplied by the prevalence of that gas to produce CO₂ equivalent.

Table 5-5. Projected Annual GHG Emissions from Electricity Demand in 2020

Land Use	Total Area	Annual Electricity Intensity		Annual Electricity Use		Emissions (lbs)			Total Emissions (MTCO ₂ e)	Percent Change from BAU
		(kWh/sf)	/sf	(kWh)	(mWh)	CO ₂	CH ₄	N ₂ O		
Aquatic Center	5,000 Sf	n/a		206,640	207	166,250	1	1	76	
Teen Center	5,000 Sf	12.13	/sf	60,650	61	48,795	0	0	22	n/a
Restrooms	800 Sf	4.54	/sf	3,632	4	2,922	0	0	1	
Scenario 1: BAU				270,922	271	217,968	2	1	99	n/a
Scenario 2: Implementation of Renewable Portfolio Standard	no change	n/a		270,922	271	169,797 <u>198,133</u>	1	1	77 <u>90</u>	-22.1% <u>-9.1%</u>
Scenario 3: Implementation of Mitigation Measures				223,511	224	179,823	1	1	82	-17.5%
Scenario 4: Renewable Portfolio Standard + Mitigation Measures				223,511	224	140,082 <u>163,459</u>	1	1	64 <u>74</u>	-35.7% <u>-25.0%</u>

Source: EDAW, 2008.

Notes: Assumes the following CCAR GRP emission factors for CO₂, CH₄, and N₂O: CO₂ = 804.54 lbs/mWh; CH₄ = 0.0067 lbs/mWh; N₂O = 0.0037 lbs/mWh.

Assumes the following GWPs from the IPCC's Second Assessment Report: CO₂ = 1; CH₄ = 21; N₂O = 310.

electricity from renewable sources as of 2006, the latest year for which data are available.¹⁵ As a result, the calculation assumes an additional ~~22.1~~9.1 percent of grid electricity purchased by the proposed project would be generated from renewable sources (i.e., sources that would have no net GHG emissions). With full implementation of the ~~33~~20 percent ~~goal~~requirement by ~~2020~~2010, projected building electricity demand would annually generate approximately ~~77~~90 MTCO₂e in 2020, approximately ~~22~~9 percent less than under the BAU Scenario.

Scenario 3 assumes that the proposed buildings would achieve energy performance equivalent to a 17.5 percent improvement over Title 24 standards (equivalent to 3 points under LEED™ for New Construction Version 2.2 Energy and Atmosphere Credit 1¹⁶) and reduce electricity demand for the proposed swimming pools by 17.5 percent compared to the Carlsbad Swim Complex. The implementation of this mitigation measure would result in approximately 82 MTCO₂e in 2020 from building and swimming pool electricity consumption, approximately 17.5 percent below the BAU Scenario. Scenario 4 indicates that full implementation of the state's ~~33~~20 percent ~~goal~~renewable energy requirement by ~~2020~~2010 and energy performance equivalent to a 17.5 percent improvement would reduce CO₂e emissions from building and swimming pool electricity consumption to approximately ~~64~~74 MTCO₂e in 2020, about ~~36~~25 percent less than BAU in 2020.

Building and Swimming Pool Natural Gas Demand

Methodology

Natural gas demand associated with the proposed teen center was calculated in tons CO₂ per year using URBEMIS. The results were converted to metric tons per year using the standard conversion rate of 1 ton equals 0.90718474 metric tons. Natural gas demand associated with the proposed aquatic center is assumed consistent with the existing Carlsbad Swim Complex. Nearly all (about 98 percent) of the project's natural gas demand would be associated with operation of the proposed aquatic center. The remaining natural gas demand (about 1.5 percent) would be associated with the proposed teen center.

Results

As shown in Table 5-6, the proposed project would generate approximately 174 MTCO₂ in 2020 under the BAU scenario. There are no federal, state, regional or local standards that would reduce

¹⁵ www.energy.ca.gov/electricity/electricity_resource_mix_pie_charts/index.html. Although the percentage of renewable energy within the SDG&E portfolio is known, the emission factors for CO₂, CH₄, and N₂O for the SDG&E portfolio are not known. As a result, this analysis assumes the statewide averages for percentage renewable energy within the electricity mix and for CO₂, CH₄, and N₂O emission factors.

¹⁶ <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=220#v2.2>.

Table 5-6. Projected Annual GHG Emissions from Natural Gas Demand in 2020

Land Use	Total Area	Annual Natural Gas Intensity		Emissions (kg)			Total Emissions (MTCO ₂ e)	Percent Change from BAU
		(Therms)	(MMBtu)	CO ₂	CH ₄	N ₂ O		
Teen Center	5,000 Sf	Calculated using URBEMIS		3,778	0	0	4	n/a
Aquatic Center	5,000 Sf	31,870	3,187	169,070	19	0	170	n/a
Scenario 1: BAU		31,870	3,187	172,848	19	0	174	n/a
Scenario 2: Implementation of State/Federal Mandates	no change	31,870	3,187	172,848	19	0	174	0.0%
Scenario 3: Implementation of Mitigation Measures		31,870	3,187	129,920	14	0	130	-24.8%
Scenario 4: Mandates + Mitigation Measures		31,870	3,187	129,920	14	0	130	-24.8%

Source: EDAW, 2008.

Notes: Assumes the following CCAR GRP emission factors for CO₂, CH₄, and N₂O: CO₂ = 53.05 kg/MMBtu; CH₄ = 0.0059 kg/MMBtu; N₂O = 0.0001 kg/MMBtu.

Assumes the following GWPs from the IPCC's Second Assessment Report: CO₂ = 1; CH₄ = 21; N₂O = 310.

the carbon content of natural gas used by the proposed project or the natural gas intensity (i.e., natural gas use per square foot) of the proposed buildings or swimming pools. Thus, Scenario 2 would be consistent with BAU.

Scenario 3 assumes that the proposed buildings would achieve energy performance equivalent to at least a 17.5 percent improvement over Title 24 standards (equivalent to 3 points under LEED™ for New Construction Version 2.2 Energy and Atmosphere Credit 1¹⁷) and that at least 25 percent of the swimming pools' heating demand would be met by onsite solar heating. The implementation of these mitigation measures would result in approximately 130 MTCO₂e in 2020 from natural gas consumption, approximately 25 percent below the BAU Scenario. Since there are no state or federal standards that would reduce natural gas-related emissions, Scenario 4 would be equal to Scenario 3.

Potable Water Demand

Methodology

Water provided to the project is embedded with energy by virtue of the amount of energy consumed in collecting, extracting, conveying, treating, distributing water to end users, and treating and disposing of wastewater. The analysis of embodied energy of water consumed by the proposed project assumed that potable water consumed for indoor uses has an embodied energy of 13,222 kilowatt-hours (kWh) per million gallons (MG) while potable water consumed for infield turf irrigation has an embodied energy of 11,111 kWh/MG (the latter figure is lower because water used outdoors is not embedded with energy used during the wastewater treatment process).¹⁸ Water demand for the proposed project was assumed consistent with Table 3.11.3, Estimated Park Potable Water Use, of Section 3.11, Public Services and Utilities.

Results

As shown in Table 5-7, electricity consumption embedded in projected potable water demand would annually generate approximately 10 MTCO₂e in 2020 under the BAU Scenario. GHG emissions associated with electricity consumption embedded in projected water demand were also calculated under full implementation of the state's ~~2005 Energy Action Plan goal~~ [requirement for investor-owned utilities](#) to generate ~~33-20~~ percent of electricity from renewable sources by ~~2020-2010~~ (Scenario 2). According to the California Energy Commission, the average for the statewide electricity mix is 10.9 percent of electricity from renewable sources as of 2006, the latest year for which data is

¹⁷ <http://www.usgbc.org/ShowFile.aspx?DocumentID=1095>.

¹⁸ *Refining Estimates of Water-Related Energy Use in California*. California Energy Commission, Public Interest Energy Research Program. CEC-500-2006-118. December 2006.

Table 5-7. Projected Annual GHG Emissions from Potable Water Demand in 2020

Land Use	Average Daily Use	Annual Use	Embodied Energy of CA Water (kWh/MG)	Annual Electricity Required for Demand		Emissions (lbs)			Total Emissions (MTCO ₂ e)	Percent Change vs. BAU	
	(gallons)	(gallons)		(million gallons)	(kWh)	(mWh)	CO ₂	CH ₄			N ₂ O
Restrooms	2,572	938,780	0.939	13,200	12,392	12.392	9,970	0	0	5	
Infield Turf Irrigation	717	261,705	0.262	11,111	2,908	2.908	2,339	0	0	1	
Aquatic Center	2,319	846,435	0.846	13,200	11,173	11.173	8,989	0	0	3	n/a
Other	20	7,300	0.007	13,200	96	0.096	78	0	0	0	
Scenario 1: BAU	5,628	2,054,220	2.054	n/a	26,569	26.569	21,376	0	0	10	
Scenario 2: Implementation of Renewable Portfolio Standard	5,628	2,054,220	2.054	n/a	26,569	26.569	16,652 <u>19,431</u>	0	0	8 <u>9</u>	-22.1% <u>-9.1%</u>
Scenario 3: Implementation of Mitigation Measures	13,595	4,962,175	4.962	n/a	26,569	26.569	21,376	0	0	10	0.0%
Scenario 4: Renewable Portfolio Standard + Mitigation Measures	5,628	2,054,220	2.054	n/a	26,569	26.569	21,376 <u>19,431</u>	0	0	8 <u>9</u>	-22.1% <u>-9.1%</u>

Source: EDAW, 2008.
Notes: Assumes the following CCAR GRP emission factors for CO₂, CH₄, and N₂O: CO₂ = 804.54 lbs/mWh; CH₄ = 0.0067 lbs/mWh; N₂O = 0.0037 lbs/mWh.
Assumes the following GWPs from the IPCC's Second Assessment Report: CO₂ = 1; CH₄ = 21; N₂O = 310.

available. As a result, the calculation assumes an additional ~~22.1~~9.1 percent of grid electricity embodied in potable water would be generated from renewable sources (i.e., sources that would have no net GHG emissions). With full implementation of the ~~33~~20 percent goal by ~~2020~~2010, electricity consumption embedded in projected water demand would annually generate approximately ~~8.9~~MTCO₂e in 2020, approximately ~~22.1~~9.1 percent less than under the BAU Scenario.

Scenario 3 indicates that the proposed project does not include any measures or features that would reduce the level of demand for potable water compared to the BAU Scenario. Therefore, the project as designed would result in a level of CO₂e emissions from electricity consumption embedded in potable water demand consistent with the BAU Scenario. Scenario 4 indicates that the approximately ~~22.1~~9 percent reduction in CO₂e emissions from electricity consumption embedded in potable water demand would be entirely attributable to full implementation of the state's ~~33~~20 percent renewable electricity goal by ~~2020~~2010.

Recycled Water Demand

Methodology

Water provided to the project is embedded with energy by virtue of the amount of energy consumed in collecting, extracting, conveying, treating, distributing water to end users, and treating and disposing of wastewater. The analysis of embodied energy of water consumed by the proposed project assumed that recycled water in San Diego County has an embodied energy of 400 kilowatt-hours (kWh) per acre foot.¹⁹ Water demand for the proposed project was assumed consistent with Table 3.11.4, Estimated Park Recycled Water Use, of Section 3.11, Public Services and Utilities.

Results

As shown in Table 5-8, electricity consumption embedded in projected recycled water demand would annually generate approximately 14 MTCO₂e in 2020 under the BAU Scenario. GHG emissions associated with electricity consumption embedded in projected recycled water demand were also calculated under full implementation of the state's ~~2005 Energy Action Plan goal requirement for investor-owned utilities~~ to generate ~~33~~20 percent of electricity from renewable sources by ~~2020~~2010 (Scenario 2). According to the CEC, the average for the statewide electricity mix is 10.9 percent of electricity from renewable sources as of 2006, the latest year for which data are available. As a result, the calculation assumes an additional ~~22.1~~9.1 percent of grid electricity embodied in recycled water would be generated from renewable sources (i.e., sources that would have no net GHG

¹⁹ *Energy Down the Drain: The Hidden Costs of California's Water Supply*. Natural Resources Defense Council; Pacific Institute. August 2004.

Table 5-8. Projected Annual GHG Emissions from Recycled Water Demand in 2020

Land Use	Average Daily Use	Annual Use	Embodied Energy (kWh/af)	Annual Electricity Required for Demand		Emissions (lbs)			Total Emissions (MTCO ₂ e)	Percent Change vs. BAU	
	(gallons)	(gallons)		(acre feet)	(kWh)	(mWh)	CO ₂	CH ₄			N ₂ O
Landscaping	25,098	9,160,770	28	400	11,245	11	9,047	0	0	4	n/a
Outfield Turf Irrigation	59,385	21,675,525	67	400	26,608	27	21,407	0	0	8	n/a
Scenario 1: BAU	84,483	30,836,295	95	400	37,853	38	30,454	0	0	14	n/a
Scenario 2: Implementation of Renewable Portfolio Standard	84,483	30,836,295	95	400	37,853	38	23,724 <u>27,683</u>	0	0	11 <u>13</u>	-22.1% <u>-9.1%</u>
Scenario 3: Implementation of Mitigation Measures	84,483	30,836,295	95	400	37,853	38	30,454	0	0	14	0.0%
Scenario 4: Renewable Portfolio Standard + Mitigation Measures	84,483	30,836,295	95	400	37,853	38	23,724 <u>27,683</u>	0	0	11 <u>13</u>	-22.1% <u>-9.1%</u>

Source: EDAW, 2008.
Notes: Assumes the following CCAR GRP emission factors for CO₂, CH₄, and N₂O: CO₂ = 804.54 lbs/mWh; CH₄ = 0.0067 lbs/mWh; N₂O = 0.0037 lbs/mWh.
Assumes the following GWPs from the IPCC's Second Assessment Report: CO₂ = 1; CH₄ = 21; N₂O = 310.

emissions). With full implementation of the ~~33-20~~ percent goal by ~~2020~~ 2010, electricity consumption embedded in recycled water demand would annually generate approximately ~~11-13~~ MTCO₂e in 2020, approximately ~~22-9~~ percent less than under the BAU Scenario.

Scenario 3 indicates that the proposed project does not include any measures or features that would reduce the level of demand for recycled water compared to the BAU Scenario. Therefore, the project as designed would result in a level of CO₂e emissions from electricity consumption embedded in potable water demand consistent with the BAU Scenario. Scenario 4 indicates that the approximately ~~22-9~~ percent reduction in CO₂e emissions from electricity consumption embedded in recycled water demand in 2020 would be entirely attributable to full implementation of the state's ~~33-20~~ percent renewable electricity ~~goal by 2020~~ requirement.

Park Lighting Electricity Demand

Methodology

The proposed project would install outdoor lighting for the proposed athletic fields as well as walkways and parking lots. For purposes of this analysis, it is assumed that outdoor lighting would be operated from sunset until 10 PM, 7 days a week, year-round. Based on the average time of sunset for each month,²⁰ it is estimated that outdoor lighting would be operated approximately 1,280 hours per year. It is assumed that 100 percent of the electricity demand of outdoor lighting would be purchased from the grid.

Results

As shown in Table 5-9, electricity demand from outdoor lighting would annually generate approximately 120 MTCO₂e in 2020 under the BAU Scenario. Athletic field lighting demand accounts for about 93 percent of outdoor lighting demand. GHG emissions associated with outdoor lighting demand were also calculated under full implementation of the state's ~~2005 Energy Action Plan goal requirement for investor-owned utilities~~ to generate ~~33-20~~ percent of electricity from renewable sources by ~~2020-2010~~ (Scenario 2). According to the CEC, the average for the statewide electricity mix is 10.9 percent of electricity from renewable sources as of 2006, the latest year for which data are available. As a result, the calculation assumes an additional ~~22-19.1~~ percent of grid electricity purchased to power outdoor lighting fixtures would be generated from renewable sources (i.e., sources that would have no net GHG emissions). With full implementation of the ~~33-20~~ percent ~~goal requirement~~ by 2020, electricity consumption associated with outdoor lighting demand would

²⁰ <http://www.timeanddate.com/worldclock/sunrise.html?month=12&year=2008&obj=sun&af1=-11&day=1>.

Table 5-9. Projected Annual GHG Emissions from Outdoor Lighting in 2020

Emissions Source	Lighting Types		Annual Hours of Use	Number of Lights	Electricity Consumption		Emissions (lbs)			Total Emissions (MTCO ₂ e)	Percent Change vs. BAU
					watt-hours	mWh	CO ₂	CH ₄	N ₂ O		
Athletic Field Lighting	1500	watt	1,280	158	303,360,000	303	244,065	2	1	111	n/a
Parking Lot and Walkway Lighting	70	watt	1,280	126	11,289,600	11	9,083	0	0	3	n/a
	150	watt	1,280	69	13,248,000	13	10,659	0	0	5	n/a
Scenario 1: BAU			1,280	353	327,897,600	328	263,807	2	1	120	n/a
Scenario 2: Implementation of Renewable Portfolio Standard			1,280	353	327,897,600	328	205,505 <u>239,800</u>	2	1	93 <u>109</u>	-22.1% <u>-9.1%</u>
Scenario 3: Implementation of Mitigation Measures			1,280	353	203,520,000	204	163,740	1	1	74	-37.9%
Scenario 4: Renewable Portfolio Standard + Mitigation Measures			1,280	353	203,520,000	204	127,553 <u>140,840</u>	1	1	58 <u>68</u>	-51.7% <u>-43.6%</u>

annually generate approximately ~~93-109~~ MTCO₂e in 2020, approximately ~~22-9~~ percent less than under the BAU Scenario.

Scenario 3 assumes that the proposed project would install athletic field lighting that uses on average 41 percent less electricity than conventional lighting technology over the same time period.²¹ Implementation of this measure would reduce annual emissions from outdoor lighting to approximately 74 MTCO₂e in 2020, approximately 38 percent less than under the BAU Scenario.

Scenario 4 indicates that full implementation of the state's ~~33-20~~ percent ~~goal~~ requirement by ~~2020~~ 2010 and installation of athletic field lighting with 41 percent less electricity use would reduce CO₂e emissions from outdoor lighting to approximately ~~58-68~~ MTCO₂e in 2020, about ~~52-44~~ percent less than BAU in 2020.

Construction

Construction of the proposed project would generate GHG emissions primarily associated with the operation of gasoline- and diesel-powered equipment and vehicles. CO₂ emissions associated with project-generated vehicle trips were calculated in tons per year in 2020 using URBEMIS. The results were converted to metric tons per year using the standard conversion rate of 1 ton equals 0.90718474 metric tons.

The calculation assumptions are provided in Section 3.3, Air Quality, of the EIR. Project construction would result in the one-time generation of approximately 2,519 MTCO₂ in portions of 2008 and 2009 according to URBEMIS. Since construction would be completed in 2009, construction-related emissions are not included in the scenarios for 2020. URBEMIS does not calculate CH₄ or N₂O emissions, two other GHGs associated with the combustion of gasoline and diesel fuel. However, CO₂ emissions are considered a good estimate of total GHG emissions from construction equipment and vehicle use since CH₄ and N₂O represent a negligible portion of the GHGs associated with the combustion of gasoline and diesel fuel compared to CO₂.

Additional Sources Affecting Project-related GHG Emissions

The preceding discussion does not attempt to quantify the GHG emissions associated with the management (i.e., recycling or landfilling) of solid waste generated by the proposed project. However, the landfilling of the project's solid waste would result in GHG emissions. According to Section 3.11, Public Services and Utilities, the Miramar Landfill is anticipated to receive the project's

²¹ Light-Structure Green™ from Musco Lighting. <http://www.musco.com/permanent/lightstructuregreen.html#performance%20>.

solid waste. This landfill is equipped with systems to capture landfill gas (i.e., CH₄, a powerful GHG about 21 times more potent than CO₂). The captured landfill gas is used to generate electricity, which emits CO₂ and N₂O. A portion of the landfill gas would not be captured by the systems and would be emitted into the atmosphere. The mass of GHG emissions associated with the proposed project's solid waste would also vary depending upon the types of materials in the waste stream. GHG emissions would also result from the collection of solid waste and transport to the landfill. Recycled waste would avoid the GHG emissions associated with landfilling, although the collection and transport of recycled materials would still result in emissions. Thus, management of the project's solid waste would result in GHG emissions. The proposed project does not include any measures or features that would reduce the level of solid waste sent to landfills and associated GHG emissions below a BAU Scenario.

In addition, the analysis does not attempt to quantify how the removal of existing onsite vegetation and subsequent installation of landscaping, trees, and vegetation associated with the proposed project would affect the total amount of carbon sequestered on the project site. Whether the proposed project increases or reduces the amount of carbon sequestered on site, the effect of vegetation relative to total project GHG emissions is minor.²²

Furthermore, the effect of the state's Low Carbon Fuel Standard (LCFS) on project GHG emissions is not considered in the preceding analysis. The LCFS seeks to reduce the life-cycle (i.e., production, storage, transport, and use) carbon intensity in California's transportation fuels by at least 10 percent by 2020. However, it is not known at this time what level of carbon intensity reductions would occur at which fuel life-cycle stage(s); the reduction could occur during only one life-cycle, or some combination of all four. The preceding analysis calculates the GHG emissions from fuel use due to project vehicle trips, and does not reflect GHG emissions emitted earlier in the transportation fuel life-cycle process (i.e., production, storage, and transport). Since it is now known what, if any, level of carbon intensity reductions would be achieved at the use stage of the transportation fuel life-cycle, the effect of the LCFS on the mass of GHG emissions due to the fuel associated with project vehicle trips cannot be estimated at this time.

5.5.4 Summary of GHG Emissions

As shown in Table 5-10, the vehicle trips, electricity and natural gas demand, and electricity embedded in the water demand associated with the proposed project would annually generate approximately 3,022 MTCO₂e in 2020 under the BAU Scenario. With full implementation of federal CAFE standards and the state's ~~33-20~~ percent renewable electricity ~~goal~~ requirement by ~~2020-2010~~

²² For example, the EPA reports that, over a 10-year period, a medium growth urban tree sequesters 0.039 MTCO₂. Source: <http://www.epa.gov/solar/energy-resources/refs.html#seedlings>.

Table 5-10. Summary of Projected GHG Emissions in 2020

Emissions Source	Scenario 1: BAU	Scenario 2: Implementation of Federal and State Standards	Scenario 3: Implementation of Mitigation Measures	Scenario 4: Federal and State Standards + Mitigation Measures ¹
	GHG Emissions (MTCO ₂ or MTCO ₂ e)	GHG Emissions (MTCO ₂ or MTCO ₂ e)	% Change Compared to Baseline Scenario	GHG Emissions (MTCO ₂ or MTCO ₂ e)
Vehicle Trips	2,606	1,817	-30.3%	1,817
Electricity Demand	99	77 90	-22.10% -9.1%	64 74
Natural Gas Demand	173	173	0.00%	130
Embodied Energy of Potable Water Demand	10	8 9	-22.1% -9.1%	8 9
Embodied Energy of Recycled Water Demand	14	11 13	-22.1% -9.1%	11 13
Outdoor Lighting	120	93 109	-22.1% -9.1%	58 68
Construction	2,519	n/a	n/a	n/a
Total	3,022	2,179 2,210	-27.90% -26.9%	2,087 2,110
Non transport	416	362 394	-12.89% -5.3%	270 294
Transport	2,606	1,817	-30.30% -30.3%	1,817
Reduction of non-transportation emissions	n/a	54 22	-12.89% -5.3%	146 122

Source: EDAW 2008.

¹ Emissions totals and reduction percentages under Scenario 4 do not equal the sum of the totals under Scenarios 2 and 3 because the effect of federal and state standards and project mitigation measures on project GHG emissions is different when calculated concurrently rather than separately.

(Scenario 2), the proposed project would annually generate approximately ~~2,179~~2,210 MTCO₂e in 2020, approximately ~~28~~27 percent less than under the BAU Scenario.

Scenario 3 indicates that implementation of mitigation measures that reduce building electricity and natural gas demand, swimming pool natural gas demand, and outdoor lighting electricity demand would annually generate approximately 2,916 MTCO₂e in 2020, approximately 4 percent less than under the BAU Scenario.

Scenario 4 indicates that full implementation of CAFE standards, the state's ~~33~~20 percent ~~goal~~ renewable electricity requirement, and implementation of mitigation measures would reduce emissions to approximately ~~2,087~~2,110 MTCO₂e in 2020, about ~~31~~30 percent less than BAU in 2020. Thus, Scenario 4 indicates that federal CAFE standards and the state's ~~33~~20 percent renewable electricity ~~goal~~requirement would account for most of the emissions reductions from the BAU Scenario.

As discussed previously, the California Legislature adopted the California Global Warming Solutions Act of 2006 AB 32 declaring that global climate change is "a serious threat to the economic well-being, public health, natural resources, and the environment of California" (Health and Safety Code Section 38501). AB 32 establishes a GHG emissions limit for the state in 2020 equal to the mass of GHGs emitted statewide in 1990. In December 2007, CARB approved 427 MMTCO₂e as the 1990 emissions level and 2020 emissions limit. A return to the 1990 emissions level by 2020 is considered ~~a~~28.8 an approximately 29 percent reduction from the mass of GHG emissions that would have occurred under a BAU Scenario (i.e., no changes in policy, technology or behavior to reduce GHG emissions). The timeframe and the level of the statewide emissions limit are intended to avoid the worst effects of climate change to California and the world. In essence, the legislation seeks to reduce California's contribution to the cumulative, worldwide impact of global climate change. AB 32 requires the state to achieve an absolute reduction in GHG emissions concurrent with projected population and economic growth. Although no universally accepted threshold of significance for climate change impacts exists, this analysis uses a ~~28.8~~29 percent reduction below BAU in 2020 as a gauge for determining whether the proposed project's impacts are cumulatively considerable.

As shown by the preceding analysis, implementation of state and federal mandates ~~for 2020~~ and mitigation measures (Scenario 4) would reduce the project's GHG emissions in 2020 by approximately ~~31~~30 percent compared to the BAU Scenario, which is consistent with the roughly ~~28.8~~29 percent reduction sought by AB 32. Although the project would result in additional GHG emissions associated with the landfilling of project-generated solid waste, such emissions are not anticipated to substantially change the project's emissions under the four scenarios. When considering solid waste-related emissions, the project's percentage reduction relative to the BAU Scenario is still considered consistent with the reduction from BAU sought by AB 32.

Moreover, the results of Scenario 3 indicate that the proposed mitigation measures would reduce the mass of GHG emissions by about 4 percent below the BAU Scenario, which shows that most of the reductions achieved under Scenario 4 would be achieved by state and federal mandates, particularly federal CAFE standards. However, approximately 89 percent of the emissions under Scenario 3 are the result of project-generated vehicle trips. There are no feasible mitigation measures through which the proposed project could bring about a substantial reduction in ADTs, VMT, or fuel consumption, or increase the use of alternative transportation modes for project-related trips. In other words, vehicle trip-related GHG emissions are largely beyond the control of the proposed project. As discussed previously, the proposed project would contribute to reduced vehicle trip-related GHG emissions by locating a community park in closer proximity to residents who currently drive relatively farther distances to access a community park with comparable facilities.

Since GHG emissions related to vehicle trips are largely beyond the project's control and the project contributes to reduced VMT, the analysis differentiates between transportation and nontransportation emissions (electricity, natural gas, and water demand), which are within the project's control. As shown in Table 5-10, implementation of project mitigation measures would reduce the nontransportation emissions associated with the proposed project by approximately ~~25~~-26 percent compared to the BAU Scenario, which is generally consistent with the reduction from BAU sought by AB 32.

In conclusion, the implementation of state and federal mandates and project mitigation measures (Scenario 4) would reduce the project's annual GHG emissions in 2020 by approximately ~~31~~-30 percent compared to a BAU Scenario. Although a sizeable portion of the total reduction is attributed to implementation of CAFE standards, the proposed project would implement mitigation measures that would achieve a substantial reduction in annual GHG emissions from nontransportation sources of about ~~25~~-26 percent compared to a BAU Scenario. Therefore, the proposed project's substantial reduction in total emissions achieved with implementation of state and federal mandates and project mitigation measures (Scenario 4) is considered consistent with the roughly ~~28.8~~-29 percent reduction in GHG emissions from a BAU Scenario sought by AB 32. As a result, the project's incremental contribution to global climate change is considered mitigated to below a level of significance.

5.5.5 Mitigation Measures

Mitigation Measure Climate Change-1: The following feasible mitigation measures will be implemented to mitigate the project's contribution to climate change:

5 Cumulative Impacts

- a. The proposed buildings will achieve energy performance equivalent to at least a 17.5 percent improvement over Title 24 Energy Efficiency Standards (equivalent to 3 points under LEED™ for New Construction Version 2.2 Energy and Atmosphere Credit 1).
- b. The proposed swimming pools will have a demand for electricity at least 17.5 percent lower than the Carlsbad Swim Complex.
- c. Solar heating will be used to meet at least 25 percent of the swimming pool's demand for natural gas.
- d. Athletic field lights will feature Light-Structure Green™ fixtures from Musco Lighting, or comparable lighting fixture(s), which on average use 41% less electricity compared to conventional lighting technology.

Timing: Compliance with Mitigation Measures Climate Change-1a, 1b, 1c, and 1d must be demonstrated prior to approval of a building permit.

Responsibility: The City of Encinitas Parks and Recreation Department shall be responsible for incorporating the measures into the design of the project. The Planning and Building Department shall be responsible for ensuring the requirements are incorporated into the Major Use Permit for the project. The City of Encinitas Planning and Building Department shall be responsible for review and incorporation of building permit provisions. The City shall be responsible for ensuring that the construction contractors implement the measures according to the building permit specifications.

Significance after Mitigation: As discussed above, implementation of the proposed feasible mitigation measures would reduce the proposed project's incremental contribution to global climate change to a level less than significant.

This page intentionally left blank.

CHAPTER 6

OTHER CEQA-RELATED DISCUSSIONS

6.1 UNAVOIDABLE SIGNIFICANT IMPACTS

As required by CEQA Guidelines Section 15126.2(b), an EIR must describe any significant impacts that cannot be avoided, including those impacts that can be mitigated but not reduced to a less than significant level. Chapter 3 of this EIR describes the potential environmental impacts of the Hall Property Community Park and recommends mitigation measures to reduce impacts, where feasible. As discussed in this EIR, implementation of the proposed project would result in significant impacts to transportation and circulation, noise, air quality, aesthetics and lighting, hazardous materials, hydrology and water quality, geology and paleontology, biological resources, cultural resources, and public services and utilities. However, most of these impacts would be mitigated to below a level of significance with implementation of mitigation measures identified in this EIR.

The following significant impacts cannot be mitigated to a less than significant level and therefore are considered significant, unavoidable impacts. These unavoidable adverse impacts would require a Statement of Overriding Considerations if the project were to be approved by the City.

Impact Traffic-1: Existing + Project Intersections

Under existing plus project conditions, the project would cause significant impacts at six intersections: (a) Devonshire Drive/Rubenstein Drive/Santa Fe Drive; (b) I-5 Southbound Ramps/Santa Fe Drive; (c) Villa Cardiff Drive/Windsor Road; (d) Villa Cardiff Drive/Birmingham Drive; (e) I-5 Northbound Ramps/Birmingham Drive; and (f) I-5 Southbound Ramps/Birmingham Drive.

Of these intersections, Impacts Traffic-1b, 1d, 1e, and 1f would be significant and unavoidable because the necessary mitigation to reduce these impacts to less than significant is part of the independently planned Caltrans I-5 widening project and the City does not have the capability to implement the improvements.

Impact Traffic-3: 2010 Intersections

Under the 2010 study scenario, the project would cause significant impacts at six intersections: (a) Alley/Santa Fe Drive; (b) I-5 Southbound Ramps/Santa Fe Drive; (c) Villa Cardiff Drive/Windsor

Road; (d) Villa Cardiff Drive/Birmingham Drive; (e) I-5 Northbound Ramps/Birmingham Drive; and (f) I-5 Southbound Ramps/Birmingham Drive.

Of these intersections, Traffic 3b, 3d, 3e, and 3f would be significant and unavoidable because the necessary mitigation to reduce these impacts to less than significant is part of the independently planned Caltrans I-5 widening project and the City does not have the capability to implement the improvements.

Impact Traffic-7: Special Events Traffic

During special events at the park, such as large soccer tournaments, traffic impacts may occur at two intersections: (a) the I-5 Southbound Ramps/Santa Fe Drive and (b) Alley/Santa Fe Drive intersections.

The impact at the I-5 Southbound Ramps/Santa Fe Drive (Traffic-7a) would be significant and unavoidable because the necessary mitigation to reduce this impact to less than significant is part of the independently planned Caltrans I-5 widening project and the City does not have the capability to implement the improvements.

6.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE CAUSED BY THE PROPOSED PROJECT

Section 21100(b)(2)(B) of the CEQA Statutes and Section 15126.2(c) of the CEQA Guidelines require that an EIR analyze the extent to which the proposed project's primary and secondary effects would impact the environment and commit nonrenewable resources to uses that future generations would not be able to reverse. "Significant irreversible environmental changes" include the use of nonrenewable natural resources during the initial and continued phases of the project, should this use result in the unavailability of these resources in the future. Primary impacts and, particularly, secondary impacts generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with projects. Irretrievable commitments of these resources are required to be evaluated in an EIR to ensure that such consumption is justified (CEQA Guidelines §15126.2(c)).

Approval of the Hall Property Community Park project would cause irreversible environmental changes consisting of the following:

- Commitment of land that will be physically altered to create the park's facilities, roadways, and trails. The relatively small commitment of land to these uses is considered less than significant when compared to other development in a local and regional context, the surrounding urban built environment, and the residential development that could occur on the site under current zoning.

- Alteration of the human environment as a consequence of the development process. The project, which represents a commitment of land to community park use, changes the agricultural land use previously occurring on the project site. The use of the site for community park purposes is consistent with planned uses for the site.
- Increased requirements of public services and utilities for the project, which represents a permanent commitment of these resources. Service providers have indicated adequate supply of energy, water, and wastewater resources to supply the project and the ability to provide fire protection, police protection, emergency medical service, and solid waste services (see Section 3.11, Public Services and Utilities).
- Use of various nonrenewable natural resources for project construction and operations, such as diesel, gasoline, or oil for construction equipment and natural gas or other fossil fuels used to provide power and heating sources to buildings and lighting within the park. The energy consumed in developing and maintaining the site may be considered a permanent investment. The proposed project would not use nonrenewable fossil fuels at a greater rate than other typical construction projects. If this project were not to occur, more resources would likely be used to develop housing on the project site's residentially zoned land. The proposed project would not increase the overall rate of use of any nonrenewable natural resource or result in the substantial depletion of any nonrenewable resource.
- Use of various renewable natural resources, such as water, lumber, and soil, for construction and operations. The proposed project is a relatively minor consumer of these supplies when compared to other local and regional users. The project's use of reclaimed water for landscaping would also reduce demand for potable water. The proposed project would not increase the overall rate of use of any renewable natural resource or result in the substantial depletion of any renewable resource.

6.3 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

No Initial Study was prepared to focus the scope of this EIR because this document addresses nearly every environmental topic required for analysis by CEQA. The four issues that are not explicitly addressed in Chapter 3 of this EIR are addressed below.

Recreation

The project would provide new recreational resources, in an area identified for a community park in the Encinitas General Plan. The project would not increase the use of existing parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. The project may even reduce the impacts on existing parks in Encinitas by providing

additional recreational facilities. The potential environmental effects of development of the Hall Property Community Park are addressed in Chapter 3 of this EIR.

Mineral Resources

In addition, no detailed analysis of mineral resources is provided because the project area is not delineated as a locally important mineral resource recovery site in the Encinitas General Plan. Development of the park would be in a previously disturbed area that is not known to contain mineral resources of local, regional, or statewide value. Thus no impacts to mineral resources are anticipated.

Airport Safety

The proposed project is located approximately 7 miles southwest of the McClellan Palomar Airport in the city of Carlsbad. No activities that would take place within the park would result in hazards to aircraft or airports. The proposed project does not propose any structures that would impede, cause a change to, or interfere with air traffic patterns or safety. The tallest feature on the project site would be the athletic field light poles that would range up to 90 feet tall. These poles would not interfere or create a hazard to airport facilities or aircraft operations.

Groundwater Use

The proposed project would not result in the lowering of the local groundwater table as no well use is proposed. Septic use is also not proposed on the project site. The project would receive water from the SDWD as detailed in Section 3.11, Public Services and Utilities. The project would not deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume as water from a local aquifer would not be used to supply the project. The SDWD imports a majority of its water supply rather than using local aquifers and other nonpotable park water use would be supplied through recycled water.

Energy

The project site currently consumes a minimal amount of energy as the property is generally vacant and unused. There are a few sources of energy consumption onsite, such as the outdoor security light near the metal warehouse, which is turned on nightly. The site currently does not generate vehicle trips.

Construction of the project would require energy use associated with typical construction equipment and vehicle trips to the site for both material delivery and workers. Energy consumption during construction would be minimized as earthwork would be balanced onsite and no soil import or export would be required. The majority of the site is open turf areas and would require a relatively small amount of construction work, including field leveling and installation of irrigation and turf. Energy

consumption would also occur during construction of structures, including the teen center, restrooms/concessions, and aquatic center. The energy used for construction of the park would be similar in nature to that of other construction activities in the region and would not generate a substantial increased demand for energy.

Operation of the park would consume more energy than is currently used by the project site; however, the energy demand would be less intense than that of other typical urban land uses as the majority of the park is open turf fields and facilities such as tot lots, amphitheatre, trails, dog park, and other park features that do not require energy for general use. Buildings, such as the teen center, restrooms/concessions, and aquatic center would require energy in the form of electricity and natural gas for operation. Other park components that would use energy include water conveyance, operation of the irrigation system, parking lot lighting, and athletic field lighting if approved as part of the project. Energy use would be necessary in the form of fuel for general maintenance activities such as mowing and other landscaping upkeep. Energy would also be consumed in the form of fuel for vehicle trips to the project site. The project is anticipated to generate approximately 2,600 daily trips (LLG 2006).

The placement of a park with a variety of recreational opportunities in the urbanized area of Encinitas may serve to reduce longer vehicle trips that are currently necessary due to the shortage of local recreational facilities in the City, as Encinitas residents currently travel further to reach community park facilities. The energy consumption associated with both construction and operation of the park is standard for this type of development and no component is wasteful or creates an excessive or inefficient use of energy. For these reasons, the project would have a **less than significant** impact to energy use.

6.4 GROWTH INDUCEMENT

As required by CEQA, this EIR must discuss ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding area (CEQA Guidelines, §15126.2). Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place in the absence of the proposed project. A project can be determined to have a growth-inducing impact if it directly or indirectly causes economic or population expansion through the removal of obstacles to growth or encourages or facilitates other activities that could significantly affect the environment; actions that are sometimes referred to as “growth accommodating.”

The proposed Hall Property Community Park project site is located in Encinitas and would provide recreational facilities for the surrounding community. The total population of Encinitas based on the

2000 Census was 58,014 and is estimated to be 62,774 in 2005 (SANDAG 2005). By the year 2030, this population is forecast to increase to 71,025 people. This growth represents a 22 percent increase over the 2000 population (SANDAG 2005).

The proposed project is consistent with the site's land use designation in the Recreation Element of the General Plan as a Special Use Park. The site is zoned for residential use but can be used for public park purposes through a Conditional Use Permit. The proposed park development is needed to contribute in part to address an identified parkland deficiency as defined in the General Plan. The proposed park would work towards meeting the parkland per resident goal for existing Encinitas residents.

The proposed Hall Property Community Park would not result in the creation of new residences on the project site and thus would not result in direct growth within Encinitas. The development of the park would result in the preservation of 44± acres as recreational open space within an urbanized area. The areas surrounding the project site generally consist of residential development on a combination of smaller and larger sized lots with commercial properties to the north. The surrounding areas are zoned R-3, R-5, GC, and OP. As a community-serving park, the project is not expected to foster economic or population growth. Any potential infill development in the area would be expected with or without implementation of the Hall Property Community Park, based on the overall regional growth and demand for housing.

In addition, because the park would be developed at a site in the "interior" developed portion of the city, the provision of a new park is not likely to encourage or entice new residents to move to the Encinitas area. For example, if the park site was located on the outskirts of the city near undeveloped land, it is possible that the park would serve as an amenity that would attract new residential development to the immediate area. However, because the communities surrounding the proposed park site are generally built-out with little room for additional new development, the park would not result in substantial growth in the area.

The project site is currently served by existing roadways, utilities, and public services; the proposed Hall Property Community Park project would not result in offsite infrastructure or service expansions that could serve and accommodate other future development. For these reasons, implementation of the Hall Property Community Park project would not result in primary or secondary environmental effects related to additional growth.

CHAPTER 7

ALTERNATIVES ANALYSIS

The Hall Property Community Park project, as proposed by the City, has been described and analyzed in the previous chapters with an emphasis on potentially significant impacts and recommended mitigation measures to reduce these impacts. The CEQA Guidelines also require the description and comparative analysis of a range of reasonable alternatives.

The following discussion is intended to inform the public and decision makers of some of the project alternatives that could be developed and the positive and negative aspects of those alternatives when compared to the proposed project. This chapter also includes analysis of the No Project Alternative, as required by CEQA.

As described in Section 2.4, Encinitas has a shortage of active recreational facilities and parkland. The Recreation Element of the General Plan acknowledges this shortage, and sets out goals and policies for increasing park facilities in the City accordingly. Section 2.4.1 lists these policies and goals in more detail. As detailed in Section 2.4.1, a Specialized Facilities Needs Assessment prepared in 2007 identified a shortage of specific types of recreational facilities, such as baseball, softball, and soccer fields, among others.

The project objectives were developed with the intent to guide the design of a park that would address the shortage of active recreational facilities in the city. Many of the project objectives are geared towards developing a wide variety of active recreational facilities that can be enjoyed by all user groups and thus, offset Encinitas' unmet recreational needs. Other objectives are based on fundamental land use planning principles, such as providing multiple entry points and buffers between adjacent areas. The basic objectives of the project are set forth in Section 2.3 of this EIR.

The CEQA Guidelines direct lead agencies that the “range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects” (Section 15126.6(c)). Each of the alternatives examined in this EIR was chosen based on the alternative’s ability to lessen or avoid significant impacts that have been identified in Chapter 3 and based upon its ability, to the greatest extent possible, to meet most of the basic project objectives. The alternatives analysis evaluates each issue area in comparison to the proposed project. The alternative analysis also discusses the relative ability of each alternative to achieve the project objectives.

The following seven project alternatives are compared in this chapter:

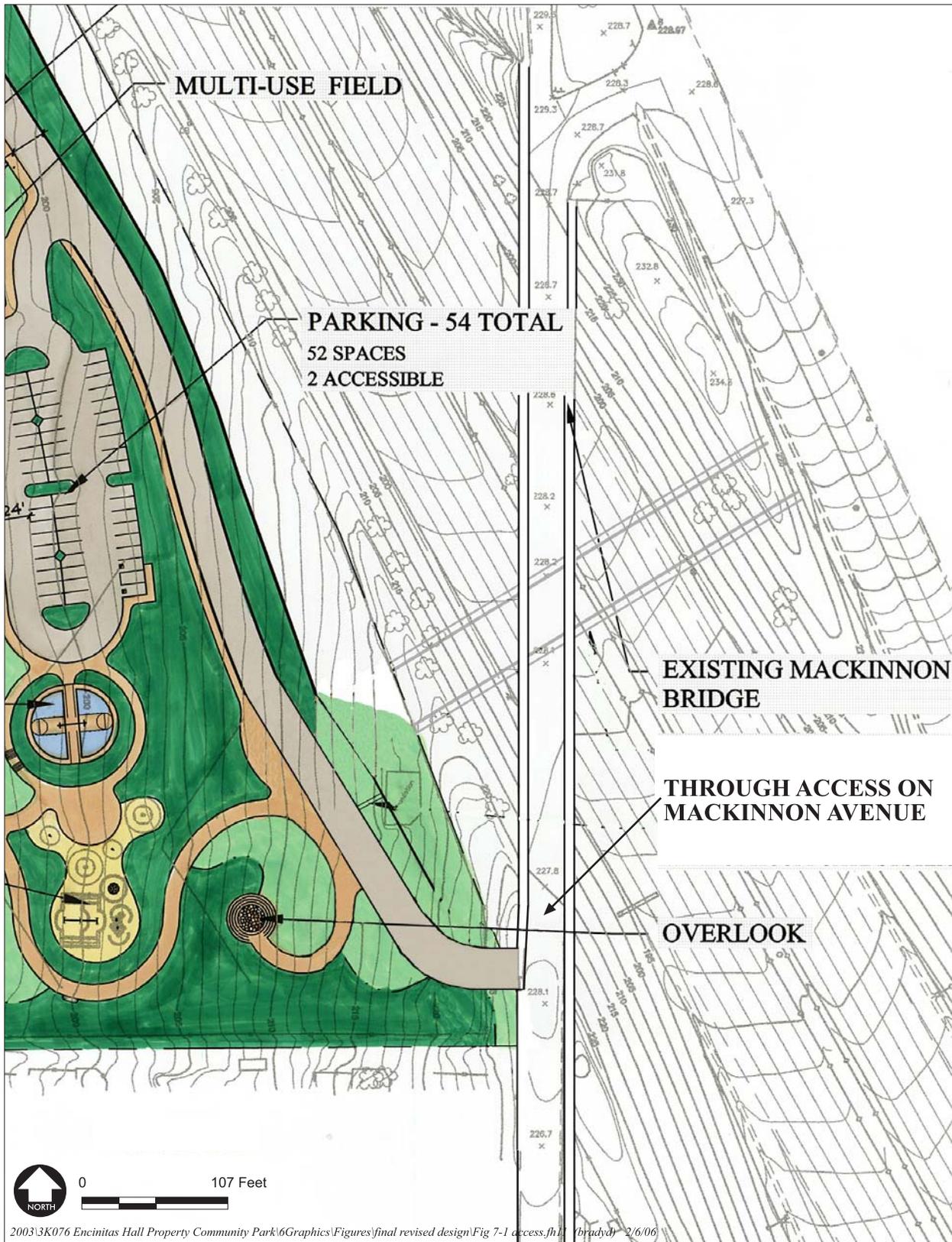
1. Through Access on Mackinnon Avenue Alternative
2. Reduced Intensity Alternative
3. Citizens for Quality of Life Alternative
4. No Athletic Field Lighting Alternative
5. No Project-Development of Residential per Zoning Alternative
6. No Project-No Build Alternative
7. Offsite Location-Strawberry Fields Alternative

In the following sections, each alternative is first described and then analyzed in consideration of the proposed project, according to whether it would have a beneficial or adverse effect. Section 7.8 summarizes these findings and concludes which alternative is the environmentally superior alternative.

7.1 ANALYSIS OF THROUGH ACCESS ON MACKINNON AVENUE ALTERNATIVE

7.1.1 Through Access on Mackinnon Avenue Alternative Description

Chapter 3.2 identifies several traffic impacts that would result with implementation of the proposed project, which would include the introduction of a cul-de-sac at Mackinnon Avenue in the vicinity of the southern entrance to the park. Because the elimination of through travel across I-5 from Mackinnon Avenue to Villa Cardiff Drive has been identified as a cause of several circulation impacts, an alternative that retains the current circulation configuration at Mackinnon Avenue is examined in this EIR. In this alternative, through traffic would be maintained across the freeway on Mackinnon Avenue from both directions of travel. West of I-5, Mackinnon Avenue would pass directly adjacent to the southeast corner of the proposed park. At this location, a “T” intersection would be constructed to provide access into the park. A new entrance road would enter the park, forming the “T” intersection with Mackinnon Avenue. This access alternative is depicted in Figure 7-1. It is assumed that this would not be a signalized intersection; rather it would be controlled with a stop sign at the park exit. No special emergency access would be required as the through traffic flow on Mackinnon Avenue would remain. The Through Access on Mackinnon Avenue Alternative was developed and included for analysis to provide an alternative that could reduce potential traffic impacts that would result with the proposed project, which includes the closure of through traffic on Mackinnon Avenue.



**Figure 7-1
Through Access on Mackinnon Avenue Alternative**

Under this alternative, all other characteristics of the proposed project would remain the same in order to clearly ascertain the comparative implications of closing Mackinnon Avenue to through traffic versus continuing to allow through travel, as is currently possible.

The Traffic Impact Analysis contained in Appendix B considers the Through Access on Mackinnon Avenue Alternative at an equal level of detail as the proposed project, including the provision of detailed analyses for near-term and long-term conditions, as well as recommendations for specific mitigation measures to address traffic and circulation impacts under this alternative. These impacts and mitigation measures are summarized in Table 7-1. All other environmental effects remain essentially the same, as discussed in more detail in the following sections. The alternative traffic and circulation mitigation measures detailed in Table 7-1, in combination with the analyses and mitigation measures provided in this EIR for all other environmental topics, provide a full consideration of the environmental effects that could occur under this alternative.

7.1.2 Through Access on Mackinnon Avenue Alternative Effects

Land Use and Public Policy

Because the park development would be identical in the Through Access on Mackinnon Avenue Alternative when compared to the proposed project, impacts related to land use and public policy would be the same. Like the proposed project, this alternative would not result in any environmental impacts related to land use.

Traffic and Circulation

When compared to the proposed project, the Through Access on Mackinnon Avenue Alternative would avoid significant effects at the following intersections under the Existing + Project scenario:

- Villa Cardiff Drive/Windsor Road
- Villa Cardiff Drive/Birmingham Drive

For both of these intersections, the AM peak hour would be LOS C under the Existing + Project weekday scenario for the Through Access on Mackinnon Avenue Alternative. Under the proposed project, these intersections would operate at LOS F under the AM peak hour. In addition, although significant effects would continue to occur at the I-5 Northbound Ramps/Birmingham Drive and the I-5 Southbound Ramps/Birmingham Drive intersections, the Through Access on Mackinnon Avenue Alternative would not contribute as much traffic to these intersections.

Table 7-1. Comparison of Impacts and Mitigation Measures required for the Proposed Project and the Through Access on Mackinnon Avenue Alternative

Location	Through Access on Mackinnon Avenue Alternative				Proposed Project (Elimination of Through Access on Mackinnon Avenue)			
	Impact Timing			Mitigation Measure	Impact Timing			Mitigation Measure
	Exist. + Project	2010	2030		Exist. + Project	2010	2030	
Intersections								
Devonshire Dr. / Rubenstein Dr. / Santa Fe Dr.	X			<ul style="list-style-type: none"> The recently constructed roundabout at this intersection mitigates project and cumulative projects impact 	X			<ul style="list-style-type: none"> The recently constructed roundabout at this intersection mitigates project and cumulative projects impact
I-5 Southbound Ramps / Santa Fe Dr.	X	X	X	<ul style="list-style-type: none"> Provide a traffic signal or roundabout at this intersection 	X	X	X	<ul style="list-style-type: none"> Provide a traffic signal or roundabout at this intersection
Villa Cardiff Dr. / Windsor Rd.				N/A	X	X	X	<ul style="list-style-type: none"> Provide all-way stop control or roundabout at this intersection
Villa Cardiff Dr. / Birmingham Dr.			X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with a dedicated right-turn lane at the southbound approach Or, provide a roundabout 	X	X	X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with a dedicated right-turn lane at the southbound approach Or, provide a roundabout
I-5 Northbound Ramps / Birmingham Dr.	X	X	X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with an additional through lane at the westbound approach, and a dedicated through and left-turn lane at the eastbound approach Or, provide a roundabout 	X	X	X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with an additional through lane at the westbound approach, and a dedicated through and left-turn lane at the eastbound approach Or, provide a roundabout
I-5 Southbound Ramps / Birmingham Dr.	X	X	X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with a dedicated through and left-turn lane at the westbound approach, and an additional through lane at the eastbound approach Or, provide a roundabout 	X	X	X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with a dedicated through and left-turn lane at the westbound approach, and an additional through lane at the eastbound approach Or, provide a roundabout
Alley / Santa Fe Dr.		X	X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with dedicated right-turn and left-turn lanes on the northbound approach Or, provide a roundabout 		X	X	<ul style="list-style-type: none"> Provide a traffic signal at this intersection with dedicated right-turn and left-turn lanes on the northbound approach Or, provide a roundabout

Location	Through Access on Mackinnon Avenue Alternative			Mitigation Measure	Proposed Project (Elimination of Through Access on Mackinnon Avenue)			Mitigation Measure
	Impact Timing				Impact Timing			
	Exist. + Project	2010	2030		Exist. + Project	2010	2030	
Scripps Hospital Driveway / Santa Fe Dr.			X	<ul style="list-style-type: none"> If the Scripps Hospital Master Plan (Case #06-066) is approved, the City shall provide a fair-share contribution towards a future roundabout, or other future intersection improvements deemed acceptable by the Engineering Services Department, that would serve the intersection of Scripps Hospital Driveway/Santa Fe Drive. 			X	<ul style="list-style-type: none"> If the Scripps Hospital Master Plan (Case #06-066) is approved, the City shall provide a fair-share contribution towards a future roundabout, or other future intersection improvements deemed acceptable by the Engineering Services Department, that would serve the intersection of Scripps Hospital Driveway/Santa Fe Drive.
Street Segments								
Santa Fe Dr.: Santa Fe Plaza Driveway to I-5 Southbound Ramps			X	<ul style="list-style-type: none"> Provide intersection improvement to the I-5 southbound ramps/Santa Fe Drive and Scripps Hospital Driveway/Santa Fe Drive intersections. The improvement of these key intersections along the impacted segment would mitigate the segment impact. 			X	<ul style="list-style-type: none"> Provide intersection improvement to the I-5 southbound ramps/Santa Fe Drive and Scripps Hospital Driveway/Santa Fe Drive intersections. The improvement of these key intersections along the impacted segment would mitigate the segment impact.
Santa Fe Dr.: Mackinnon Ave. / Nardo Rd. to Windsor Rd. / Bonita Dr.	X	X		<ul style="list-style-type: none"> Provide a dedicated eastbound right-turn lane on Santa Fe Drive and Windsor Road. The improvement of this key intersection along the impacted segment would mitigate the segment impact. 	X	X	X	<ul style="list-style-type: none"> Provide a dedicated eastbound right-turn lane on Santa Fe Drive and Windsor Road. The improvement of this key intersection along the impacted segment would mitigate the segment impact.
Birmingham Dr.: I-5 Northbound Ramps to Villa Cardiff Dr.				N/A			X	<ul style="list-style-type: none"> The Birmingham Dr. / Villa Cardiff and Birmingham Dr. / I-5 Northbound Ramps intersection mitigation measures would mitigate the street segment impact to a level of service below what would be considered significant.

In addition to avoiding these intersection impacts, the Through Access on Mackinnon Avenue Alternative would also avoid direct impacts to the Mackinnon Avenue/Nardo Road and Windsor Road/Bonita Drive street segment of Santa Fe Drive. This street segment would continue to operate at LOS D under the Through Access on Mackinnon Avenue Alternative, while it would operate at LOS E with the addition of the proposed project and the resultant redistribution of traffic.

In addition to this comparison of direct impacts, the Traffic Impact Analysis (Appendix B) contains a full cumulative analysis of the Through Access on Mackinnon Avenue Alternative for years 2010 and 2030. The Through Access on Mackinnon Avenue Alternative would avoid cumulative impacts that would result from the proposed project at the Villa Cardiff Drive/Birmingham Drive intersection and the Birmingham Drive Street segment between the I-5 northbound ramps and Villa Cardiff Drive.

A comparison of the impacts and mitigation measures that would be required for implementation of the proposed project and the Through Access on Mackinnon Avenue Alternative is provided in Table 7-1. As shown in this table, implementation of the Through Access on Mackinnon Avenue Alternative would avoid the need to provide circulation improvements at the Villa Cardiff Drive/Windsor Road and Villa Cardiff Drive/Birmingham Drive intersections in the immediate timeframe. In addition, the Through Access on Mackinnon Avenue Alternative would not result in any additional significant circulation impacts when compared to the proposed project. Increased traffic and parking demand due to special events held at the park three to four times a year would be similar to the proposed project. For these reasons, the Through Access on Mackinnon Avenue Alternative is environmentally superior to the proposed project from a traffic and circulation perspective.

Air Quality

The proposed Hall Property Community Park project would not result in any significant impacts to air quality beyond the potential for contaminated dust particles during construction operations. The Through Access on Mackinnon Avenue Alternative would also require construction activities that would cause a similar potential impact. Similar to the proposed project, the potential impact could be mitigated to below a level of significance. The Through Access on Mackinnon Avenue Alternative would generate less traffic congestion; thus, traffic impacts and the resulting vehicle emissions would be less than the proposed project. For this reason, this alternative would result in slightly less air emissions from mobile sources. This alternative would have reduced air quality emissions; however, neither the proposed project nor the Through Access on Mackinnon Avenue Alternative would result in significant air quality impacts.

Noise

The significant noise impacts resulting from the proposed project would occur from operation of the park. No noise impacts associated with traffic would result from the proposed project. Because the Through Access on Mackinnon Avenue Alternative would not result in any differences in the design or operation of the park when compared to the proposed project, noise impacts would be similar to the proposed project.

Aesthetics and Lighting

Because the park development would be identical for the Through Access on Mackinnon Avenue Alternative when compared to the proposed project, impacts related to aesthetics and lighting would be considered similar.

Hazardous Materials

The Through Access on Mackinnon Avenue Alternative and the proposed project would have the same potentially significant impacts related to exposure to contaminated soils and ACMs. All of these impacts could be reduced to a less than significant level with implementation of the mitigation measures recommended in this EIR. Therefore, the Through Access on Mackinnon Avenue Alternative would be considered similar to the proposed project with respect to hazardous materials.

Hydrology and Water Quality

Like the proposed project, the Through Access on Mackinnon Avenue Alternative would have the potential to create soil and pollution transport in storm water runoff. These impacts could be reduced to a less than significant level with implementation of mitigation measures identified in this EIR. For these reasons, the Through Access on Mackinnon Avenue Alternative would be considered similar to the proposed project from a hydrology and water quality perspective.

Geology and Paleontology

Because the Through Access on Mackinnon Avenue Alternative would result in the same level of construction and ground disturbance as the proposed project, it would have the same potential to affect paleontological resources. Thus, it would be considered similar to the proposed project with respect to geology and paleontology.

Biological Resources

Provision of through access on Mackinnon Avenue would not alter the analysis of biological resources conducted for the proposed project and identical impacts would result with development of this alternative. Thus, the Through Access on Mackinnon Avenue Alternative would be considered similar to the proposed project from a biological resources perspective.

Cultural Resources

No known cultural resources are known to exist at the site. However, it is impossible to be sure about the presence or absence of cultural resources until the ground is disturbed. Because the Through Access on Mackinnon Avenue Alternative would result in the same level of construction and ground disturbance as the proposed project, it would have the same potential to affect buried cultural resources. Thus, it is considered similar to the proposed project with respect to cultural resources.

Public Services and Utilities

Provision of through access on Mackinnon Avenue would not alter the analysis of public services and utilities conducted for the proposed project and identical impacts would result with development of this alternative. Thus, the Through Access on Mackinnon Avenue Alternative would be considered similar to the proposed project from a utilities and public services perspective.

Agriculture

The Through Access on Mackinnon Avenue Alternative would develop the same parcel of land as evaluated under the proposed project. Therefore, similar to the proposed project, the Through Access on Mackinnon Avenue would not convert agricultural land with a significant LESA score to a developed urban use and would not result in impacts to agricultural resources.

Population and Housing

Provision of through access on Mackinnon Avenue would not alter the analysis of population and housing conducted for the project. Thus, the Through Access on Mackinnon Avenue Alternative would be considered similar to the proposed project from a population and housing perspective.

Global Climate Change

The Through Traffic on Mackinnon Avenue Alternative would generate the same traffic volumes as anticipated for the proposed project. However, significant traffic impacts would be lessened with this alternative, thus vehicles would spend less time idling in congested traffic conditions. For this reason, the alternative would result in less greenhouse gas emissions related to vehicle operations. As all other park components would remain the same, this alternative would have similar greenhouse gas emissions related to general park operation.

Project Objectives

The Through Access on Mackinnon Avenue Alternative would provide for a community park that meets all of the project objectives. The recreational facilities provided by the Through Access on Mackinnon Avenue Alternative would be the same as those provided by the proposed project. Similar to the proposed project, the Through Access on Mackinnon Avenue Alternative would provide a variety of recreational facilities, athletic fields that help to offset the unmet needs of Encinitas, and recreational facilities for all user groups. In addition, multiple vehicular and pedestrian access points would be provided; compared to the proposed project, more varied access would be accommodated by allowing patrons to access the park from Mackinnon Avenue, south of the park via Birmingham Drive.

7.2 ANALYSIS OF REDUCED INTENSITY ALTERNATIVE

7.2.1 Reduced Intensity Alternative Description

This alternative would develop a community park on the project site. However, the community park proposed in this alternative would be less intensive than the proposed project. Intensity of the park would be reduced through the elimination of certain park components. A majority of the project site would be left as passive, recreational uses and open space. The Reduced Intensity Alternative would not include an aquatic center, basketball court, teen center, or amphitheatre. The number of ball fields and multi-use fields would be reduced to a total of three fields, thus reducing the amount of active sport leagues games and activities. Special events, as anticipated for the proposed project would not occur under this alternative due to the lack of appropriate facilities to host such events, such as an adequate number of athletic fields, teen center, or amphitheatre. This alternative would not include athletic field lighting. The lighting proposed for areas other than the athletic fields, such as the parking lots, pedestrian walkways, skate park, etc., would be included in this alternative. The Reduced Intensity Alternative was developed in response to public comment and controversy

regarding the intensity and types of park uses. This alternative provides a scenario with less intensive use of the site and more passive park components.

7.2.2 Comparison of Reduced Intensity Alternative Effects

Land Use and Public Policy

Like the proposed project, the Reduced Intensity Alternative would not result in any environmental impacts related to land use. Specifically, this alternative would not divide an established community or conflict with a policy or plan adopted for the purpose of environmental protection. Development of parkland is allowed within the site's R3 zoning with a Conditional Use Permit-Major. Because no land use designation or zoning changes would be necessary, and it is assumed that development would occur according to General Plan policies, no conflicts with the City's plans or policies are expected. Similar to the proposed project, this alternative would be compatible with the surrounding development. The Reduced Intensity Alternative would be considered similar to the proposed project from a land use perspective.

Traffic and Circulation

The Reduced Intensity Alternative would not include a dog park, amphitheatre, or aquatic center and there would be fewer athletic fields. In addition, the athletic fields would not be used after dark. With removal of these park facilities, this alternative would result in substantially fewer vehicle trips accessing the project site and thus would reduce the significant traffic impacts of the project for intersection and segment operations. However, impacts to some of the poorly operating intersections, such as the I-5 on- and off-ramps that currently operate at LOS F, would likely still occur with the Reduced Intensity Alternative. [Because there would be fewer athletic fields and other recreation facilities, it is likely that special events held at the park would not generate as substantial traffic trips or parking demand as special events anticipated for the proposed project.](#) Similar to the proposed project, potential traffic impacts from this alternative could be mitigated to below a level of significance. Construction traffic would be slightly less as there would be reduced development occurring on the site, though this would not be a substantial difference in traffic volumes as compared to the proposed project.

Air Quality

The proposed Hall Property Community Park project would not result in any significant impacts to air quality beyond the potential for contaminated dust particles during construction operations. The Reduced Intensity Alternative would also require construction activities that would cause a similar

potential impact. Similar to the proposed project, the potential impact could be mitigated to below a level of significance. The Reduced Intensity Alternative would generate less traffic volume; thus, traffic impacts would be less than the proposed project. For this reason, this alternative would result in slightly fewer air emissions from mobile sources. Neither the project nor the Reduced Intensity Alternative would result in significant air quality impacts.

Noise

Because the Reduced Intensity Alternative would not include a dog park, the significant noise impacts attributable to this use would not occur. Also, without special events on the athletic fields, no amplification would take place, and thus the noise impacts associated with amplification at the athletic fields would not occur. This alternative would avoid the significant noise impacts that these features would create with the proposed project. However, these noise impacts of the proposed project could be mitigated to a less than significant level with the development of noise walls. In addition, this alternative would result in less grading and construction onsite, which would reduce the duration of construction-related noise impacts. Overall, the Reduced Intensity Alternative would ~~likely~~ have fewer noise impacts than the proposed project.

Aesthetics and Lighting

The Reduced Intensity Alternative would not include athletic field lighting. Therefore, this alternative would avoid a significant impact of the proposed project related to light trespass onto adjacent properties from the athletic field lighting. The other visual effects of the project would be similar in this alternative. The Reduced Intensity Alternative would have fewer lighting impacts when compared to the proposed project.

Hazardous Materials

The Reduced Intensity Alternative and the proposed project would have the same potentially significant impacts related to exposure to contaminated soils and asbestos-containing materials. However, all of these impacts could be mitigated to a less than significant level with implementation of mitigation measures recommended in this EIR. Because this alternative would not include the aquatic center, the use and potential storage of chlorine and other pool chemicals associated with the proposed project would not occur. However, because the use of hazardous materials is regulated and no unusual use is expected with the project, this difference is not substantial. For these reasons, the Reduced Intensity Alternative would be considered similar to the proposed project with respect to hazardous materials.

Hydrology and Water Quality

Like the proposed project, the Reduced Intensity Alternative would have the potential to create soil and pollution transport in storm water runoff. Although there would be less grading and construction, the significant effects of soil runoff and erosion would still occur with construction. Similarly, although there may be fewer parking places and less impervious cover, the significant effects of pollutant loads in runoff would still occur. Like the proposed project, these impacts could be reduced to a less than significant level with implementation of mitigation measures identified in this EIR.

This alternative would result in less alteration of the site's topography because it would not be necessary to level out as many athletic fields. However, some alteration would still occur. It is assumed that this alternative would somewhat alter the existing hydrologic patterns by adding impervious surfaces such as the parking areas and would result in increased peak storm water runoff and the potential for scour and erosion in downstream drainages. Similar to the proposed project, mitigation measures identified in this EIR would reduce the increased runoff impacts to a less than significant level. For these reasons, the Reduced Intensity Alternative would result in a similar level of significance regarding water quality and hydrology as the proposed project.

Geology and Paleontology

The Reduced Intensity Alternative would have impacts to geology and paleontology similar to the proposed project. Although there would be less grading and building construction, potentially significant effects associated with building on unstable soils and potential disturbance to previously undiscovered paleontological resources would still occur with construction. Like the proposed project, these impacts could be reduced to a less than significant level through implementation of mitigation measures identified in this EIR. For these reasons, the Reduced Intensity Alternative would be considered similar to the proposed project with respect to geology and paleontology.

Biological Resources

Although less development and construction would occur under the Reduced Intensity Alternative, this alternative would not avoid the project's potential impacts to offsite riparian habitat, nesting raptors, and sensitive riparian bird species from construction activities. Also, development of the project site, even in a less intense manner than the proposed project, would still potentially increase runoff that could impact downstream habitats. Thus, the Reduced Intensity Alternative would be considered similar to the proposed project from a biological resources perspective.

Cultural Resources

No known cultural resources are known to exist at the site. However, it is impossible to be sure about the presence or absence of cultural resources until the ground is disturbed. Although less grading and construction would occur under the Reduced Intensity Alternative, it would not avoid this potential impact. Like the proposed project, this impact would be reduced to a less than significant level through mitigation measures recommended in this EIR. For these reasons, the Reduced Intensity Alternative would be considered similar to the proposed project from a cultural resources perspective.

Public Services and Utilities

Because there would be fewer active uses at the park under the Reduced Intensity Alternative, fewer people would visit the park and thus this alternative would have less demand for utilities and public services than the proposed project. This reduction would not eliminate the need for services and utilities, rather the need would be slightly reduced. However, the proposed project would not result in a significant impact to the provision of public services and utilities. For this reason, the difference in demand for public services and utilities would be considered inconsequential and this alternative would be considered similar to the proposed project.

Agriculture

The Reduced Intensity Alternative would develop the same parcel of land as evaluated under the proposed project. Therefore, similar to the proposed project, the Reduced Intensity Alternative would not convert agricultural land with a significant LESA score to a developed urban use and would not result in impacts to agricultural resources.

Population and Housing

The Reduced Intensity Alternative would be the same as the proposed project with respect to population and housing. The project would still require the two existing onsite tenants to vacate the property and the five residential homes would be demolished. Thus, the Reduced Intensity Alternative would be considered similar to the proposed project in this topical area.

[Global Climate Change](#)

[The Reduced Intensity Alternative would generate less traffic than anticipated for the proposed project. For this reason, the alternative would result in less greenhouse gas emissions related to vehicle](#)

operations. In addition, the alternative would not include an aquatic center and would have less athletic field turf requiring irrigation; therefore, less greenhouse gas emissions related to the provision of water would result as compared to the proposed project.

Project Objectives

The Reduced Density Alternative would not meet ~~most of~~ the basic project objectives ~~to~~ of the same extent as the proposed project. Since a majority of the park site would contain passive recreational uses, this alternative would not wholly meet the intent of Objective 1 by providing a variety of recreational facilities that are predominately active park uses. In addition, the Reduced Intensity Alternative would provide less variety of recreational facilities for different user groups than the proposed project. By not lighting the athletic fields and reducing their number, this alternative would essentially eliminate use of the athletic fields during evening hours and, as specified in Objectives 2 and 5, would not fully maximize the number and use of athletic fields while preserving other desired features of the park, nor would it maximize the use of recreational facilities during park hours. This alternative would not completely serve all park user groups as specified in Project Objective 4. Without lights to facilitate nighttime play on the athletic fields, the number of people who could use the fields and the usable hours of the fields would be substantially limited. The adult user group would not be served by the park as most adult athletic league games are scheduled for evening hours after work and require night lighting. Also, during fall and winter months, the children's after-school user group would also be limited, along with the adult user group, because it gets dark very early and games or practices could not be scheduled into later hours. With less use during the evening hours, weekend use of the park would be expected to increase as user groups would have more need to schedule events during weekend days.

7.3 ANALYSIS OF CITIZENS FOR QUALITY OF LIFE ALTERNATIVE

7.3.1 Citizens for Quality of Life Alternative Description

During the public workshops that were held to gain community input regarding the design of the Hall Property Community Park, a community group, Citizens for Quality of Life, prepared and presented an alternative design for the proposed park. The Citizens for Quality of Life Alternative was included for analysis as a viable park design as presented by an interested community group. This design would be considered in this EIR to consider the environmental effects when compared to the proposed project.

The Citizens for Quality of Life Alternative includes two full-sized soccer fields with softball overlays; an indoor swimming pool; tennis, basketball, and volleyball courts; landscaped areas; pedestrian and

biking trails; gardens; a horticultural/ecological museum; picnic areas; wetlands restoration with permanent pond; tot lots; 4-H activity area; dog park; teahouse; arts and crafts area; theater; and a multi-purpose community center (CQL 2006). This alternative is shown in Figure 7-2. [The inclusion of facilities such as the community center, theater, 4-H activity area, etc., would allow for some special events to occur at the park under this alternative.](#)

7.3.2 Comparison of Citizens for Quality of Life Alternative Effects

Land Use and Public Policy

Like the proposed project, the Citizens for Quality of Life Alternative would not result in any environmental impacts related to land use. Specifically, this alternative would not divide an established community or conflict with a policy or plan adopted for the purpose of environmental protection. Development of parkland is allowed within the site's R3 zoning with a Conditional Use Permit-Major. Because no land use designation or zoning changes would be necessary, and it is assumed that development would occur according to General Plan policies, no conflicts with the City's plans or policies are expected. Similar to the proposed project, this alternative would be compatible with the surrounding development. The Citizens for Quality of Life Alternative would be considered similar to the proposed project from a land use perspective.

Traffic and Circulation

The Citizens for Quality of Life Alternative would include fewer athletic fields and would dedicate increased acreage to open space, which would likely reduce the number of park users and associated traffic trips. Because no lighting is proposed, the athletic fields would not be used after dark. With fewer athletic fields and increased open space, this alternative would result in fewer vehicle trips accessing the project site and thus would reduce the severity of the significant traffic impacts of the project for intersection and segment operations. However, impacts to some of the poorly operating intersections, such as the I-5 on- and off-ramps that currently operate at LOS F, would likely still occur with this alternative. [Because there would be fewer athletic fields, it is likely that special events held at the Citizens for Quality of Life park would not generate as much traffic or parking demand as special events anticipated for the proposed project. It is likely that smaller scale events may occur at park facilities such as the teahouse, theater, arts and crafts area, etc.; however, traffic generation associated with these special events would be less than the proposed project.](#) Similar to the proposed project, potential traffic impacts from this alternative could be mitigated to below a level of significance. Construction traffic may be slightly less as there would be reduced development occurring on the site, though this would not be a substantial difference in traffic volumes as compared to the proposed project.



Figure 7-2
Citizens for Quality of Life Alternative

Air Quality

The proposed Hall Property Community Park project would not result in any significant impacts to air quality beyond the potential for contaminated dust particles during construction operations. Development of the Citizens for Quality of Life Alternative would also require construction activities that would cause a potential impact. Similar to the proposed project, the potential impact could be mitigated to below a level of significance. This alternative would generate less traffic volume; thus, traffic impacts would be less than the proposed project and fewer air emissions from mobile sources would occur. Neither the proposed project nor the Citizens for Quality of Life Alternative would result in significant air quality impacts.

Noise

Because the Citizens for Quality of Life Alternative would not include amplification during special events at the athletic fields, the significant noise impacts attributable to the use of special event amplification would not occur. [It is assumed that the reduced intensity uses under this alternative would not require any amplification and no noise impacts would result. Under this alternative, the dog park would be located in the same general area as the proposed project and the noise impacts from that park feature would be the same.](#) Construction noise impacts are assumed to be similar to the proposed project. The Citizens for Quality of Life Alternative would have fewer noise impacts than the proposed project.

Aesthetics and Lighting

The Citizens for Quality of Life Alternative would not include athletic field lighting. Therefore, this alternative would avoid a significant impact of the proposed project related to light trespass onto adjacent properties from the athletic field lighting. The other visual effects of the project would be similar in this alternative. The Citizens for Quality of Life Alternative would have fewer lighting impacts than the proposed project.

Hazardous Materials

The Citizens for Quality of Life Alternative and the proposed project would have the same potentially significant impacts related to exposure to contaminated soils and ACMs. All of these impacts could be reduced to a less than significant level through implementation of mitigation measures recommended in this EIR. Therefore, the Citizens for Quality of Life Alternative would be considered similar to the proposed project with respect to hazardous materials.

Hydrology and Water Quality

The Citizens for Quality of Life Alternative would have hydrology and water quality impacts similar to the proposed project regarding potential soil and pollution transport in storm water runoff. Although there would be less grading and construction, the significant effects of soil runoff and erosion would still occur with construction. Similarly, although there would be fewer parking places and less impervious cover with more open space areas, the significant effects of pollutant loads in runoff would still occur. Like the proposed project, these impacts could be reduced to a less than significant level with implementation of mitigation measures identified in this EIR.

This alternative would result in less alteration of the site's topography because it would not be necessary to level out as many athletic fields. However, some alteration would still occur. It is assumed that this alternative would somewhat alter the existing hydrologic patterns by adding impervious surfaces such as the parking areas and would result in increased peak storm water runoff and the potential for scour and erosion in downstream drainages. The Citizens for Quality of Life Alternative includes a large pond feature that would serve as a water detention and settlement feature to reduce potential water quality impacts. The proposed project includes dry streambed features to serve a similar purpose, and implementation of mitigation measures identified in this EIR, including a detention basin, would reduce the increased runoff impacts to a less than significant level. For these reasons, the Citizens for Quality of Life Alternative would be considered similar to the proposed project.

Geology and Paleontology

The Citizens for Quality of Life Alternative would have impacts to geology and paleontology similar to the proposed project. Although there would be less grading and building construction, potentially significant effects associated with building on unstable soils and potential disturbance to previously undiscovered paleontological resources would still occur with construction. Like the proposed project, these impacts would be reduced to a less than significant level through implementation of mitigation measures identified in this EIR. For these reasons, the Citizens for Quality of Life Alternative would be considered similar to the proposed project with respect to geology and paleontology.

Biological Resources

Although less development and construction would occur onsite under the Citizens for Quality of Life Alternative, this alternative would not avoid the project's potential impacts to offsite riparian habitat, nesting raptors, and sensitive riparian bird species from construction activities. Also, development of

the project site, even in a less intense manner than the proposed project, would still potentially increase runoff that could impact downstream habitats. Thus, the Citizens for Quality of Life Alternative would be considered similar to the proposed project from a biological resources perspective.

Cultural Resources

No known cultural resources are known to exist at the site. However, it is impossible to be sure of the presence or absence of cultural resources until the ground is disturbed and thus this is identified as a potentially significant impact for the proposed project. Although less grading and construction would occur under the Citizens for Quality of Life Alternative, it would not avoid this potential impact. Like the proposed project, this impact would be reduced to a less than significant level through implementation of mitigation measures recommended in this EIR. For these reasons, the Citizens for Quality of Life Alternative would be considered similar to the proposed project from a cultural resources perspective.

Public Services and Utilities

Because there would be fewer active uses at the park under the Citizens for Quality of Life Alternative, fewer people would visit the park and thus this alternative would have less demand for utilities and public services than the proposed project. This reduction would not eliminate the need for services and utilities, rather the need would be slightly reduced. However, the proposed project would not result in a significant impact to the provision of public services and utilities. For this reason, the difference in demand for public services and utilities would be considered inconsequential and this alternative would be considered similar to the proposed project.

Agriculture

The Citizens for Quality of Life Alternative would develop the same parcel of land as evaluated under the proposed project. Therefore, similar to the proposed project, the Citizens for Quality of Life Alternative would not convert agricultural land with a significant LESA score to a developed urban use and would not result in impacts to agricultural resources.

Population and Housing

The Citizens for Quality of Life Alternative would be the same as the proposed project with respect to population and housing. The project would still require the existing onsite tenants to vacate the

property and the five residential homes would be demolished. Thus, the Citizens for Quality of Life Alternative would be considered similar to the proposed project in this topical area.

Global Climate Change

The Citizens for Quality of Life Alternative would generate less traffic than anticipated for the proposed project. For this reason, the alternative would result in less greenhouse gas emissions related to vehicle operations. In addition, the alternative would not include an aquatic center and would have less athletic field turf requiring irrigation; therefore, less greenhouse gas emissions related to the provision of water would result as compared to the proposed project.

Project Objectives

The Citizens for Quality of Life Alternative would not meet ~~most of~~ the basic project objectives to the same extent as the proposed project. This alternative would not be entirely consistent with Objective 1 since more passive areas would be proposed and the recreational facilities provided by this alternative are not predominately active park uses. In addition, this alternative would not ~~meet~~ completely fulfill Objective 2 since it would not maximize the number and use of athletic fields to help offset the unmet needs of Encinitas while preserving the other desired features of the project site. This alternative would not fully serve all park user groups as specified in Project Objective 4 and it would not meet Objective 5 to the same extent as the proposed project, which calls for maximized use of recreational facilities during park hours. Without lights to facilitate nighttime play on the athletic fields, sporting events and practices could only occur during daytime hours, thus limiting the use of recreational facilities during evening hours while the park would still be open. This would also specifically limit use of the athletic fields by after-school and adult user groups. Most adult sports league games are scheduled for evening hours after work and require night lighting. During fall and winter months, the children's after-school user group would also be limited, along with the adult user group, because it gets dark very early and games or practices could not be scheduled into later hours. With less use during the evening hours, weekend use of the park would be expected to increase as user groups would have more need to schedule events during weekend days. By not lighting the athletic fields, this alternative would substantially limit the usable hours of the athletic fields. Moreover, this alternative has fewer athletic fields than the proposed project and thus would further reduce the ability of the park to serve all members of the community.

7.4 ANALYSIS OF NO ATHLETIC FIELD LIGHTING ALTERNATIVE

7.4.1 No Athletic Field Lighting Alternative Description

For this alternative, there would be no lighting of the athletic fields and no installation of athletic field lighting poles. All other park features and components would be identical to the proposed project. The lighting proposed for areas other than the athletic fields, such as the parking lots, pedestrian walkways, skate park, etc., would be installed for this alternative. The athletic fields would be used in a normal manner during daytime hours; however, no activities beyond daylight would occur. The hours of play into the evening would vary depending on the season (i.e., activities at the athletic fields could extend later into the evening during the summer months when daylight lasts longer). All other components of the proposed park would be implemented in this alternative. The No Athletic Field Lighting Alternative was included for analysis in response to public concern over visual and lighting impacts that could result if athletic field lighting were to be approved for the project.

7.4.2 Comparison of No Athletic Field Lighting Alternative Effects

Land Use and Public Policy

Removal of the athletic field lighting would not alter the analysis of land use impacts conducted for the project. The athletic field lighting in the proposed project would exceed the height limitations in the General Plan and zoning ordinance; however, this policy inconsistency was found to not result in any environmental impacts. Similar to the proposed project, this alternative would be compatible with the surrounding development. The elimination of athletic field lighting would reduce potential light and glare to surrounding neighborhoods and make the park slightly more compatible with the immediate community in that aspect. However, the light and glare impacts with the proposed project would be mitigated to less than significant. Thus, the No Athletic Field Lighting Alternative would be considered similar to the proposed project from a land use perspective.

Traffic and Circulation

Under the No Athletic Field Lighting Alternative, the athletic fields would not be used after dark, and thus this alternative would result in fewer vehicle trips after daylight hours. During the winter, when it gets dark earlier, this could result in fewer vehicle trips to the park during the peak PM hours (4 PM to 6 PM) as no activities at the athletic fields would be taking place. However, during the summer, it is not likely to affect PM peak hour trips as daylight would continue after 6 PM allowing for continued activities past the peak hour. Elimination of the PM peak hour trips associated with the athletic fields in the winter would remove only one portion of the overall trips during the PM peak hour generated by

the park as other activities, such as the teen center, aquatic facility, etc., would continue to operate into the evening. Thus, it is unlikely to substantially reduce the significant traffic impacts of the project. [Special events associated with the athletic fields would likely be smaller than the proposed project as they would be limited to daylight hours. Therefore, the potential traffic and parking impacts related to special events would be reduced as compared to the proposed park.](#) Therefore, while the No Athletic Field Lighting Alternative would result in less traffic-related impacts than the proposed project, the level of significance of this alternative's traffic impacts would be the same as that of the proposed project.

Air Quality

The proposed Hall Property Community Park project would not result in any significant impacts to air quality. Because the No Athletic Field Lighting Alternative would result in fewer traffic impacts than the proposed project, it would likely result in slightly reduced traffic-related pollution. Dust-related impacts would still occur with this alternative, similar to the proposed project, but they could be reduced to less than significant levels with the implementation of standard dust control measures. The No Athletic Field Lighting Alternative and proposed project would be considered similar from an air quality perspective.

Noise

Under the No Athletic Field Lighting Alternative, the fields would not be used after dark; thus, this alternative would result in less noise after daylight hours from the athletic fields. [Amplification of special events at the athletic fields would also occur only during daylight hours and thus would reduce potential noise impacts resulting from amplification as compared to the proposed project.](#) Vehicular traffic and nighttime athletic field noise after dark would also be reduced, though these were not found to be significant noise sources of the proposed project. Although this alternative would create less noise at night from the athletic fields and associated traffic, it would not reduce an identified significant impact of the project. Therefore, while the No Athletic Field Lighting Alternative would generate less noise than the proposed project, the level of significance of this alternative's noise impacts would be the same as that of the proposed project.

Aesthetics and Lighting

The No Athletic Field Lighting Alternative would avoid the project's visual impact from light and glare trespass on adjacent properties from the athletic fields. With the proposed project, lighting associated with the athletic fields would create a new source of substantial light that could cause discomfort for the viewer (discomfort glare) and potential light trespass onto some adjacent properties. The other

visual effects of the project would be the same with this alternative. With no nighttime athletic field lighting, the No Athletic Field Lighting Alternative would have fewer aesthetics and lighting impacts than the proposed project, because it would avoid a significant impact related to light and glare.

Hazardous Materials

Elimination of the athletic field lighting would not alter the analysis of hazardous materials conducted for the proposed project and identical impacts would result with development of this alternative. Thus, the No Athletic Field Lighting Alternative would be considered similar to the proposed project from a hazardous materials perspective.

Hydrology and Water Quality

Elimination of the athletic field lighting would not alter the analysis of hydrology and water quality conducted for the proposed project and identical impacts would result with development of this alternative. Thus, the No Athletic Field Lighting Alternative would be considered similar to the proposed project from a hydrology and water quality perspective.

Geology and Paleontology

Elimination of the athletic field lighting would not alter the analysis of geology and paleontology conducted for the proposed project and identical impacts would result with development of this alternative. Thus, the No Athletic Field Lighting Alternative would be considered similar to the proposed project from a geology and paleontology perspective.

Biological Resources

Elimination of the athletic field lighting would not alter the analysis of biological resources conducted for the proposed project and identical impacts would result with development of this alternative. Thus, the No Athletic Field Lighting Alternative would be considered similar to the proposed project from a biological resources perspective.

Cultural Resources

Elimination of the athletic field lighting would not alter the analysis of cultural resources conducted for the proposed project and identical impacts would result with development of this alternative. Thus,

the No Athletic Field Lighting Alternative would be considered similar to the proposed project from a cultural resources perspective.

Public Services and Utilities

When compared to the proposed project, the No Athletic Field Lighting Alternative would use less electricity than the proposed project. However, the proposed project would not result in a significant impact to the provision of electrical services. All other public services and utilities demands would be the same as the proposed project. Although this alternative would use less electricity, it would not reduce an identified significant impact of the project. For this reason, the No Athletic Field Lighting Alternative would be considered similar to the proposed project with respect to public services and utilities.

Agriculture

The No Athletic Field Lighting Alternative would develop the same parcel of land as evaluated under the proposed project. Therefore, similar to the proposed project, the No Athletic Field Lighting Alternative would not convert agricultural land with a significant LESA score to a developed urban use and would not result in impacts to agricultural resources.

Population and Housing

Removal of the athletic field lighting would not alter the analysis of population and housing conducted for the project. Thus, the No Athletic Field Lighting Alternative would be considered similar to the proposed project from a population and housing perspective.

Global Climate Change

The No Athletic Field Lighting Alternative would generate less traffic than anticipated for the proposed project as outdoor activities would be limited to daylight hours. For this reason, the alternative would result in less greenhouse gas emissions related to vehicle operations. In addition, the alternative would not include athletic field lighting and would not require the energy needed to operate the lights. Therefore, greenhouse gas emissions related to the provision of electricity would be less than the proposed project.

Project Objectives

This alternative would not meet most of the basic project objectives ~~for~~ to the same extent as the proposed project. Since it would not propose athletic field lighting, it would not maximize the use of athletic fields while preserving the other desired features of the park site as intended by Objective 2. In addition, the lack of athletic field lighting would not fully meet Objective 5's intent of maximizing the use of recreational facilities during park hours. Though there would be the same number and size of athletic fields, the time of play on those fields would be limited to daytime hours only. Thus, this alternative would also not ~~meet~~ completely achieve Objective 4, which specifies the project adequately provide recreational facilities for all user groups. This alternative would not adequately serve the adult user group as most adult sports league activities are scheduled in the evening hours after the workday and the children's after-school user group would also be limited because games or practices could not be scheduled into evening hours. For these reasons, the recreational facilities would not be maximized to the full extent and certain user groups would not be adequately served due to limited hours of use.

7.5 ANALYSIS OF NO PROJECT-DEVELOPMENT OF RESIDENTIAL PER ZONING ALTERNATIVE

7.5.1 No Project-Development of Residential per Zoning Alternative Description

Under the No Project-Development of Residential per Zoning Alternative (No Project-Residential Alternative), development would presumably occur on the project site per the current zoning for the site. The current zoning of the site is R3, which allows for residential development of up to 3 dwelling units per acre. Assuming that all 44± acres are suitable for development, this alternative would result in approximately 132 residential units throughout the project site. With only 3 residential units per acre, this alternative would likely develop single-family homes. In addition to the residential units themselves, all necessary infrastructure, such as internal roadways, sewer, water, etc., would be constructed. The No Project-Development of Residential per Zoning Alternative was included for analysis per CEQA requirements as a reasonable alternative development that could occur on the project site under current zoning regulations.

7.5.2 Comparison of No Project-Development of Residential per Zoning Alternative Effects

Land Use and Public Policy

Like the proposed project, the No Project-Residential Alternative would not result in any environmental impacts related to land use. Specifically, this alternative would not divide an established community or conflict with a policy or plan adopted for the purpose of environmental protection. Because no land use designation or zoning changes would be necessary, and it is assumed that development would occur according to General Plan policies, no conflicts with the City's plans or policies are expected. The development of residential homes on this site would be compatible with the surrounding development as there are residential developments immediately south and west of the project site and east of I-5. Though a different land use, the proposed project was found to be compatible with the surrounding communities as well. The No Project-Residential Alternative would be considered similar to the proposed project from a land use perspective.

Traffic and Circulation

The No Project-Residential Alternative would result in the construction of a maximum 132 single-family homes on the project site. The expected ADT generation for these residential units would be 1,320 trips per day.²³ The proposed Hall Property Community Park would result in 2,620 trips per day. Thus the No Project-Residential Alternative would result in approximately half the trips per day of the proposed project and would likely have fewer significant traffic impacts from operation of the park. Though the proposed project could result in twice the daily trips, the operational traffic impacts would be mitigated to below a level of significance. [No special event traffic as anticipated for the proposed project would occur with this alternative.](#)

The No Project-Residential Alternative could result in a similar or greater amount of soil export from the site as the proposed project due to the need to grade flat residential grading pads. Given the potential extent of construction activities under this alternative, construction-period traffic would likely be greater than the proposed project. However, because operation of the No Project-Residential Alternative would generate only half of the trips that would result from the proposed park, this alternative would be considered to have fewer traffic impacts than the proposed project.

²³ The average daily trip generation rate for single-family residential units at 3 to 6 units per acre is 10 trips per day (SANDAG 2002). $132 \text{ units} \times 10 = 1,320 \text{ trips per day}$. During the AM peak period 8% would occur, and during the PM peak period 10% would occur. Of the AM peak volume, there would be a driveway split of 70% out and 30% in, and reversed 30% out/70% in during the PM peak hour (SANDAG 2002).

Air Quality

The No Project-Residential Alternative would result in lower traffic volumes than the proposed project; however, a park has shorter trips associated with its use than a residence does, e.g., a person may drive 10 to 15 miles for work but typically drives less than 6 miles to visit a park (SANDAG 2002). The No Project-Residential Alternative may also result in a greater amount of grading in order to construct flat building pads for up to 132 units. However, this would not be considered a substantial difference in construction-related air quality impacts. After completion of the project, a residence includes a number of area sources not associated with a park, including water heaters and fireplaces. Another large contributor to air emissions from residential land uses is consumer products, such as solvents, cleaners, and aerosol sprays, which generate substantial amounts of VOCs—a primary pollutant involved in the creation of O₃. The emissions associated with the operation of a residential development would exceed the emissions associated with the proposed project. For this reason, the No Project-Residential Alternative would be considered to have greater impacts than the proposed project from an air quality perspective, including increased greenhouse gas emissions.

Noise

Because the No Project-Residential Alternative would not include a dog park, amphitheatre, or athletic fields, the significant noise impacts attributable to these uses would not occur. [Also, no noise associated with amplification of special events would occur.](#) Noise generated from residential homes is likely to be less than what is expected from the more active facilities proposed for the Hall Property Community Park. However, because substantially more buildings, roadways, and infrastructure would be built as part of the No Project-Residential Alternative, it is likely this alternative would result in greater impacts from temporary construction-related noise. With these considerations, though the No Project-Residential Alternative would potentially create increased noise during construction, the alternative would avoid the ongoing significant noise impact generated by features of the proposed park. Therefore, the No Project-Residential Alternative would be considered to have fewer noise impacts than the proposed project.

Aesthetics and Lighting

The No Project-Residential Alternative would likely avoid the project's visual impact from light and glare trespass on adjacent properties. Lighting associated with residential development is typically confined to the project site and would not be greater than lighting anticipated for athletic fields in the proposed project. The No Project-Residential Alternative would not benefit from the improved landscaping and visual openness on the site that would occur with development of the proposed park. However, the visual context of the residential development would be consistent with the surrounding

area and thus it would not result in a significant visual impact. The No Project-Residential Alternative would have fewer aesthetics and lighting impacts than the proposed project because it would avoid a significant impact related to light and glare.

Hazardous Materials

The No Project-Residential Alternative would include demolition of some or all of the existing buildings onsite, grading and soil disturbance, and the construction and use of residential homes. Thus, it would result in the same potentially significant impacts related to exposure to contaminated soils, ACMs, and the increased use of hazardous materials as identified for the proposed project. Like the proposed project, all of these impacts could be reduced to a less than significant level through implementation of mitigation measures identified in this EIR. For these reasons, the No Project-Residential Alternative would be considered similar to the proposed project with regard to hazardous materials impacts.

Hydrology and Water Quality

Like the proposed project, construction and development of the site under the No Project-Residential Alternative would result in significant impacts with regard to the potential increase in soil and pollution transport in storm water runoff and potential for scour and erosion in downstream drainages from increased flow volumes. However, the impacts would likely be more severe under the No Project-Residential Alternative because of the greater amount of grading and construction that would occur. In addition, the impervious cover on the site would be substantially greater, which would lead to increases in peak runoff volumes and pollutant loads. For this reason, the No Project-Residential Alternative would be considered to have greater impacts than the proposed project from a hydrology and water quality perspective.

Geology and Paleontology

Like the proposed project, construction and development of the site under the No Project-Residential Alternative would result in significant geology-related impacts with regard to construction and building on unstable soils. These geology-related impacts would likely be greater under the No Project-Residential Alternative because of the greater number of occupied buildings to be constructed. This alternative would also have the potential to disturb previously undiscovered paleontological resources. Like the proposed project, these impacts could be reduced to a less than significant level through the implementation of mitigation measures.

Biological Resources

Because no sensitive species or habitat occurs on the project site, the development anticipated with the No Project-Residential Alternative would not result in the direct destruction or removal of sensitive habitat. However, like the proposed project, this alternative would have potential impacts to offsite riparian habitat, nesting raptors, and sensitive riparian bird species from construction activities. The alternative would also create a higher volume of runoff due to the increased amount of impervious surface, which could impact downstream habitats. Because of the greater amount of construction and building anticipated throughout the site, the impacts would likely be more severe under this alternative. Thus, the No Project-Residential Alternative would be considered to have greater impacts than the proposed project from a biological resources perspective.

Cultural Resources

No known cultural resources are known to exist at the site. However, it is impossible to be sure about the presence or absence of cultural resources until the ground is disturbed; thus, this potentially significant impact identified for the proposed project would also be applicable to the No Project-Residential Alternative. As with the proposed project, this impact could be reduced to a less than significant level through mitigation measures recommended in this EIR. For this reason, the No Project-Residential Alternative would be considered similar to the proposed project from a cultural resources perspective.

Public Services and Utilities

When compared to the proposed project, the No Project-Residential Alternative would require more in public services and utilities. This alternative would result in an increase in the number of calls for service over current conditions for fire protection, medical emergency, and police services due to the increase in population. The proposed project would also result in increased calls by providing a place where people gather. Thus, the No Project-Residential Alternative and the proposed project would likely have similar impacts to fire and medical and police services. However, the No Project-Residential Alternative would create a greater demand for schools than the proposed project. This alternative would also create an increased demand for parks, while the proposed project would contribute substantially to the supply of recreational areas in Encinitas.

Residential development would demand more in electricity and solid waste disposal than the proposed park. Because of the greater number of people and associated toilets, showers, etc., the expected wastewater demand would also be greater under this alternative. The residential development would result in increased peak storm water flows from the greater amount of impervious cover and thus

could require expansion of the storm drain system. For these reasons, the No Project-Residential Alternative would be considered to have greater impacts than the proposed project from a public services and utilities perspective.

Agriculture

The No Project-Residential Alternative would develop the same parcel of land as evaluated under the proposed project. Therefore, similar to the proposed project, the No Project-Residential Alternative would not convert agricultural land with a significant LESA score to a developed urban use and would not result in impacts to agricultural resources.

Population and Housing

The No Project-Residential Alternative would not result in increased population growth in Encinitas. Because the alternative would not change the zoning designation on the site, the expected population growth would be included in growth projections for Encinitas and thus would not result in a significant impact. The five residences currently on the site could feasibly remain in place under the No Project-No Build Alternative, or if demolished, the households could be absorbed into the new residential development. With these considerations, the No Project-Residential Alternative would be considered similar to the proposed project with regard to population and housing.

[Global Climate Change](#)

[The No Project-Residential Alternative would generate less traffic than anticipated for the proposed project and reduce potential traffic impacts. However, the vehicle trips associated with a residential development are typically much more distant than those associated with a park. For this reason, it is assumed that this alternative would result in similar greenhouse gas emissions related to vehicle operations. However, the operational energy demand of a residential development would be higher than that of the proposed park. Therefore, greenhouse gas emissions related to the provision of electricity would be greater than the proposed project.](#)

Project Objectives

This alternative would not meet the objective of providing a community park and meeting the need for athletic fields in Encinitas. The No Project-Residential Alternative would place residential homes throughout the site. It is possible that the residential development would include small recreation areas, such as tot lots, but these small areas would not serve the community park needs as a whole.

7.6 ANALYSIS OF NO PROJECT-NO BUILD ALTERNATIVE

7.6.1 No Project-No Build Alternative Description

Under this alternative, no development would occur on the project site. The project site would remain in its current conditions with no improvements or modifications. The City would continue to own the project site. The structures that are currently on the project site would remain in place. The two residential houses on the project site that are currently leased by the City would remain occupied by tenants. Vegetation from past hydroseeding would continue to grow across the site. No Project-No Build Alternative was included for analysis per CEQA requirements as a assessment of impacts that would result from leaving the site in its current condition with no change or development as compared to the proposed project.

7.6.2 Comparison of No Project-No Build Alternative Effects

Land Use and Public Policy

Like the proposed project, the No Project-No Build Alternative would not result in any environmental impacts related to land use. Specifically, this alternative would not divide an established community or conflict with a policy or plan adopted for the purpose of environmental protection. No land use changes would occur compared with current conditions and no land use designation or zoning changes would be necessary. No land use compatibility conflicts would result with this alternative. The No Project-No Build Alternative would be considered similar to the proposed project from a land use perspective.

Traffic and Circulation

The No Project-No Build Alternative would not result in any new development on the project site and no additional vehicular trips are anticipated. [No special event traffic as anticipated for the proposed project would occur with this alternative.](#) Thus, no significant traffic impacts would occur. This alternative would result in no construction truck traffic impacts to the local roadway system. The No Project-No Build Alternative would have fewer traffic impacts than the proposed project.

Air Quality

Like the proposed project, the No Project-No Build Alternative would not result in any significant impacts to air quality. No new development would occur and no additional vehicle trips are

anticipated under the No Project-No Build Alternative; thus, no air quality impacts would occur from the generation of traffic. In addition, with no development, the project would not result in any construction emissions in the form of either equipment emissions or dust. For these reasons, the No Project-No Build Alternative would generate less air quality emissions than the proposed project, though the proposed project would not result in a significant air quality impact.

Noise

Because the No Project-No Build Alternative would not include a dog park, amphitheatre, or athletic fields, the significant impacts attributable to these would not occur. [Also, no noise associated with amplification of special events would occur.](#) However, the proposed project would mitigate the potential noise effects to a less than significant level. In addition, this alternative would not result in any demolition, construction, or other changes to the existing physical conditions of the project site. As such, no construction-related noise impacts would occur. The No Project-No Build Alternative would have fewer noise impacts than the proposed project.

Aesthetics and Lighting

The No Project-No Build Alternative would avoid the project's visual impact from light and glare trespass on adjacent properties from the athletic field lighting. However, it would not benefit from the improved landscaping and visual consistency on the site that would occur with development of the proposed park. The site would remain in an unmaintained state with dilapidated structures throughout. The project's potential lighting impacts would be reduced to a less than significant level with implementation of mitigation measures identified in this EIR. Because the unattractive nature of the site would not change and there would be no visual improvement of the project site, the No Project-No Build Alternative would be considered to have greater visual impacts.

Hazardous Materials

The No Project-No Build Alternative would not result in any demolition, construction, or other changes to the existing physical conditions of the project site. As such, no hazardous materials would be released due to construction activities. However, the proposed project provides measures that would remediate all potential hazardous material impacts. If no project were constructed on the site, the potential existing contamination would remain onsite and no cleanup measures would occur. With these considerations, the No Project-No Build Alternative would be considered similar to the proposed project from a hazardous materials perspective.

Hydrology and Water Quality

The No Project-No Build Alternative would avoid the hydrology and water quality impacts identified for the proposed project, including the potential increase in soil and pollution transport in storm water runoff and potential for scour and erosion in downstream drainages from increased flow volumes. Because the No Project-No Build Alternative would not result in any physical alterations of the site, it would not alter the existing hydrologic patterns on the site. The No Project-No Build Alternative would be considered to have fewer hydrology and water quality impacts than the proposed project. However, the proposed project's impacts would be reduced to a less than significant level with implementation of mitigation measures recommended in this EIR; thus, the difference between this alternative and the proposed project would not be substantial.

Geology and Paleontology

The No Project-No Build Alternative would not result in any demolition, construction, or other changes to the existing physical conditions of the project site. As such, no geology-related effects would occur with this alternative. The proposed project would have potentially significant effects associated with building on unstable soils but this impact would be reduced to a less than significant level through implementation of mitigation measures identified in this EIR. The proposed project also has the potential to disturb previously undiscovered paleontological resources, but with implementation of mitigation measures, this impact would also be reduced to a less than significant level. Because there is less chance that impacts to unknown cultural resources could occur, the No Project-No Build Alternative would be considered to have fewer impacts than the proposed project from a geology and paleontology perspective. However, this difference is not considered substantial because this impact could be addressed through mitigation measures recommended in this EIR.

Biological Resources

Because no new development or construction would occur under the No Project-No Build Alternative, this alternative would avoid the project's potential impacts to offsite riparian habitat, nesting raptors, and sensitive riparian bird species from construction activities. Thus, the No Project-No Build Alternative would have fewer impacts to biological resources than the proposed project. However, this difference is not considered substantial because the project's impacts to biological resources could be reduced to a less than significant level through mitigation measures recommended in this EIR.

Cultural Resources

Because no new development or construction would occur under the No Project-No Build Alternative, no impacts to cultural resources would occur. No known cultural resources are known to exist at the site. Because the presence of cultural resources is not expected and mitigation for the proposed project would be implemented if resources were discovered, the No Project-No Build Alternative would be considered similar to the proposed project in regard to cultural resources.

Public Services and Utilities

When compared to the proposed project, the No Project-No Build Alternative would require fewer public services because there would be fewer people and facilities to serve. However, there are no environmental impacts associated with the provision of public services to the proposed project. For this reason, though there would be less demand with the No Project-No Build Alternative in regard to utilities and public services, this difference would be considered slight.

Agriculture

The No Project-No Build Alternative would not result in any new development on the property. Thus, it would not result in the conversion of Farmland of Statewide Importance to other uses. Although agricultural production is not proposed for the site under the No Project-No Build Alternative, this alternative would not preclude the property from being used for agricultural production again in the future. This Alternative would be considered to have fewer impacts to agriculture than the proposed project.

Population and Housing

Like the proposed project, the No Project-No Build Alternative would not result in population growth in Encinitas or the region. The two households currently living on the site could remain under the No Project-No Build Alternative. Although the proposed project would result in the displacement of these five households, they would be absorbed into the current 4 percent vacancy rate within the city. Neither the proposed project nor the No Project-No Build Alternative would create the need for new or additional housing to be constructed. For these reasons, the population and housing difference between the proposed project and the No Project-No Build Alternative would be considered similar and inconsequential.

Global Climate Change

The No Project–No Build Alternative would generate less traffic than anticipated for the proposed project. For this reason, the alternative would result in less greenhouse gas emissions related to vehicle operations. In addition, the alternative would not include any new facilities necessitating energy or water consumption; therefore, less greenhouse gas emissions related to the provision of water and energy would result as compared to the proposed project.

Project Objectives

The No Project-No Build Alternative would not develop a park on the project site and therefore, would not meet the project objectives. The site would remain in its current condition and no park facilities would be provided for the community. This alternative would not meet the project objectives.

7.7 ANALYSIS OF OFFSITE LOCATION-STRAWBERRY FIELDS ALTERNATIVE

7.7.1 Offsite Location-Strawberry Fields Alternative Description

This alternative would be the development of a community park at a location other than the proposed project site. Various park sites have been considered by the City in the past, including the City of Encinitas Sports Complex on Manchester Avenue near El Camino Real, which was not approved. Because Encinitas is a very developed city, there are limited parcels of land of adequate size available for a community park. Once such site is the land known as the strawberry fields located off of Manchester Avenue, just west of I-5. San Elijo Lagoon is directly across Manchester Avenue to the south. The area is approximately 25 acres and is currently used for agriculture. Because the amount of land available would be less than the proposed project, there would be fewer park features that could be provided in this community park. It is assumed that the park would include a reduced number of multi-use turf fields and a variety of other features similar to the proposed project, though at a reduced level, such as a teen center, aquatic facility, skate park, trails, and pathways, etc. The City does not currently own or control this property. Identification of an offsite alternative was included for analysis in order to determine if another location is available that would avoid potential impacts due to the residential communities adjacent to the Hall property.

If the Strawberry Fields Alternative was selected, the Hall property would not be developed with the park as proposed. If the park were to be developed at another location, it is likely that the project site would be sold for residential development per the current zoning of the site. For this reason, the analysis of the Strawberry Fields Alternative includes the impacts associated with the expected use of the Hall Property for residential development if the site were not developed as proposed. For this

[analysis, the potential residential development on the Hall property is considered to be similar to that described in the No Project-Development of Residential per Zoning Alternative and the evaluation of that alternative is referenced for impact analysis.](#)

7.7.2 Comparison of Offsite Location-Strawberry Fields Alternative

Land Use and Public Policy

Similar to the proposed project, the Offsite Location-Strawberry Fields Alternative site is designed in the Land Use Element of the General Plan for residential development and could therefore be developed as a park with a Conditional Use Permit-Major. However, this alternative site is not designated for park use in the Recreational Element as the proposed project site is. The alternative site would also be within the I-5 scenic corridor as is the proposed project. This location is considered less compatible with surrounding land uses, including the sensitive lagoon directly south of the site as well as the downwind location from I-5. The overall land use and public policy impacts would be considered to have potentially greater impacts than the proposed project in regard to land use and public policy.

[Development of residential homes on the Hall property would not require a land use designation or zoning change and it is assumed that development would occur according to General Plan policies; therefore, no conflicts with the City's plans or policies are expected. The development of residential homes on this site would be compatible with the surrounding development as there are residential developments immediately south and west of the project site and east of I-5. The residential development that would likely occur on the proposed project site if the park were to be constructed at the Strawberry Fields site would be considered similar to the proposed project from a land use perspective.](#)

Traffic and Circulation

The Offsite Location-Strawberry Fields Alternative would generate less traffic than the proposed project because the site is smaller and would not accommodate as many park facilities. Traffic impacts in the local area of the proposed project would be avoided with this alternative; however, the alternative park site would be accessed via Manchester Avenue and adjacent to the off-ramps from I-5. This is a congested area and traffic impacts already exist in this location. The addition of a community park and the traffic generated by that use, [including increased traffic during special events](#), would potentially result in traffic impacts to Manchester Avenue and the on- and off-ramps to I-5. For this reason the Offsite Location-Strawberry Fields Alternative would be considered similar to the proposed project.

As detailed for the No Project-Development of Residential per Zoning Alternative, development of residential homes on the Hall property per current zoning would result in approximately half the trips per day of the proposed project and would likely have fewer significant traffic impacts than operation of the park.

Air Quality

The alternative would be located to the east of I-5, which is downwind of the freeway. As described in Section 3.3, locations immediately downwind of a freeway have a potential for higher concentrations of PM_{2.5} and DPM, which could result in a significant air quality impact to users of the park. In addition, a large amount of grading would be required as the site has steep topography rising from the south to the north. This large amount of grading would result in potential dust impacts. Because the alternative site would be located downwind of I-5 and the large amounts of grading would be required to level the site, this alternative would be considered to have the potential for greater air quality impacts as compared to the proposed project.

As detailed for the No Project-Development of Residential per Zoning Alternative, the emissions associated with the operation of a residential development would exceed the emissions associated with the proposed project (due to factors such as longer vehicle trips associated with residential uses, operation of water heaters and fireplaces, use of solvents, cleaners, and aerosol sprays). For this reason, the development of residential units would be considered to have greater impacts than the development of the proposed park on the Hall property from an air quality perspective.

Noise

The existing noise setting for this alternative would be fairly similar to the proposed project as it is almost adjacent to I-5. The nearest residential receptors would be located approximately 240 feet to the north of the strawberry fields location; however, these residential areas are uphill and do not sit at the same elevation of the alternative location, which would reduce potential noise impacts. Another noise consideration at this location would be the sensitive noise wildlife noise receptors in the lagoon area to the south. Unlike the proposed project, the amplification associated with special events would likely not result in significant noise impacts at this location due to distance to sensitive receptors. It is anticipated that due to freeway noise, noise generated by a community park at this location would not impact uphill residential receptors or create noise levels that would impact wildlife receptors in the lagoon and would have fewer noise impacts than the proposed project.

Because residential development on the Hall property would not include the significant noise impacts attributable to the park, noise generated from residential homes is likely to be less than what is

expected from the more active facilities proposed for the park. Substantially more buildings, roadways, and infrastructure would be built as part of the residential development and likely result in greater impacts from temporary construction-related noise. However, the construction noise would be temporary and development of residential homes on the project site would be considered to have fewer noise impacts than the proposed project.

Aesthetics and Lighting

Development of a park project at this location would alter the existing open agricultural fields to a landscaped community park. It is assumed that lighting would be provided at this park to maximize the use of the athletic fields. However, the nearest residential areas would be located uphill and likely would not be impacted by the lights as compared to the proposed project where neighbors are directly adjacent to the site and at the same elevation. The look of a park at this location would be fairly similar to the visual change that would occur at the proposed project site. However, because the Offsite Location-Strawberry Fields Alternative would avoid the potential light and glare impacts that would result from the proposed project, this alternative would be considered to have fewer aesthetic and lighting impacts.

Residential development on the Hall property would likely avoid the project's visual impact from light and glare trespass on adjacent properties. Lighting associated with residential development is typically confined to the project site and would not be greater than lighting anticipated for athletic fields in the proposed project. The visual context of a residential development would be consistent with the surrounding area and thus it would not result in a significant visual impact. Residential development on the Hall property would have fewer aesthetics and lighting impacts than the proposed park because it would avoid a significant impact related to light and glare.

Hazardous Materials

The offsite alternative is similar to the proposed project in that agricultural uses have taken place on the project site. There is a high likelihood that chemicals, such as pesticides and fertilizers, have been used and stored on the alternative site. For this reason, the development of the Offsite Location-Strawberry Fields Alternative would be expected to result in similar hazardous materials impacts when compared to development of the project site.

Construction and use of residential homes on the Hall property would include demolition of the existing buildings onsite, grading, and soil disturbance. Thus, it would result in similar potential impacts related to exposure to contaminated soils, ACMs, and the increased use of hazardous materials as identified for the proposed project.

Hydrology and Water Quality

The Offsite Location-Strawberry Fields Alternative is located adjacent to San Elijo Lagoon. This is an environmentally sensitive waterbody. The alternative site currently has steep grades that would require earthwork to flatten them for park use and the drainage patterns would be altered. The development of a park at this location would add new impervious surfaces that would generate increased volumes of runoff. Due to these changes in hydrology and the nearby lagoon that could be impacted by potential contaminants in park runoff, the Offsite Location-Strawberry Fields Alternative would be considered to have greater hydrology and water quality impacts than the proposed project.

Potential water quality impacts would likely be more severe with residential development because of the greater amount of grading and construction that would occur and the substantially greater amount of impervious groundcover than associated with the proposed park. Therefore, residential development on the Hall property would be considered to have greater impacts than the proposed project from a hydrology and water quality perspective.

Geology and Paleontology

The Offsite Location-Strawberry Fields Alternative site is located on a hillside and would require extensive grading to provide level surfaces for structures and athletic fields. Compared to the proposed project, the amount of grading required would be much greater. Grading into the hillside would increase potential for landslides or other geological hazards. For these reasons, the Offsite Location-Strawberry Fields Alternative would be considered to have greater potential geologic impacts than the proposed project.

Similar to the proposed project, construction and development of residential units would result in geology-related impacts with regard to construction and building on unstable soils. These geology-related impacts would likely be greater because of the increased number of occupied buildings to be constructed. This alternative would also have the potential to disturb previously undiscovered paleontological resources.

Biological Resources

This offsite project alternative would potentially have greater biological impacts than the proposed project. Though the strawberry fields are entirely disturbed due to the ongoing agricultural operations, San Elijo Lagoon is located immediately south of the project area and impacts to this sensitive habitat area and the sensitive bird species associated with the lagoon could result. In addition, there are vegetated canyon areas to the north of the strawberry fields that could support sensitive wildlife

species. Due to the nearby sensitive biological areas, this alternative would be considered to have greater biological impacts than the proposed project.

Similar to the proposed park, development of residential homes on the project site would not result in the direct destruction or removal of sensitive habitat. However, residential development would create a higher volume of runoff due to the increased amount of impervious surface, which could impact downstream habitats. Thus, residential development on the project site would be considered to have greater impacts than the proposed project from a biological resources perspective.

Cultural Resources

This offsite alternative is currently in agricultural production and the crops are planted directly into the soil, requiring ground-disturbing agricultural activities. It is unlikely that any unknown cultural resources that existed within the plow depth would continue to be intact after tilling, discing, and other ground disturbance. However, cultural resources buried below the plow depth could potentially exist at this alternative site, similar to the proposed project. For this reason, development of a community park at this alternative offsite location would be considered similar to the proposed project in regard to cultural resources.

The potentially significant impact identified for the proposed project related to unknown cultural resources on the Hall property would also be applicable to the development of residential homes. For this reason, residential development on the project site would be considered similar to the proposed project from a cultural resources perspective.

Public Services and Utilities

Development of a community park at the offsite strawberry fields location would result in the need for utilities and public services similar to the proposed project. Utilities currently exist in the area due to the water needs of the current agriculture and the nearby gas station. The need for these services may be slightly less than the proposed project because the park would be smaller and would offer fewer amenities, but this difference is minimal and this alternative would be considered similar to the proposed project in regard to the need for public services and utilities.

However, as detailed for the No Project-Development of Residential per Zoning Alternative, when compared to the proposed park, residential development on the project site would require result in an increase in the number of calls for emergency services over current conditions and also increase school demand due to the increase in population. Residential development would demand more in electricity, and wastewater, and solid waste disposal than the proposed park. For these reasons,

[residential development would be considered to have greater impacts than the proposed project from a public services and utilities perspective.](#)

Agriculture

This offsite alternative is mapped as Prime Farmland on the San Diego Farmland of Importance Map (California Department of Conservation 2002). This alternative location is currently in agricultural production and the development of a community park would eliminate that use of the site. Because the land is designated as Prime Farmland and is currently in agricultural use, the agricultural impact of development of a community park at this location would be considered greater than the proposed project.

[Similar to the proposed project, residential development on the Hall property would not convert agricultural land with a significant LESA score to a developed urban use and would not result in impacts to agricultural resources.](#)

Population and Housing

This offsite alternative would not require the demolition of any residential structures. There are nearby residential areas developed to the north and on the east side of I-5. Development of a park in this alternative location would not be expected to generate population growth as there is limited land for development in the area, due to I-5 and the lagoon surrounding the alternative site. This park would serve the needs of the existing population of Encinitas, rather than create additional growth. For this reason, the Offsite Location-Strawberry Fields Alternative would be similar to the proposed project in regard to population and housing.

[Because there would not be a change the zoning designation on the site for residential development, the expected population growth would be included in growth projections for Encinitas and thus would not result in a significant impact. Development of the project site with residential uses would be considered similar to the proposed project with regard to population and housing.](#)

Global Climate Change

[The Offsite Location-Strawberry Fields Alternative would generate less traffic than anticipated for the proposed project as the offsite location would be smaller. For this reason, the alternative would result in less greenhouse gas emissions related to vehicle operations. Because the offsite location would be smaller, fewer facilities would be provided, including less athletic fields and smaller structures, such as the teen center and aquatic facility. With these reduced facilities, the alternative would require less](#)

[irrigation and energy demand and generate less greenhouse gas emissions related to the provision of water and energy would result as compared to the proposed project.](#)

Project Objectives

The development of a park at this alternative location would generally meet the objectives of the project, but to a substantial lesser degree than the park as proposed. Due to the smaller acreage available at the location of this offsite alternative, there would be reduced recreational facilities as compared with the proposed project. The reduced amount of recreational facilities available would reduce the ability of this alternative to meet Objective 1 (provide a variety of recreational facilities that are predominately active park uses), Objective 2 (maximize the number and use of athletic fields to help offset the unmet needs of Encinitas while preserving the other desired features of the park site), and Objective 4 (provide adequate recreational facilities for all user groups).

7.8 SUMMARY OF ALTERNATIVES EVALUATION

Table 7-2 summarizes the findings from the alternatives evaluation. The analysis of the Through Access on Mackinnon Avenue Alternative has been considered at an equal level of detail in the Traffic Impact Analysis contained in Appendix B. All other alternative analyses are qualitative rather than quantitative. Where alternatives are evaluated at a qualitative level, additional environmental review would be required to quantify the anticipated impacts and to recommend appropriate mitigation measures consistent with the level of impact prior to approval of these alternatives by the City.

CEQA requires that an EIR identify the environmentally superior alternative from among the alternatives and the proposed project. The environmentally superior alternative causes the fewest or least significant environmental impacts [as compared to the proposed project.](#) ~~while achieving most of the objectives of the project.~~

Based on the comparison of the proposed project and the potential alternatives, the No Project-No Build Alternative would result in the fewest environmental impacts. However, ~~this alternative would not meet the objectives of the project in that there would be no development of a park to serve the Encinitas community.~~ CEQA §15126.6(e)(2) requires that “If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” To comply with that requirement, the following discussion of the other alternatives is provided.

Table 7-2. Comparison of Project Alternatives Impacts to Proposed Project Impacts¹

Issue Area	Project Alternatives						
	Through Access on Mackinnon Avenue	Reduced Intensity	Citizens for Quality of Life	No Athletic Field Lighting	No Project-Residential	No Project-No Build	Offsite: Strawberry Fields
Land Use and Public Policy	Similar	Similar	Similar	Similar	Similar	Similar	Greater
Traffic and Circulation	Fewer	Fewer	Fewer	Fewer Similar	Fewer	Fewer	Similar
Air Quality	Similar Fewer	Fewer Similar	Fewer Similar	Similar	Greater	Fewer	Greater
Noise	Similar	Fewer	Fewer	Fewer Similar	Fewer	Fewer	Fewer
Aesthetics and Lighting	Similar	Fewer	Fewer	Fewer	Fewer	Greater	Fewer
Hazardous Materials	Similar	Similar	Similar	Similar	Similar	Similar	Similar
Hydrology and Water Quality	Similar	Similar	Similar	Similar	Greater	Fewer	Greater
Geology and Paleontology	Similar	Similar	Similar	Similar	Greater	Fewer	Greater
Biological Resources	Similar	Similar	Similar	Similar	Greater	Fewer	Greater
Cultural Resources	Similar	Similar	Similar	Similar	Similar	Similar	Similar
Public Services and Utilities	Similar	Similar	Similar	Similar	Greater	Fewer	Similar Greater
Agriculture	Similar	Similar	Similar	Similar	Similar	Fewer	Greater
Population and Housing	Similar	Similar	Similar	Similar	Similar	Similar	Similar

¹ **Greater** = Alternative results in greater impacts than the proposed project

Fewer = Alternative results in fewer impacts than the proposed project

Similar = Alternative results in impacts similar to the proposed project

The Reduced Intensity Alternative and the Citizens for Quality of Life Alternative would both reduce the potential environmental impacts of the proposed project in a similar manner. As shown in Table 7-2, both alternatives would reduce the potential traffic impacts, air quality impacts, noise impacts, and aesthetic impacts that may result from the proposed project. Neither of these alternatives would create any greater impacts than the proposed project. [Because the Reduced Intensity Alternative and the Citizens for Quality of Life Alternative equally reduce the most potential environmental impacts without causing any additional impacts as compared to the proposed project, both are considered to be the environmentally superior alternative.](#)

However, as described in the analysis of each alternative, these two alternatives would not achieve project Objectives 2, 4, and 5 [to the same extent as the proposed project](#). Due to the reduced intensity and limited facilities, these alternatives would not fully maximize use of the recreational facilities during park hours, would not adequately serve all park user groups, and would not contribute to the same levels as the proposed project in meeting the existing need for athletic fields in Encinitas. ~~The environmentally superior alternative causes the least significant environmental effects while achieving most of the objectives of the project; because these alternatives would not meet three of the five project objectives, neither alternative would be considered environmentally superior.~~

Similarly, the No Athletic Field Lighting Alternative would reduce potential visual and lighting impacts; however, other alternatives would reduce more potential environmental impacts. ~~it would not meet Objectives 4 and 5 due to reduced hours of recreational field use and resulting limitations on certain park user groups.~~ For this reason, the No Athletic Field Lighting Alternative is not considered the environmentally superior alternative.

The Offsite Strawberry Fields Alternative would reduce some potential impacts compared to the proposed project; however, it would cause greater environmental impacts in multiple issue areas and, thus, is not considered the environmentally superior alternative.

The Through Access on Mackinnon Avenue Alternative would avoid some of the potentially significant traffic impacts that could result with the proposed project and would not cause any greater environmental impacts. This alternative would also meet all of the project objectives. ~~For these reasons;~~ However, as described above, other alternatives would reduce more environmental impacts than this alternative, and thus the Through Access on Mackinnon Avenue Alternative would not be considered the environmentally superior alternative.

This page intentionally left blank.

CHAPTER 8

REFERENCES

[Brick, Bill. Senior Meteorologist, San Diego Air Pollution Control District
2008 Personal communication via email with Jim Kurtz, EDAW, Inc. concerning
meteorological data from Del Mar monitoring station. July 28.](#)

California Air Resources Board (CARB)

- 2001 Risk Management Guidelines for New, Modified, and Existing Sources of Lead, March.
- 2004 The East Bay Children's Health Study; Traffic-Related Air Pollution Near Busy Roads. December 9.
- 2005a California's Toxic Air Program, available at <http://www.arb.ca.gov/toxics/toxics.htm>.
- 2005b <http://www.arb.ca.gov/toxics/ets/ets.htm>.
- 2005c Ambient Air Quality Standards, Air Quality Monitoring Data, and Forecast Regional Emissions. Available at <http://www.arb.ca.gov/aqd/aqd.htm>, accessed February 11.
- 2005d Air Quality and Land Use Handbook: A Community Health Perspective. April.
- 2007 The California Almanac of Emissions and Air Quality, 2007 Edition. Available at <http://www.arb.ca.gov/aqd/almanac/almanac07/almanac07.htm>.
- 2008 California Ambient Air Quality Standards (CAAQS). February 21. Available at <http://www.arb.ca.gov/aqs/aaqs2.pdf>.

California Department of Conservation

- 1997a Fault-Rupture Hazard Zones in California. Special Publication 42. Supplements added in 1999.
- 1997b California Agricultural Land Evaluation and Site Assessment Instruction Manual.
- 2002 San Diego Important Farmland 2000. Map published September 2002.

2004 Division of Land Resource Protection, Williamson Act Lands 2004 Map.

California Department of Transportation (Caltrans)

2002 Transportation Related Earthborne Vibrations, Technical Advisory, Vibration TAV-02-01-R9601. February 20.

2006 <http://www.dot.ca.gov/dist11/>.

California Energy Commission (CEC)

2006 Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004. (Staff Final Report). Publication CEC-600-2006-013-SF. December. Available at http://www.climatechange.ca.gov/policies/greenhouse_gas_inventory/index.html.

[California Environmental Protection Agency \(Cal/EPA\)](#)

[2005 Use of California Human Health Screening Levels \(CHHSLs\) in Evaluation of Contaminated Properties. Sacramento.](#)

California Integrated Waste Management Board (CIWMB)

2006 Integrated Waste Management Board website: <http://www.ciwmb.ca.gov/WRAP/search.asp?VW=APP&BIZID=323&YEAR=2004&CNTY=37>, accessed January 31.

California Regional Water Quality Control Board (RWQCB), San Diego Region

2001 Order No. 2001-01, NPDES No. CAS0108758. Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County and the San Diego Unified Port District. February 11, 2001.

2004 Water Quality Control Plan for the San Diego Basin (9). September 8, 1994.

Carr, Scott. Water Reclamation Specialist, San Elijo Water Reclamation Facility

2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning new reclaimed water facilities and infrastructure. January 31.

Citizens for Quality of Life (CQL)

2006 Park Plan as shown on website. www.citizensforqualityoflife.org/quality.htm#VISION. Downloaded April 25.

City of Encinitas

- 1988 City of Encinitas Grading, Erosion and Sediment Control Ordinance, Chapter 23.24 of the Municipal Code.
- 1989 *City of Encinitas General Plan March 29*, as amended.
- 1990 City of Encinitas Noise Ordinance. Municipal Code, Chapter 9.32.
- 1993 Public Safety Element, City of Encinitas General Plan. As amended.
- 1995 Resource Management Element, City of Encinitas General Plan. As amended.
- 2001 *Public Review Draft Encinitas Subarea Plan*. Prepared for City of Encinitas, Community Development Department, Prepared by Ogden Environmental and Energy Services Co., Inc. and Conservation Biology Institute, June.
- 2002a City of Encinitas Storm Water Best Management Practices Manual (Ordinance 2002-14). Adopted December 11, 2002, as amended.
- 2002b Hazardous Waste Manifest. December 16.
- 2004a Noise Element, City of Encinitas General Plan. As amended.
- 2004b City of Encinitas Scenic/Visual Corridor Overlay Zone. Municipal Code 30.34.080.
- 2005a City of Encinitas Design Guidelines. Chapter 6 Lighting Guidelines. April.
- 2005b FY 2003-04 JURMP Annual Report.
- 2006a Clean Water Program. <http://www.ci.encinitas.ca.us/CE/Government/CityD/EngineeringSDL/Clean+Water+Program/>. Accessed February 3, 2006.
- 2006b City of Encinitas, documents/multiple habitat conservation program website http://www.cityofencinitas.org/NR/rdonlyres/951A56AC-F817-473A-A5D4-841517E204EE/0/draft_mhcp.pdf, accessed January 24.

2006c City of Encinitas Wastewater Collection website: <http://www.ci.encinitas.ca.us/Government/CityD/PublicWSDL/Wastewater+Collection/Wastewater+Collection.htm>, accessed January 19.

2006d City of Encinitas website, Encinitas Overview at <http://www.ci.encinitas.ca.us/Visitor/AboutE/EncinitasOP/>, accessed February 3.

[2007 Needs Assessment for Specialized Facilities.](#)

2008 City of Encinitas website, Demographics at <http://www.ci.encinitas.ca.us/Visitor/AboutE/Demographics/>, accessed April 29.

Clay, Roy. Civil Engineer, Miramar Landfill

2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning landfill capacity. February 9.

Climate Change Center

2006 California Climate Change Center. 2006 Scenarios of Climate Change in California: An Overview. February.

County of San Diego

2005a Light Pollution Code. Division 9, Sections 59.101--59.115. Effective, as amended, 6-10-05.

2005b *San Diego County Integrated Waste Management Plan County Wide Siting Element, 2005 5-year Revision*, San Diego County Department of Public Works, Solid Waste Planning and Recycling, September 20-21.

Dokken Engineering (Dokken)

2005a Draft Hall Property Community Park Water Quality and Drainage Study. December 5, 2005.

2005b Hall Property Utility Record Search and Mapping. October 14.

Dudek & Associates, Inc. (Dudek)

2000 Phase I Environmental Assessment. Robert R. Hall, Inc., Encinitas, California. December.

2001 Focused Phase 2 Environmental Site Assessment. Robert R. Hall Property, Encinitas, California. March.

2003 Tree Inventory and Evaluation for the Hall Nursery Park Site, City of Encinitas. February 4.

EDAW, Inc.

2005a Hall Property Community Park Visual Resources Assessment. December.

2005b Johnston, Shawn. Hall Property Community Park Project Biological Letter Survey Report. February 28.

2005c Johnston, Shawn. Follow Up Letter: Rare Plant Surveys for the Hall Community Park Project. December 16.

2005d Cultural Resources Assessment for the Hall Property, Encinitas, California. December.

2006 Noise Impact Analysis, Hall Property Community Park, Encinitas, California. February.

2007 Focused Air Quality Analysis, Children's Health and Exposure to Pollutants from I-5, Hall Property Community Park, Encinitas, California. July 24.

Encinitas Patrol Station, San Diego Sheriff's Department

2004 San Diego Sheriff's Department Encinitas Patrol Station. Annual Report.

2006 Calls for Service – 95 N. Vulcan, Encinitas. June 1, 2005-May 31, 2006. Prepared by the Encinitas Sheriff's Crime Analysis Unit. June 20.

Environmental Business Solutions (EBS)

2004 Phase I Environmental Site Assessment, 425 Santa Fe Drive, Encinitas, California. September 14, 2004.

2005 Subsurface Investigation and Limited Health Risk Assessment, 425 Santa Fe Drive, Encinitas, California. November 22, 2005.

Federal Highway Administration (FHWA)

2004 FHWA Traffic Noise Model, Version 2.5. U.S. Department of Transportation. February.

Fielding, Mara. Senior Project Planner, SDG&E

2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning need for additional SDG&E facilities. February 1.

Fowler, Don. Lieutenant, County of San Diego Sheriffs Department, Encinitas Station

2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning public service and service calls. February 2.

Francis Krahe & Associates, Inc. (FKA)

2006a Lighting Analysis, Hall Property Community Park, Encinitas, California, County of San Diego. February.

2006b Email communication to Kara Friedman, EDAW, regarding additional calculations performed considering parking lot and pedestrian lighting fixtures up to a height of 20 feet. June 29.

Gradient Engineers, Inc. (Gradient Engineers)

2002 Chemical Container Inventory, Robert R. Hall Property, 425 Santa Fe Drive, Encinitas, California. October 18.

Graves, Victor. Assistant Manager, San Dieguito Water District

2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning water availability and new infrastructure. January 31.

Hazeltine, Chris. City of Encinitas Parks and Recreation Department

2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning need for additional park personnel. February 2.

Hope, Andrew, California Department of Transportation, Associate Environmental Planner (Architectural History) and Manager of the California Historic Bridge Inventory

2005 Personal communication with Carrie Gregory, EDAW, Inc. regarding the status of the Mackinnon Avenue Overcrossing and historical context of the bridge. March 2.

Intergovernmental Panel on Climate Change (IPCC)

2007 Climate Change 2007: The Physical Science Basis. Summary for Policymakers. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. February.

- Jacobo, Arturo, Caltrans Project Manager for the I-5 Widening Project
2006 Personal communication with Bill Graham of EDAW, Inc. concerning the funding and timing of Caltrans I-5 widening projects in the Encinitas area.
- Johnson, Wayne. Chief Operating Officer, San Diego Medical Services Enterprise
2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning anticipated calls for emergency services. February 10.
- Katz, Okitsu & Associates (KOA)
2004 Mackinnon Avenue Bridge Realignment and Hall Property Community Park Traffic Impact Study. March.
- Kennedy, M.P.
1975 Geology of the Del Mar Quadrangle; San Diego County, California. Bulletin 200A.
- Linscott, Law & Greenspan (LLG)
2006 Traffic Impact Analysis for the Hall Property Community Park, Encinitas, California. December.
- Li Pera, Don, Environmental Health Specialist, San Diego County Department of Environmental Health
2007 Letter of concurrence with subsurface investigation and limited health risk assessment report.
- Maduska, Anthony. Engineering Analysis, SDG&E
2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning the need for additional natural gas facilities. February 1.
- Masters, Gary. Wastewater Superintendent, San Elijo Water Reclamation Facility
2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning information related to the reclamation facility and capacity availability. January 31.
- Metropolitan Water District of Southern California (MWD)
2006 MWD at a Glance Fact Sheet from the MWD website at <http://www.mwdh2o.com/mwdh2o/pdf/at%20a%20glance/mwd.pdf>, accessed February 6.
- Moore, David. Fire Marshall, Encinitas Fire Protection District
2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning storage of hazardous materials. February 8.

Ninyo & Moore

- 2004 Limited Geotechnical Evaluation for the Hall Community Park Project; Encinitas, California. May 14, 2004.

PaleoServices, San Diego Natural History Museum

- 2005 Paleontological Resource Assessment for the Hall Community Park; City of Encinitas, San Diego County, California. February 17, 2005.

Phillips, Richard, City of Encinitas City Manager's Office

- 2006 Email communication to Jennifer Smith regarding police services in the city. June 6.

Quijada, Manny, Recreation Supervisor, City of Encinitas Parks and Recreation Department

- 2006 Email communication regarding Hypothetical Athletic Special Event Analysis. July 25.

Rimpo Associates (Rimpo)

- 2008 *URBEMIS2007 for Windows, Version 9.2.4*. Available at http://www.urbemis.com/software/Urbemis2007v9_2.html.

RJM Design Group, Inc. (RJM)

- 2004 Preliminary Grading Plan (untitled and undated). Provided to EDAW July 2004.

Sacramento Metropolitan Air Quality Management District (SMAQMD)

- 2004 Guide to Air Quality Assessment in Sacramento County. July.

San Diego Association of Governments (SANDAG)

- 2002 San Diego Association of Governments (SANDAG) No So Brief Guide to Vehicular Traffic Generation Rate for the San Diego Region. April.

- 2003 Census 2000 Profile, City of Encinitas. June 12. Downloaded January 20, 2006 from <http://profilewarehouse.sandag.org>.

- [2004 Regional Comprehensive Plan for the San Diego Region. July.](#)

- 2005 Current Estimates, Fall 2005. Population and Housing Estimates, City of Encinitas. Downloaded January 20, 2006 from <http://profilewarehouse.sandag.org>.

- 2006 San Diego Association of Governments (SANDAG) Environment/Open Space Habitat Preservation/North County Multiple Habitat Conservation Program website:

<http://www.sandag.org/index.asp?projectid=97&fuseaction=projects.detail>, accessed January 27, 2006.

[2007 2030 Regional Transportation Plan Pathways for the Future. Adopted November 30.](#)

San Diego County Air Pollution Control District (SDAPCD)

2004 *San Diego County Air Pollution Control District 8-Hour Ozone Nonattainment Designation*. April 14. Available at http://www.sdapcd.co.san-diego.ca.us/info/notices/8_hour_ozone.pdf.

San Diego County Department of Environmental Health (DEH)

2006a County of San Diego Department of Environmental Health Hazardous Materials Business Plan website, <http://www.sdcounty.ca.gov/deh/hmd/bp.html>, accessed February 8, 2006.

2006b website: www.sdcounty.ca.gov/deh/hazardous_materials.html, accessed January 26, 2006.

San Diego County Water Authority (SDCWA)

2006 Information from SDCWA website: <http://www.sdcwa.org/>, accessed February 6.

[2007 Updated 2005 Urban Water Management Plan. September 2007.](#)

[2008a Strategic Plan. April.](#)

[2008b News Release: Metropolitan Water Authority Join Other Major U.S. Water Agencies to Form New National Climate Alliance. February 26.](#)

San Dieguito Water District (SDWD)

2005 2005 Urban Water Management Plan.

2006 Information from San Dieguito Water District website: <http://www.ci.encinitas.ca.us/Government/CityD/SanDWD/>, accessed January 19.

Scientific Resources Associated (SRA)

2007 Air Toxics Risk Evaluation, Hall Property Community Park, Encinitas, California. July 9.

- Smith, Jennifer. Finance Director, City of Encinitas
2005 Responses to memo from Kara Friedman, EDAW, Inc. regarding information request for public services and utilities for the Hall Community Park Project dated March 14.
- South Coast Air Quality Management District (SCAQMD)
2007 SCAQMD Air Quality Significance Thresholds. Available at <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>.
- Southern California Soil & Testing, Inc. (SCS&T)
2003 Geotechnical Design Report for the Mackinnon Avenue Bridge PSR/PR Interstate 5 Interchange; Encinitas, San Diego County, California. September 2, 2003.
- UC Davis Institute of Transportation Studies (UCD ITS)
1997 Transportation Project-Level Carbon Monoxide Protocol (UCD-ITS-RR-97-21). December.
- United States Department of Agriculture (USDA)
1973 Soil Conservation Service. Soil Survey, San Diego Area, California.
- U.S. Environmental Protection Agency (USEPA)
1997 Exposure Factors Handbook. EPA/600/P-96/002Fa. August.
- [2002 Policy Considerations for the Application of Background Data in Risk Assessment and Remedy Selection. Role of Background in the CERCLA Cleanup Program. OSWER 9285.6-07P. April 26.](#)
- 2004 *8-Hour Ground-level Ozone Designations. Fact Sheet, Clean Air Ozone Rules of 2004.* Available at <http://www.epa.gov/ozonedesignations/>.
- 2005 *PM_{2.5} Designations.* Available at <http://www.epa.gov/pmdesignations>.
- 2006a Asbestos, available at <http://www.epa.gov/asbestos/>.
- 2006b Lead Paint, Dust and Soil, available at <http://www.epa.gov/oppt/lead/>.
- 2006c Envirofacts Data Warehouse, accessed February 16, <http://www.epa.gov/enviro/index.html>.

Ward, Darren. Chief Training Officer, EFPD

2006 Personal communication with Molly Bowden Scarbrough, EDAW, Inc. concerning emergency medical services. January 31.

West-Tech

2003 Hall Greenhouses Deconstruction /Demolition. Recycling Performance. June 6.

2006 Email to City of Encinitas staff detailing construction equipment used during demolition activities. September 13.

White, Chris. Environmental Resource Studies, Caltrans, District 11.

2006 Personal communication with Bill Graham, EDAW, Inc. concerning Caltrans responsibility to meet waste diversion requirements. February 8.

[Zhu, Y., W. C. Hinds, S. Kim, S. Shen, and C. Sioutas](#)

[2002 Study of Ultrafine Particles near a Major Highway with Heavy-Duty Diesel Traffic. Published in Atmospheric Environment, Volume 36.](#)

This page intentionally left blank.

CHAPTER 9

LIST OF PREPARERS

LEAD AGENCY

City of Encinitas

EIR PREPARATION

EDAW, Inc.

Bobbette Biddulph, AICP, Principal

B.S., 1992, City and Regional Planning, California State Polytechnic University,
San Luis Obispo

Years of Experience: 14

Kara Friedman

B.A., 1999, Environmental Studies, University of Kansas

Years of Experience: 7

Molly Bowden Scarbrough

B.A., 1995 Economics and Environmental Studies, Tulane University
M.S., 2000 Community and Regional Planning, University of Texas

Years of Experience: 8

Addie Olazabal

B.A., 2004, Geography, San Diego State University

Years of Experience: 3

William Maddux

B.S., 2000, Urban and Regional Planning, California State Polytechnic University, Pomona

Years of Experience: 6

Jim Kurtz

B.S., 1961, Engineering, University of California Los Angeles

Years of Experience: 30

Julie Wang
B.S., 1997, Animal Physiology and Neurosciences, University of California San Diego
B.A., 1997, History, University of California San Diego
Years of Experience: 9

Jeff Warner
B.A., 2001, Geography, San Diego State University
Years of Experience: 5

Shawn Johnston
B.S., 2000, Biology, San Diego State University
Years of Experience: 10

Carrie Gregory
B.A., 2000, Anthropology, San Diego State University
M.A., 2006, Historic Preservation, Goucher College, Maryland
Years of Experience: 8

EIR TECHNICAL ANALYSIS

Dokken Engineering
Water Quality and Drainage
Glen Parker
Lester Del Rosario

Environmental Business Solutions / SCS Engineers
Hazardous Materials Assessments
Dan Johnson
Ryan Marcos, CAC
Tessa McRae, PhD, RG
David O'Leary
Harry Bishop, P.E.

Focus 360
Visual Simulations
Geoff Preston

Francis Krahe & Associates

Lighting Analysis

Le Nguyen

Nicole Redden

Linscott, Law & Greenspan

Traffic Analysis

John Boarman, P.E.

Stacy Rael

Tuere Farley

Ninyo & Moore

Geological Assessment

Gregory Farrand

Department of PaleoServices, San Diego Natural History Museum

Paleontology Report

Tom Deméré, PhD

Ian Browne

This page intentionally left blank.