EASTLAKE I
SECTIONAL PLANNING AREA (SPA) PLAN
FINAL ENVIRONMENTAL IMPACT REPORT

City of Chula Vista Number: EIR 84-1
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PREFACE

This two volume document comprises the Final EIR for the Sectional Planning Area (SPA) Plan for the Planned Community of EastLake I. A Master EIR was completed for the EastLake project in February of 1982, and the project received discretionary approvals from the City of Chula Vista for the modified General Plan Amendment, prezoning and General Development Plan, and annexation to the City of Chula Vista from the County of San Diego. A Notice of Preparation for the SPA Plan was circulated in February 1984. Subsequently, a Draft EIR was completed for the proposed project and circulated for public review. The Draft EIR was revised in several areas to address concerns raised during the public review period. The revised EIR text and responses to public comments comprises Volume I of the Final EIR. Volume II contains the technical appendices to the EIR, including a Traffic Analysis, Air Quality Analysis and Fiscal Analysis. Additional information regarding the project, including the Planned Community District Regulations and other technical reports prepared by the applicant are available for review at the City of Chula Vista Planning Department.

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SECTION I
INTRODUCTION AND SUMMARY

1.1 PURPOSE

This environmental document addresses the proposed 1267.9-acre EastLake I Sectional Planning Area (SPA). Located in an area zoned as Planned Community (PC) by the City of Chula Vista on August 24, 1982, the project site is located approximately 7.5 miles east of downtown Chula Vista and 8 miles north of the United States/Mexico border.

EastLake I is planned to be a functionally complete community within the City of Chula Vista, and the SPA Plan prepared by the applicant is a refinement and implementation framework for the Planned Community Zoning (a copy of which is on file with the City of Chula Vista Planning Department). EastLake I is a phased development project and the SPA Plan projects development of 3683 homes over a period of 8 to 10 years.

This document is designed to serve as a Supplemental Environmental Impact Report for the EastLake I Sectional Development Plan (EIR-84-1). A Master EIR was completed for the project in February of 1982, and the project received discretionary approvals from the City of Chula Vista for the requested General Plan Amendment, prezoning and General Development Plan, and annexation to the City of Chula Vista from the County of San Diego.

EastLake I is the designation adopted for the current development area of EastLake. On August 24, 1982, the City of Chula Vista adopted the EastLake Policy Plan for the entire 3073-acre community and the Planned Community Zoning for EastLake I. Combined, these constitute the General Plan designation for the property. A provision of the Planned Community Zoning was that, prior to development, a SPA Plan would have to be approved for the planning area. This phase of project approvals, including the preparation of Sectional Development Plans and Tentative Tract Maps is now in process. The site-specific SPA and Tentative Maps are subject to environmental review and comprise the primary focus of this EIR. Discretionary action by the City of Chula Vista will include an amendment to the General Development Plan. Land use designations for the EastLake I SPA vary from the current General Development Plan in terms of distribution, but are in compliance with the intent of the Planned Community designations by type and density.

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The objective of this report is to provide an updated base of information regarding the resources and constraints of the project site, and to discuss the environmental effects of the proposed actions. This EIR, together with the Master EIR (EIR 81-03), provides an assessment of the probable short- and long-term cumulative impacts of the project and provides an evaluation of all feasible mitigation measures necessary to reduce or eliminate adverse impacts. It also analyzes all feasible alternatives to the project as proposed.

Future discretionary action for EastLake I includes the preparation and environmental review of a Supplemental SPA Plan for EastLake Greens and a Precise Plan for Village Center.

The following Planned Community District Regulations adopted by the City of Chula Vista are applicable to the EastLake I project site and are used as guidelines for development of this EIR. The regulations are intended to:

a. Provide for the orderly preplanning and long-term development of EastLake so that the entire community and subsequent extensions of planning areas will provide an environment of stable and desirable character;

b. Give reasonable assurance that Sectional Development Plans prepared in accordance with an approved General Development Plan will be acceptable to the city;

c. Enable the city to adopt measures providing for the development of the surrounding area compatible with the planned community zone;

d. Enhance and implement the General Plan;

e. Secure for the citizens of the city the social and economic advantages resulting from an orderly planned use of its land resources;

f. Establish conditions which will allow land uses to exist in harmony within the community;

g. Facilitate adequate provisions for community facilities, such as transportation, water, sewage, schools, parks and other public requirements;

h. Provide flexibility in development standards and permit planned diversification in the location of land uses and structures;

i. To recognize the inherent influence that economic conditions and consumer needs will have in the implementation of EastLake I and,

j. Allow a diversity of uses, relationships and heights of buildings and open space in planned building groups while insuring substantial compliance with the spirit, intent, and provisions of the Municipal Code. (City of Chula Vista, 1982c.)

1.2 SUMMARY OF FINDINGS

Project Description

The 1267.9-acre EastLake I project site is located in the eastern portion of the City of Chula Vista. Telegraph Canyon Road and Otay Lakes Road bisect the site, which is comprised of a topography of gentle rolling hills dry-farmed for barley production.

The existing City of Chula Vista General Plan designates the project site as the Planned Community of EastLake I (Amendment 1982). Development under the Planned Community (PC) designation requires the preparation of a Sectional Planning Area (SPA) Plan to guide the sequential implementation of the PC's General Development Plan.

The EastLake I SPA Plan as proposed would be developed to include a mixture of residential, employment park, office, commercial, circulation, recreational, educational and open space land uses as specified in the General Development Plan. Two tentative maps, one for residential EastLake Hills and EastLake Shores, and one for EastLake Village Center and EastLake Business Center, are also proposed. The mixture of land uses provides for the development of a balanced community.

Environmental Analysis

The environmental impacts of the proposed project are summarized below. Mitigation measures as listed are required in order to reduce potential impacts to a level of insignificance. If not applied, significant impacts could be expected to occur. More detailed discussions of impacts and mitigation measures for each issue are contained in Section III and the associated Appendices of this report.

Land Use: The land uses outlined in the proposed SPA Plan and Tentative Maps vary slightly from land use designations of the Planned Community Regulations and General Development Plan in terms of distribution. Types and density of land use remain the same, however. The project would allow a maximum of 3683 dwelling units within a total residential area of 619.9 acres (49 percent of the total site area). The remaining 51 percent of the site would be developed for a variety of non-residential land uses on 648 acres. Although acreage within the non-residential land use categories will vary somewhat from the General Development Plan designations, the SPA Plan complies with the intent of the Planned Community Regulations. Even though the employment park acreage is slightly higher than that designated on the General Development Plan, limitations in the Planned Community Regulations will control the scale of the structures. The SPA Plan's extensive design measures preserve the continuity of

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a well-balanced community with a variety of land uses. No significant land use impacts are expected to occur with complete implementation of the SPA Plan.

Transportation and Circulation: The Transportation and Circulation analysis indicates that a large number of streets in the East Chula Vista area will need to be constructed or widened to accommodate cumulative growth from projected area developments. EastLake I, however, will not impact all of these streets. To evaluate which roads will be impacted, a special SANDAG model was used which separates EastLake I traffic from the rest of the study area. Results of this information indicated that EastLake I, along with existing traffic, will create the majority of traffic on the streets within the project and on SR125 between the project and San Miguel Road, and East "H" Street between the project and Otay Lakes Road. Caltrans has indicated that a four-lane intermediate configuration on SR125 is acceptable, with an ultimate configuration consisting of eight lanes, diamond interchanges and a truck lane upgrade from the Sweetwater River Valley. Several existing streets will need to be expanded and the proposed project traffic will also necessitate a minimum of two lanes for SR125 north of San Miguel Road, four lanes for SR125 between San Miguel Road and the southern project boundary, and a minimum of four lanes on Telegraph Canyon Road west of the project. Mitigation measures to reduce significant traffic impacts to a level of insignificance are provided in Section 3.2.

Water Availability: In order to provide water to onsite development, the project site will be annexed to Otay Water District's Improvement District 22. Project development will require the construction of water distribution facilities both onsite and offsite. Financing of the facilities will be accomplished through the combined use of Improvement District annexation fees, OWD capacity charges, meter fees and use of a form of bond funding. The use of reclaimed water for irrigation of open space and recreation areas as well as conservation measures, are proposed as part of the project to ultimately reduce onsite water requirements. As indicated in the Planned Community Regulations, the developer will construct a dual water system in each phase of development, such that reclaimed water, when available and where its use is determined to be feasible and practical, can be used for irrigation of open space, parks and common areas. Even though the project would incrementally increase regional water consumption, implementation of the SPA Plan would represent an insignificant impact to water availability.

Sewer Services: Project development would require the construction of sewage facilities as outlined in the Wastewater Master Plan to provide adequate service to

the project site. Furthermore, negotiations between the developer and the City of Chula Vista must be continued to ensure the timely provision of future sewer service. The location and capacity of the Long Canyon sewer has not yet been determined. Negotiations are currently underway between the applicant and the developer of Bonita Long Canyon Estates to settle this issue. A Supplemental EIR will be prepared for EastLake I which will address potential constraints associated with offsite improvements such as the Long Canyon sewer line. Development of EastLake I would incrementally reduce the capacity at the Point Loma Metro Sewer System. However, due to the large area served by the system and the comparatively small increase generated by EastLake I, the project will not represent a significant effect to sewer services.

Educational Facilities: Students generated by project development would create a need for additional school facilities within the project area. Based on an Elementary School Draft Master Plan prepared for EastLake I, two elementary school facilities are required. The site for one elementary school is proposed in the EastLake Hills neighborhood; the second site will be addressed by the Supplemental SPA Plan for EastLake Greens neighborhood. Negotiations for a high school site at the south boundary of EastLake I (offsite) are currently underway with Sweetwater Union High School District. The establishment of the high school would eliminate the potential incremental effect of EastLake I and other developments on educational facilities. The provision of the facilities outlined above would adequately serve students generated by EastLake I. Assuming that the schools will be developed in the established time frames and in accordance with need, the potential impacts to existing facilities would be reduced to a level of insignificance.

Police Protection: An adverse though non-significant impact could occur to police protection services due to an increased demand in a service area currently operating above the optimum response time. However, additional police staff is anticipated to be added with funds generated by EastLake and other similar developments, and no significant impacts would then occur.

Fire Protection: Development of EastLake I would constitute an adverse impact initially, as existing facilities and personnel would be required to provide fire protection services to a larger geographical area and population. This short-term impact will ultimately be mitigated to a level of insignificance through the provision of an equipped fire station, which is the responsibility of the developer.

Parks and Recreational Facilities: The proposed SPA Plan for EastLake I designates 284.4 acres of open space and 47.8 acres of parkland (32.9 acres of neighborhood

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parkland and 14.9 acres of community parkland) to serve future project residents. Three minor parks at approximately 0.5 acre each are proposed in the residential parcels of EastLake Shores. No adverse impacts related to parks would occur.

Library Services: The proposed project would increase the demand for library facilities and represents an adverse impact. This impact would be eliminated through the provision of a temporary community-oriented library or bookmobile; and ultimately with the development of EastLake II, the construction of a separate library facility financed by any combination of Mello-Roos, State library funds, grants and/or specially earmarked City revenues, and acceptable to the Library Director of the Chula Vista Public Library.

Energy Supply and Conservation: Adequate facilities will be available to transport gas and electricity to the project site. Since the continued availability of energy supplies cannot be assured, the SPA Plan has incorporated measures to reduce natural gas and electricity consumption and conserve fuel. Thus, the development of EastLake I would not adversely affect gas and electric facilities or the conservation of energy resources.

Other Utilities and Services: Project development would incrementally increase the use of and demand for other services including solid waste disposal, telephone service, and hospital and ambulance services. No significant impact to these services and facilities are anticipated.

Visual Resources: The proposed EastLake I development would change the appearance of the project site as the pastoral character of the existing landscape would be replaced by urban development. The project site has been designated in the Chula Vista General Plan for urban development, however, and the SPA Plan does not present a significant alteration to this commitment. To avoid potential visual impacts the project has incorporated extensive design measures including designation of open space and parks, providing a landscape plan with visual buffer zones, landscape zones, a plant matrix, a street tree plan, trails plan, signage plan, fencing plan and a grading plan. The plan also seeks to maintain the intent of the Scenic Highways Element. No significant visual impacts are expected to occur with complete implementation of the SPA Plan.

Geology/Soils: Based on the preliminary geotechnical investigation of the project site, it has been determined that development is feasible from a geotechnical standpoint. There appear to be no significant geotechnical constraints onsite that cannot be mitigated by proper planning, design and sound construction practices.

Mitigation measures as outlined in the investigation and provided in the SPA Plan will reduce the potential impacts to a level of insignificance.

Hydrology/Drainage: The project site is located within five drainage basins that are tributary to the Sweetwater and Otay Rivers. Runoff volumes from the site will increase slightly for each of these basins while total sediment loads would be decreased after site development. In the Long Canyon basin, there are existing downstream flooding conditions for which improvements are planned. The proposed project would avoid significant impacts to this basin by providing drainage improvements that reduce the peak flows from the property. In the Telegraph Canyon basin, the minor increase in surface runoff during a 50-year storm event would not have significant impacts once the planned downstream improvements are in place. In meetings conducted with the City of Chula Vista and the applicant, downstream improvements have been addressed. It was resolved that interim drainage facilities improvement on EastLake I would include a retention basin in the Commercial Center area, in order that downstream flows would not increase beyond existing levels. Long-term drainage facilities improvements would be financed under a fee district to be instituted by the City of Chula Vista. The peak 50-year flows from the project site in the Proctor Valley basin would decrease after site development and no significant impacts would result. No adverse impacts would be associated with project development in the Salt Creek or Poggi Canyon basins, tributary to the Otay River.

Air Quality: Air quality emissions resulting from project implementation would conform to the regional air quality management plan and the project would not impede the attainment of air quality standards within the San Diego air basin. EastLake I includes several measures to reduce vehicle travel and the consumption of natural gas and electricity. The corresponding decrease in air quality emissions is considered a beneficial effect associated with project development. No adverse impacts are anticipated concerning air quality.

Socioeconomic Factors: The proposed population for EastLake I SPA conforms to population statistics projected for the EastLake Planned Community and would not adversely affect socioeconomic factors. Proposed housing for the development meets and exceeds the requirements of the Planned Community Regulations and General Development Plan in providing low-and moderate-income housing and manufactured housing. No adverse impacts to housing are anticipated. The slight increase in employment opportunity under the SPA Plan is considered a beneficial socioeconomic impact and no mitigation measures are necessary.

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Fiscal Analysis: Based on the fiscal analysis prepared by Public Affairs Consultants, the EastLake I SPA Plan is estimated to provide net revenues which would result in a beneficial fiscal impact to the City of Chula Vista. No significant adverse impacts are anticipated concerning the fiscal issue.

Noise: The noise analysis for EastLake I shows that nearly one-quarter to one-third of the site development could be potentially impacted by roadway noise levels above the City of Chula Vista's maximum residential limit of 65 dB CNEL. An even greater area would potentially be impacted by roadway noise levels of 57 dB CNEL. The area of potential noise impacts may be reduced considerably by the use of barriers (berms and walls) and sensitive land use setbacks from major roadways. However, both topography and the first "row" of development structures adjacent to a roadway will have the potential to reduce noise impacts without specific barrier construction or noise related property development setbacks. At the time of development in potentially noise impacted areas, site (and plan) specific noise studies must be performed to assess the actual noise environment and provide any engineering designs to mitigate or reduce potential adverse impacts. In addition to the use of barriers and setbacks for reducing outdoor noise impacts, sensitive indoor uses may be protected by the acoustical engineering design of building exterior walls, windows, doors, roofs and ventilation systems.

The noise impacts from the initial construction phases of the proposed project are expected to be minimal since the project is in a relatively unpopulated area with the exception of the residential area to the southwest of the project area. Construction of the major roadways and utilities services which will occur either with or without the development of EastLake Phase I may be expected to cause some impacts to existing residents. Since the proposed project area would not be "built out" for a number of years, it can be expected that after initial stages of development, increasing numbers of "new" residents could be exposed to noise impacts from interim and final stages of construction. Therefore, the use of quiet equipment and good neighbor work schedules which would initially be important only in the area of existing residents, would in later stages be necessary throughout the project region.

Biological Resources: The biological resources concentrated in the northern and northwestern portions of the project site have been placed in designated open space, retaining the majority of existing native vegetation and the inclusive sensitive species. As this habitat would be retained as natural, undisturbed open space, no significant biological resource impacts would occur.

Archaeological Resources: Archaeological site CA-SDi-7179, composed of 5 loci, is located within the EastLake Business Center. A data recovery program has been conducted for Locus B of the site to mitigate adverse effects of the SDG&E Interconnection Project. The four remaining loci of the site would be impacted by EastLake I development. Mitigation measures involve a two-stage investigative data recovery program to avoid potential significant impacts of project development.

Paleontological Resources: There is minimal potential for adverse impacts to significant paleontological resources on the project site. To ensure that significant and potentially unique fossils and paleontological resources are not destroyed without examination and analysis, it is recommended that a qualified paleontologist monitor the initial grading activities in the Sweetwater Formation as it appears in the drainage walls. The mitigation measures presented would avoid potential adverse impacts to subsurface resources.

Growth Inducement: The majority of the EastLake I project site is surrounded by land zoned for urban growth. The western and northwestern portions of the project site would be contiguous with existing or approved development zoned for low- to medium-density residential use. The southern and eastern portions of the project site would be contiguous with land zoned as "future urban." Approval of the EastLake I SPA would have some growth-inducing effects on the existing undeveloped land southwest and northeast of the project boundaries; and may encourage surrounding planned developments to take place sooner than would otherwise occur without the project. Development of EastLake I as an urban community in an area projected for future urban growth does not present a significant adverse growth inducing impact and complies with the intent of the City of Chula Vista growth management plan.

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SECTION II
PROJECT DESCRIPTION

2.1 GEOGRAPHIC LOCATION

The 1267.9-acre EastLake I project site is located approximately 7.5 miles east of downtown Chula Vista and 8 miles north of the United States/Mexico border, within the City of Chula Vista corporate boundary. Bisected by Otay Lakes Road, the property is situated approximately 1.5 miles west of the Upper and Lower Otay Lakes and directly south of Proctor Valley Road. The regional location and topography of the project site are indicated on Figures 2-1 and 2-2.

2.2 EXISTING TOPOGRAPHY AND LAND USES

The project site topography is typical of the western foothills of the Peninsular Range, consisting of rolling hills cut by drainage courses. Elevations range from 750 feet above mean sea level (MSL) at the southeast portion of the site, to 370 feet above MSL in the northwest corner of the site where the site slopes down to Proctor Valley. The highest portions of the site, 700 to 750 feet above MSL, are located along the crest of the north/south trending ridge in the southeast portion of the site that divides the Salt Creek and Otay Lakes watersheds (Figure 2-2). A northeast/southwest trending ridge on the project site's northwest corner has ridge crest elevations of approximately 600 feet that divide the Telegraph Canyon watershed from the Sweetwater River watershed. Various drainages extend into the project site boundary, including Poggi Canyon in the south, Telegraph Canyon in the center, Long Canyon in the west and Proctor Valley in the north (Figure 2-2).

The majority of the project site is currently dry-farmed for barley production, with several small areas in the western extension and northwestern portions of the site remaining natural.

Other land uses onsite include the Second San Diego Aqueduct, an 80-foot wide San Diego County Water Authority easement which crosses the northwestern extension of the project site and borders the southern edge of the site (Figure 2-2). A water tank surrounded by eucalyptus trees is located on the southeast extension of the project site. The 60-foot wide easement for paved Otay Lakes Road bisects the site and several graded and unimproved dirt roads cross the site, including Proctor Valley Road in the north and Janal Road north of the intersection of Telegraph Canyon Road and Otay Lakes Road. San Diego Gas and Electric Company has a 120-foot wide easement for its 230 kV transmission line which crosses the central and southwestern

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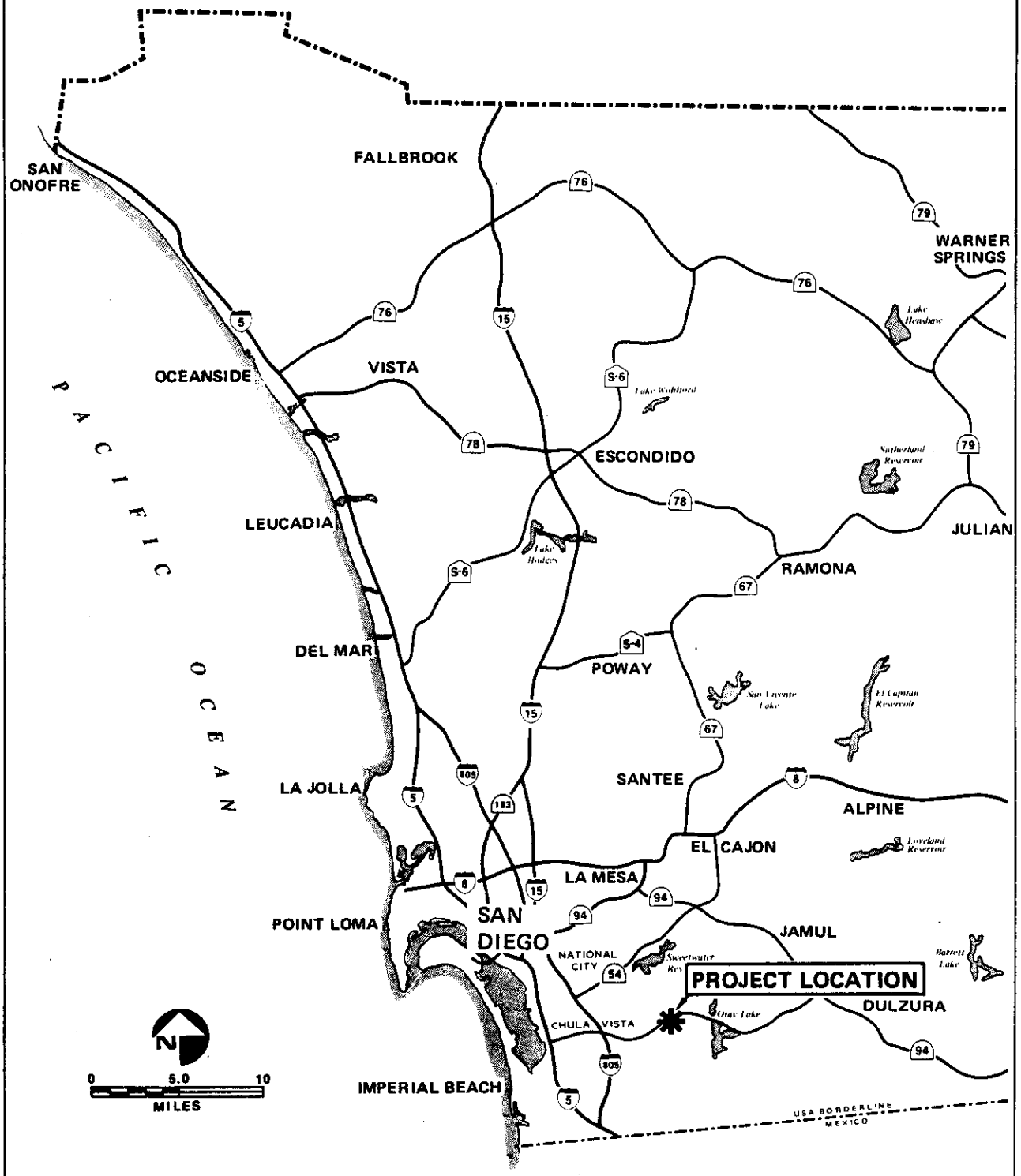
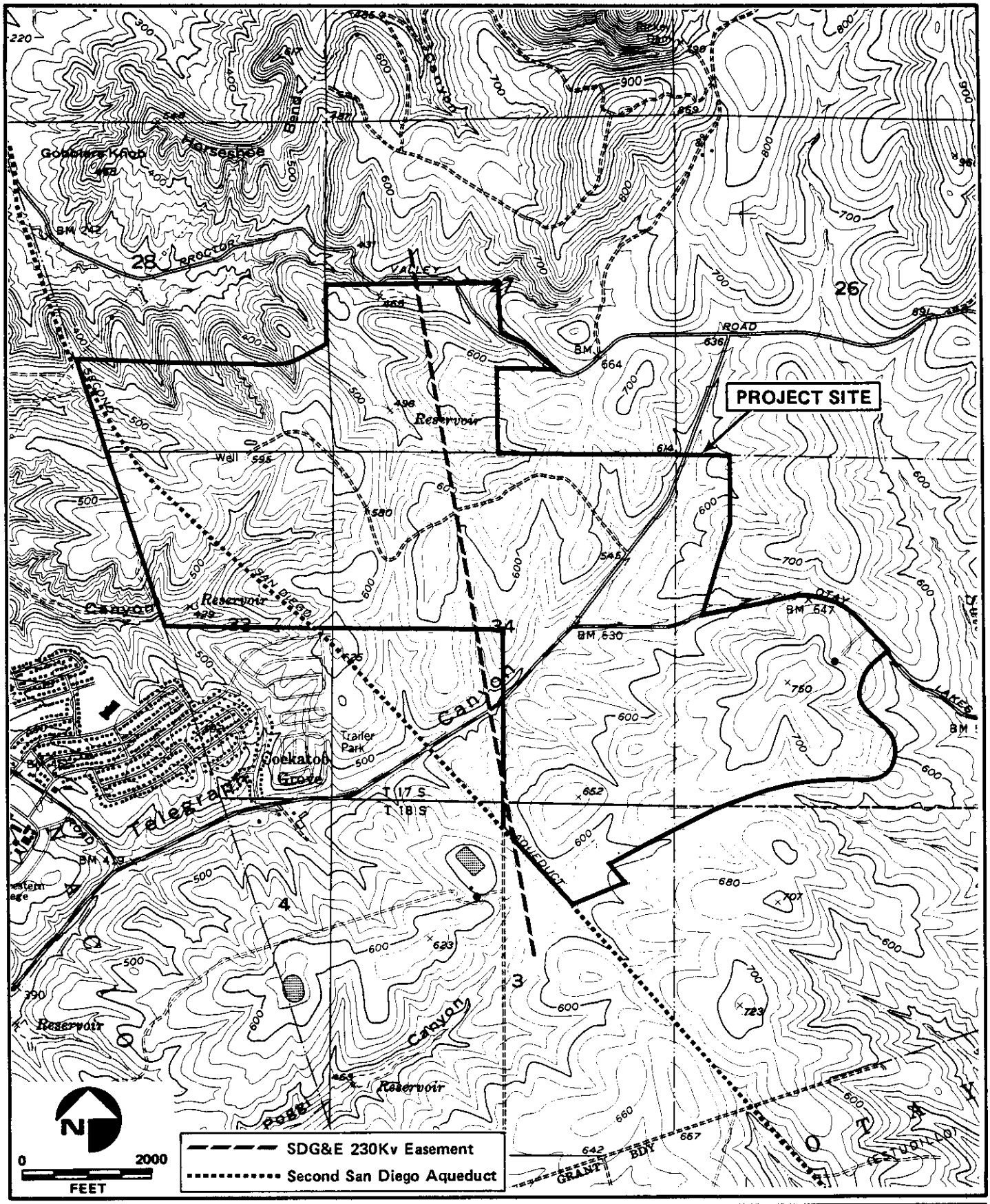


Regional Locale of Project Site

FIGURE 2-1



Location and Topography of Project Site and Vicinity
(USGS Jamul Mountains Quadrangle)

FIGURE 2-2

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portions of the project site in a northwest to southeast direction (Figure 2-2). In the future, two 69 kV lines are planned adjacent to the 230 kV line, but it is uncertain whether the right-of-way will need to be widened (McGuire, 1984). A 250-foot wide SDG&E easement also crosses the extreme northwest boundary of the project site. The 138 kV transmission line associated with this easement is located off the property.

The land surrounding the EastLake I project site is largely undeveloped. The property is currently bounded on the northeast, east and south by agricultural land used for dry-farming of barley. To the north, the slopes adjacent to Proctor Valley Road are grazed or in natural condition. Steep slopes north of the project site and south of Proctor Valley Road are also in a natural state with the exception of extensive off-road vehicle (ORV) use trails.

Single-family homes built in the early 1980s are located on a mesa top adjacent to the northwest corner of the project site. Also on the west is natural land with ORV activity, north of Long Canyon. South of Long Canyon and at the southwest boundary of the project site are single-family homes with the Burton C. Tiffany elementary school, and the Otay Lakes Lodge Mobile Home Park. Southwestern Community College is located further west, across Otay Lakes Road. Additional existing and planned residential uses within the Chula Vista, Bonita and Sunnyside areas are located to the west and northwest. East "H" Street currently extends from I-805 westward to Otay Lakes Road and terminates directly south of Bonita Vista High School, approximately 1 mile west of the project site boundary.

Upper and Lower Otay Lakes are located 1 to 1.5 miles east of the southeast project boundary. Otay Lakes is a regional park used extensively for recreational purposes including fishing, camping and picnics. Further east and southeast is the more rugged, undeveloped terrain of the Jamul Mountains and San Ysidro Mountains. The undeveloped Mother Miguel and San Miguel Mountains are located 1-1/2 to 2 miles north/northeast of the project site.

2.3 PROJECT CHARACTERISTICS

The EastLake I project as proposed is designed as a 1267.9-acre Planned Community. The EastLake I SPA includes a mixture of residential, employment park, office, commercial, circulation, recreational, educational and open space land uses.

The applicant is requesting adoption of a Sectional Development Plan to guide development of the EastLake Planned Community. The General Development Plan, a component of the Planned Community District Regulations, reflects land use, circulation and open space patterns in conformity with the Chula Vista amended General Plan.

The General Development Plan for EastLake I is shown on Figure 2-3. Specific acreage, density and land uses which guide development of the 1267.9-acre site are defined by the Planned Community District Regulations for EastLake (on file with the City of Chula Vista Planning Department). The Site Utilization Plan for the EastLake I SPA is shown on Figure 2-4 and is intended to establish the basic land use allocation and development standards to supplement and refine those established in the Planned Community General Development Plan.

The project as proposed in this SPA would allow a maximum of 3683 dwelling units within a total residential area of 619.9 acres (approximately 49 percent of the total site area). The project site is divided into five neighborhoods, four of which will contain residential development (EastLake Business Center will be employment park uses only) as designated on Figure 2-5. One of the neighborhoods, EastLake Village Center, will be primarily commercial land use, with only 405 permitted dwelling units on 18 acres of land. The four neighborhoods will include five density ranges as shown on the Site Utilization Plan, Figure 2-4. The residential density types will be composed of conventional single-family detached dwellings on lots ranging from 3100 square feet to 15,000 square feet (Van Dell & Associates, 1984); zero and double-zero lot line patio homes, duplexes, triplexes, mobile home parks, and other attached and detached residential cluster arrangements; and condominiums, garden apartments and other similar multi-family residential uses. A detailed description of and standards for each type of residential use is included in the Planned Community District Regulations for EastLake (on file with the City of Chula Vista Planning Department).

The average net residential density of the project is 5.9 du/acre, based on the total gross residential acres within the project. The net density ranges for the four residential neighborhoods of EastLake I are as follows:

Table 2-1

NEIGHBORHOOD NET DENSITY RANGES

Residential Neighborhood	Acreage	Residential Net Density Range (units/acre)
EastLake Hills	137.1	3.3
EastLake Shores	136.3	10.7
EastLake Village Center	18.0	22.5
EastLake Greens	328.5	4.1
TOTAL	619.9	5.9

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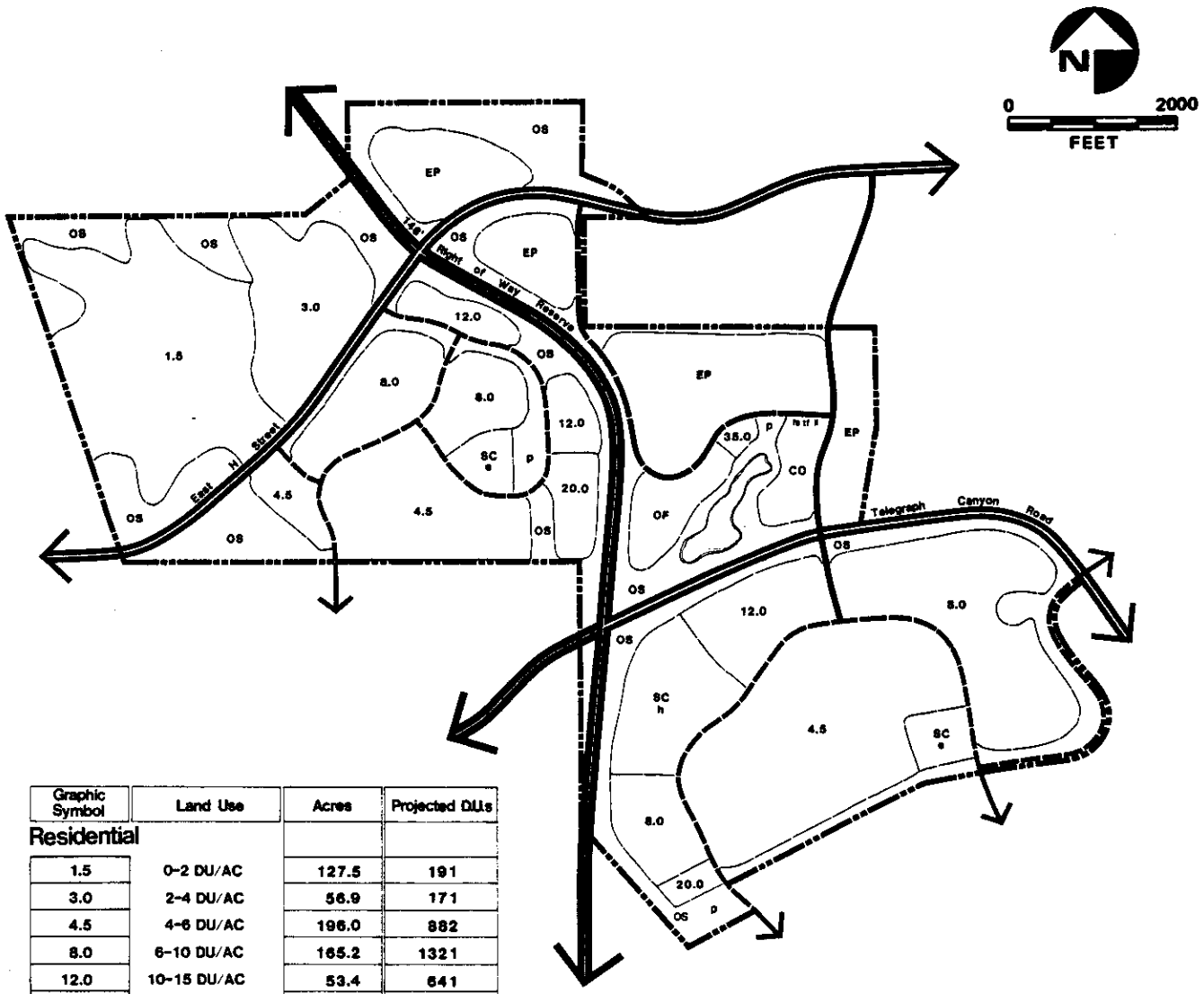


Graphic Symbol	Land Use	Acres	Projected D.U.s
Residential			
1.5	0-2 DU/AC	127.5	191
3.0	2-4 DU/AC	56.9	171
4.5	4-6 DU/AC	196.0	882
8.0	6-10 DU/AC	165.2	1321
12.0	10-15 DU/AC	53.4	641
20.0	15-25 DU/AC	18.8	376
35.0	25-40 DU/AC	2.9	101
Residential Sub-Totals		620.7	3683

Graphic Symbol	Land Use	Acres
Non-Residential		
EP	Employment Park	145.3
OF	Office	19.2
CO	Commercial	15.0
SC	School	59.9
OS	Open Space/ Recreation	301.4
	Circulation	106.4
Non-Residential Sub-Totals		647.2
Project Total		1267.9
Gross Project Density		2.9

PRIME ARTERIAL
6 LANE DIVIDED - 126' R.O.W.

MAJOR
4 LANE DIVIDED - 96' R.O.W.

COLLECTOR
4 LANE UNDIVIDED - 80' R.O.W.

COMMERCIAL INDUSTRIAL
2 LANE UNDIVIDED - 72' R.O.W.

RESIDENTIAL COLLECTOR
2 LANE UNDIVIDED - 55' R.O.W.

Graphic Notes
(Conceptual Location of Community Facilities)

Schools
- e elementary school
- h high school

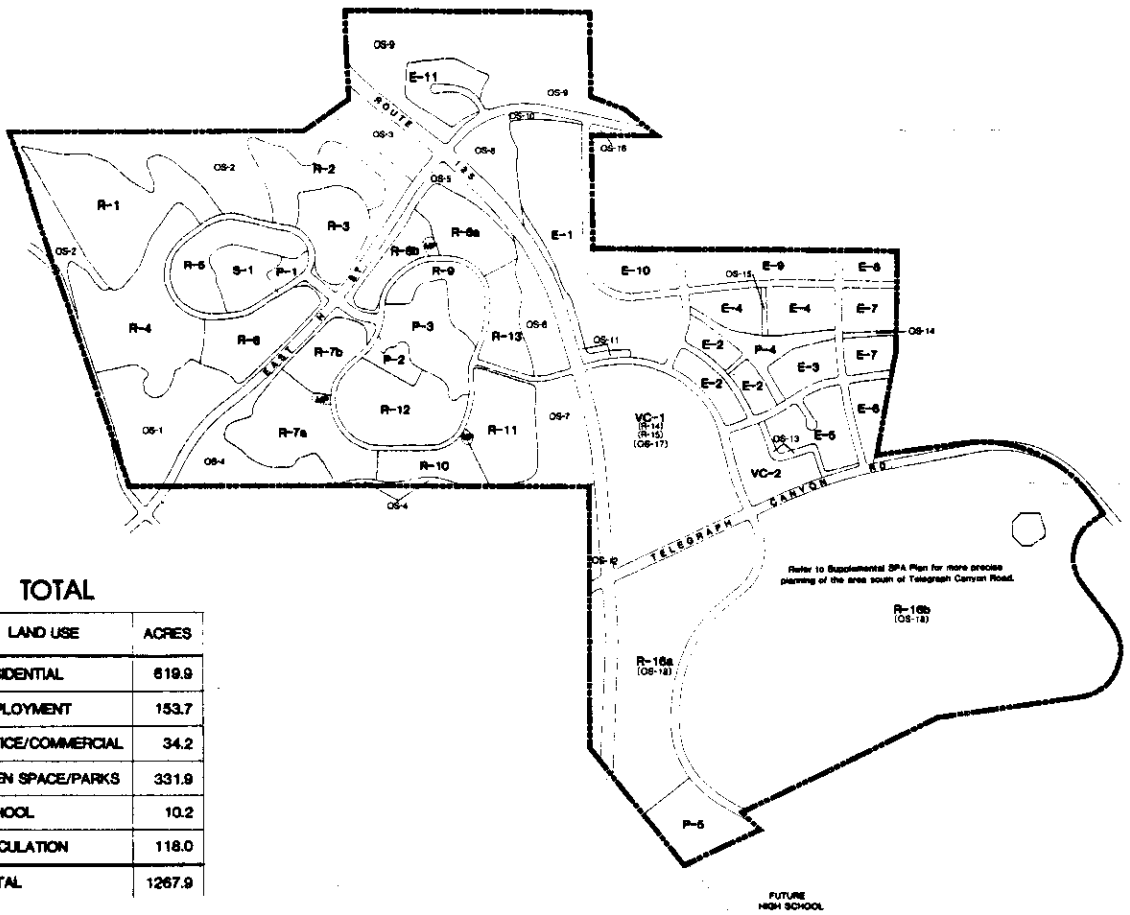
Parks
- p neighborhood park

Other
- lake
- fs fire station
- tf transit facility
- l library

SOURCE: Cinti & Associates, 6/25/82

General Development Plan for EastLake I Planned Community Zoning

FIGURE 2-3



PROJECT TOTAL

	LAND USE	ACRES
	RESIDENTIAL	619.9
	EMPLOYMENT	153.7
	OFFICE/COMMERCIAL	34.2
	OPEN SPACE/PARKS	331.9
	SCHOOL	10.2
	CIRCULATION	118.0
	TOTAL	1267.9

RESIDENTIAL

PARCEL NO.	ATTACHED (A) DETACHED (D)	DENSITY RANGE	ACRES	TARGET DENSITY	PERMITTED D.U.
R-1	D	0-6	36.2	2.0	73
R-2	D	0-6	16.8	1.8	31
R-3	D	0-6	14.4	4.0	57
R-4	D	0-6	36.7	3.6	133
R-5	D	0-6	15.7	5.0	78
R-6	D	0-6	17.3	5.0	86
Sub-total			137.1	3.3	458
R-7a	D	5-15	25.6	5.2	134
R-7b	A	5-15	10.8	10.0	108
R-8a	A	5-15	14.5	10.0	145
R-8b	D	5-15	8.7	6.1	53
R-9	A	5-15	11.3	10.0	113
R-10	A	15-25	9.5	18.0	171
R-11	A	5-15	19.9	10.0	199
R-12	A	15-25	24.7	17.0	420
R-13	A	5-15	11.3	12.0	136
Sub-total			136.3	10.7	1479
R-14	A	15-25	15.0	20.0	300
R-15	A	25-35	3.0	35.0	105
Sub-total			18.0	22.5	405
TOTAL (north of Telegraph Canyon Rd.)			291.4	8.0	2342
R-16a	A/D	0-25	42.0	4.1	171
R-16b	A/D	0-25	286.5	4.1	1170
TOTAL (south of Telegraph Canyon Rd.)			328.5	4.1	1341
PROJECT TOTAL			619.9	5.8 avg.	3683

OPEN SPACE/PARKS

PARCEL NO.	LAND USE	ACRES
OS-1	OPEN SPACE	29.4
OS-2	OPEN SPACE	56.0
OS-3	OPEN SPACE	11.1
OS-4	OPEN SPACE	20.9
OS-5	OPEN SPACE	6.5
OS-6	OPEN SPACE	11.2
OS-7	OPEN SPACE	17.4
OS-8	OPEN SPACE	11.7
OS-9	OPEN SPACE	54.7
OS-10	OPEN SPACE	1.6
OS-11	OPEN SPACE	4.0
OS-12	OPEN SPACE	1.8
OS-13	OPEN SPACE	2.5
OS-14	OPEN SPACE	0.8
OS-15	OPEN SPACE	0.7
OS-16	OPEN SPACE	0.9
OS-17	O.S. / PUB. FAC.	20.6
OS-18	O.S. / PUB. FAC.	32.6
TOTAL		284.4
P-1	PARK	2.8
P-2	PARK	3.8
P-3	LAKE/PARK	17.5
P-4	PARK	8.5
P-5	PARK	14.9
TOTAL		47.5
S-1	SCHOOL	10.2

(MP) MINOR PARK ±0.5 ac. each (acreage included in residential parcel)

EMPLOYMENT

PARCEL NO.	LAND USE	ACRES
E-1	EMPLOYMENT	45.2
E-2	EMPLOYMENT	14.5
E-3	EMPLOYMENT	8.0
E-4	EMPLOYMENT	16.7
E-5	EMPLOYMENT	13.2
E-6	EMPLOYMENT	6.0
E-7	EMPLOYMENT	12.0
E-8	EMPLOYMENT	4.5
E-9	EMPLOYMENT	13.9
E-10	EMPLOYMENT	9.7
E-11	EMPLOYMENT	10.0
TOTAL		153.7

VILLAGE CENTER

VC-1	VILLAGE CENTER	61.0
VC-2	VILLAGE CENTER	11.8
TOTAL		72.8

VILLAGE CNTR. BREAKDOWN

Residential (R-14 & R-15)	18.0
Office / Commercial	34.2
O.S./Pub. Fac. (OS-17)	20.6
TOTAL	72.8

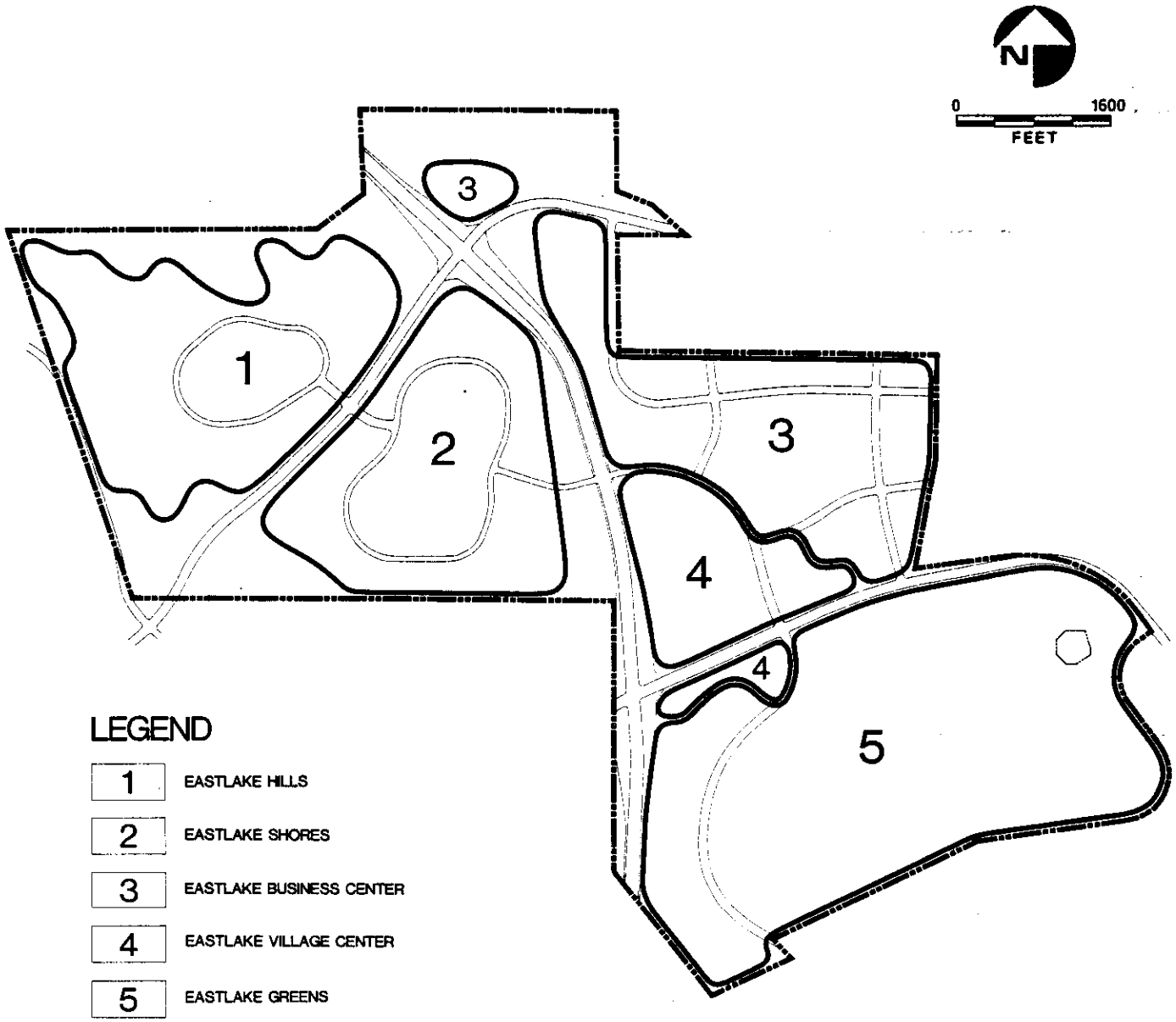
0 2000 FEET

N

Source: Cinti and Associates, 9/4/84

Site Utilization Plan

FIGURE 2-4



SOURCE: Cinti & Associates, 3/9/84

Neighborhoods of EastLake I

FIGURE 2-5

The remaining 51 percent of the project site will be used for a variety of nonresidential land uses as indicated on Figure 2-4 and Table 2-2, including 118 acres for the circulation system.

The SPA Plan provides for 34.2 acres of office/commercial use in the EastLake Village Center, intended to provide the community with neighborhood commercial facilities (i.e., office space, retail service, public services, information center, performing arts center and a specialty center).

EastLake I would also include a 153.7-acre employment park (light/medium industrial, research and development, warehousing, and offices). These uses would provide employment opportunities within the project for residents of the EastLake Planned Community and surrounding region.

Recreational park facilities to provide services to the community are proposed on 47.5 acres in five locations throughout the residential and employment park neighborhoods. The neighborhood private and public parks will include such facilities as swimming pools, restrooms, playgrounds, picnic areas, a 15-acre lake with associated facilities, a recreational building, playing fields and multi-purpose courts. Three minor parks (±0.5 acre each) are proposed within the EastLake Shores neighborhood and are located within the residential parcels of R-7a, R-8b, R-10 and R-11 (Figure 2-4).

Educational land use includes 10.2 acres reserved for an elementary school in the EastLake Hills neighborhood. A high school site is proposed offsite at the southern boundary of the project, to be developed in conjunction with EastLake as the need arises in the future. The SPA Plan also provides for 284.4 acres of open space, which include natural vegetation areas, landscaped areas and some manufactured landscaped slopes.

Figure 2-6 delineates the proposed circulation plan which would serve the EastLake I Planned Community. The 118-acre circulation plan includes bicycle trails and pedestrian walkways to serve the community.

2.3.1 Offsite Improvements

Water Plan

A connection to the Second San Diego Aqueduct along with a new reservoir and pump station are proposed adjacent to the southwest boundary of the project site. The 711-foot high water level (HWL) reservoir onsite is currently supplied by water from the Aqueduct by way of existing offsite Patzig reservoir at the southern boundary of the project. The new offsite 621-foot HWL reservoir and pump station are not required for initial water supply to the project, but eventually will be the primary

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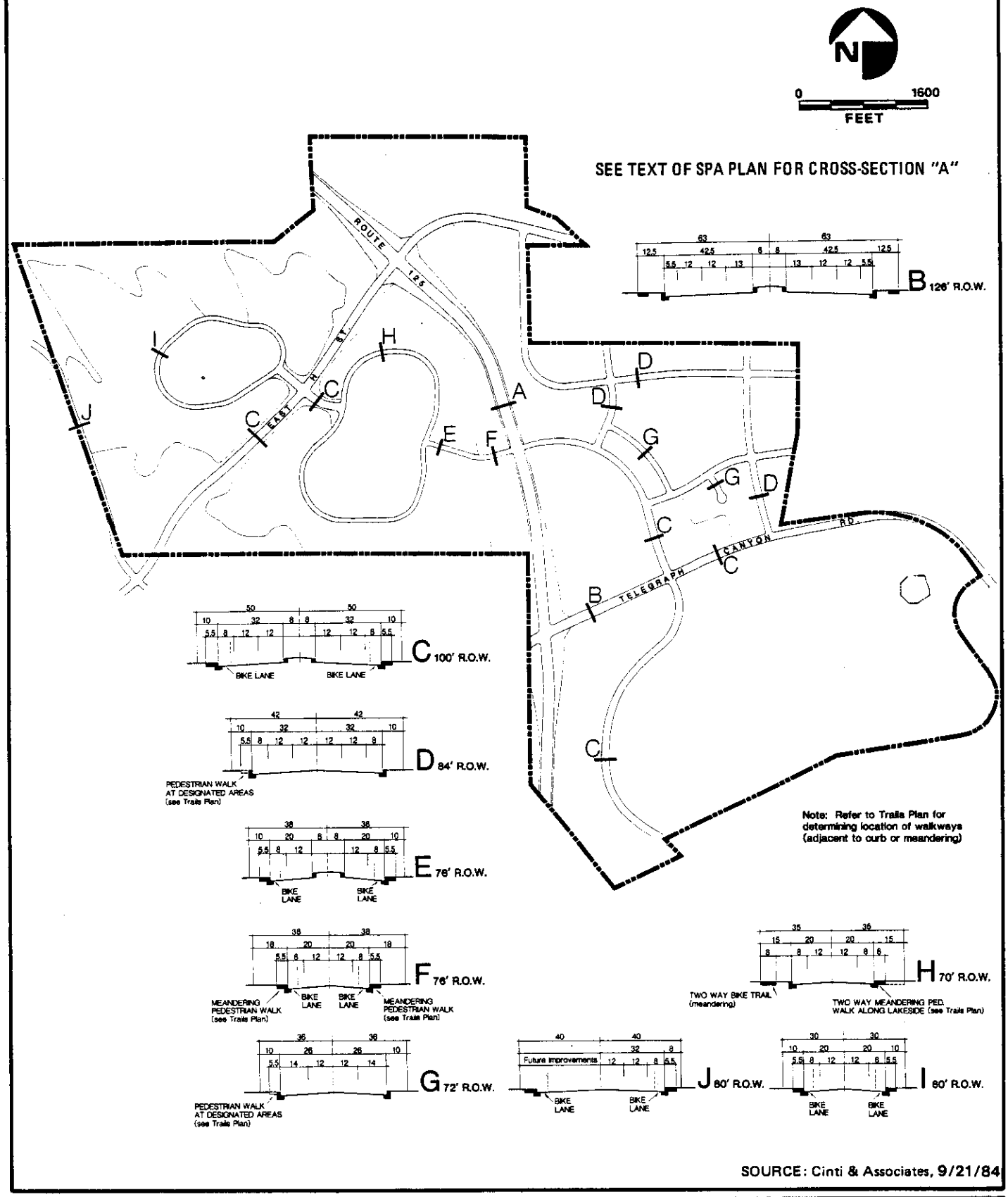
Table 2-2

STATISTICAL SUMMARY OF LAND USE

Land Use	Number of Acres
Residential	
EastLake Hills	137.1
EastLake Shores	136.3
EastLake Village Center	18.0
EastLake Greens	328.5
Subtotal	619.9
Non-Residential	
Employment Park (EastLake Business Center)	153.7
Office/Commerical (EastLake Village Center)	34.2
Recreational	47.5
Educational	10.2
Open Space	284.4
Circulation	118.0
Subtotal	648.0
TOTAL PROJECT ACREAGE:	1,267.9



SOURCE: Cinti & Associates, 9/21/84

EastLake I Circulation Plan and Proposed Street Sections

FIGURE 2-6

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source of supply to the EastLake I community. The proposed pump station will not be constructed as a part of EastLake I, but in future phases of EastLake.

A new pressure zone is also proposed to serve portions of the project site above 570-foot elevation, as well as adjacent development. A tentative 5 million gallon reservoir site has been located north of EastLake within an area owned by Otay Water District (OWD). The 930-foot HWL of the proposed reservoir would provide service to development between the elevations of 570 and 790 feet, and is expected to be constructed in the earliest phase of EastLake I construction.

The water distribution system pertaining to the 930-foot HWL reservoir for EastLake I will include the offsite construction of 16-inch and 20-inch pipelines from the reservoir to the property. An 18-inch reclaimed water supply line is proposed to supply water to the future golf course area of EastLake Greens and several of the project parks from the Jamacha Reuse area north of the project site. Oversizing of pipelines within EastLake I will also be required to accommodate future offsite development adjacent to the project site. The water improvements are further detailed in Section 3.3.1 of this report.

Sewer Plan

The sewer system for EastLake I will require the construction of an offsite interim pump station adjacent to the western extension of the property, until a connection can be made in the future to proposed sewer facilities in Bonita/Long Canyon Estates. A proposed 6-inch force main will carry the wastewater up the future alignment of Rutgers Street to an existing 8-inch sewer line which connects to the 15-inch City of Chula Vista trunk sewer in Telegraph Canyon Road. Oversizing of sewer lines in Proctor Valley and Telegraph Canyon systems to accommodate offsite wastewater flows from the east and north will also be required. Financing for these offsite related facilities will involve reimbursement agreements approved by the Chula Vista City Engineer and based on pro rata flow requirements and actual construction costs. Sewer improvements are further detailed in Section 3.3.2 of this report.

Traffic

In adding the existing traffic to the proposed project traffic and comparing this with the City of Chula Vista design standards, several existing streets will have to be expanded. The proposed project traffic will also necessitate offsite improvements, including a minimum of two lanes for SR125 north of San Miguel Road and a minimum of four lanes on Telegraph Canyon Road (including East Otay Lakes Road) west of the project site. SR125 between the project and San Miguel Road will also need to be

constructed as a four lane major street with widenings at each intersection to six lanes. A minimum of four lanes on East "H" Street will need to be constructed offsite to Otay Lakes Road. The existing and proposed roadway designs are indicated on Figure 3-6 and Table 3-6 in the Traffic Section.

2.3.2 Tentative Map for EastLake Hills and EastLake Shores

A tentative map for EastLake Hills and EastLake Shores has been prepared by the applicant (Figure 2-7). This map indicates the project land uses in greater detail than is shown by the proposed Sectional Planning Area designations.

The tentative map provides for residential, school, open space and recreational land uses on approximately 460.2 acres. Residential use totals 273.4 acres for 1937 permitted dwelling units, 458 of which are in EastLake Hills and 1479 of which are in EastLake Shores. Open space consists of 152.5 acres. The park located in EastLake Hills is comprised of 2.8 acres while the parks in EastLake Shores consist of 21.3 acres. A school site in EastLake Hills is designated for 10.2 acres.

Grading operations for EastLake Hills and EastLake Shores will involve approximately 6 million cubic yards of balanced cut-and-fill, including the development and circulation system (Van Dell & Associates, 1984).

2.3.3 Tentative Map for EastLake Village Center and Business Center

A tentative map for EastLake Village Center and EastLake Business Center has been prepared by the applicant (Figure 2-8). This map indicates the project land uses in greater detail than is shown by the proposed Sectional Planning Area designations.

The tentative map provides for industrial (employment park), commercial, open space and recreational land uses on approximately 311 acres. The subdivision includes 69 lots to accommodate these land uses.

Employment park/industrial use totals 140 acres on 58 lots in the EastLake Business Center area. Nine office/commercial lots are comprised of 79 acres. Open space consists of 11 acres, and a private park in the center of EastLake Business Center is made up of 9.2 acres.

Grading operations for EastLake Village Center and Business Center will involve 5,575,000 cubic yards of balanced cut-and-fill, including the development and circulation system (Rick Engineering Company, 1984).

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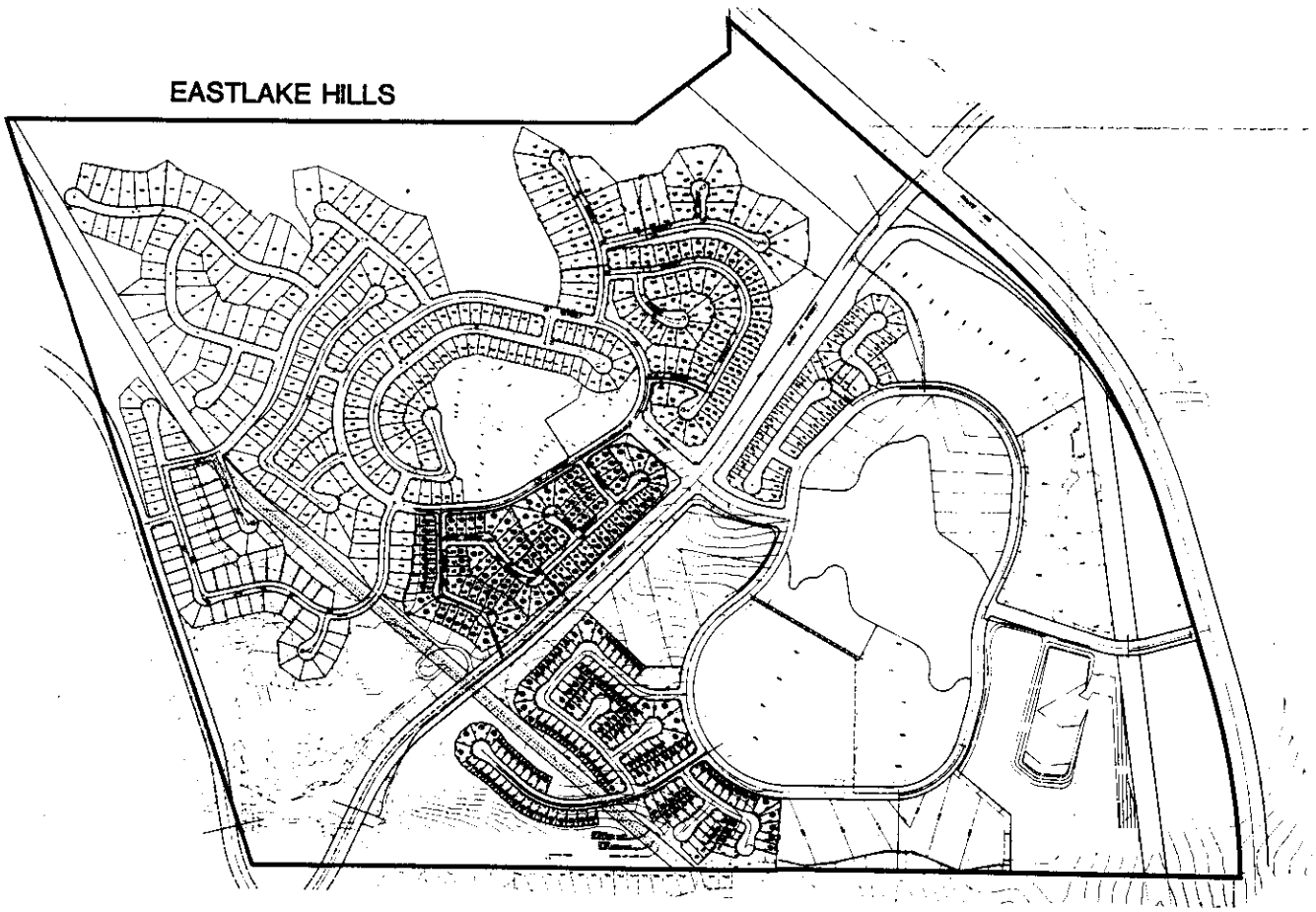
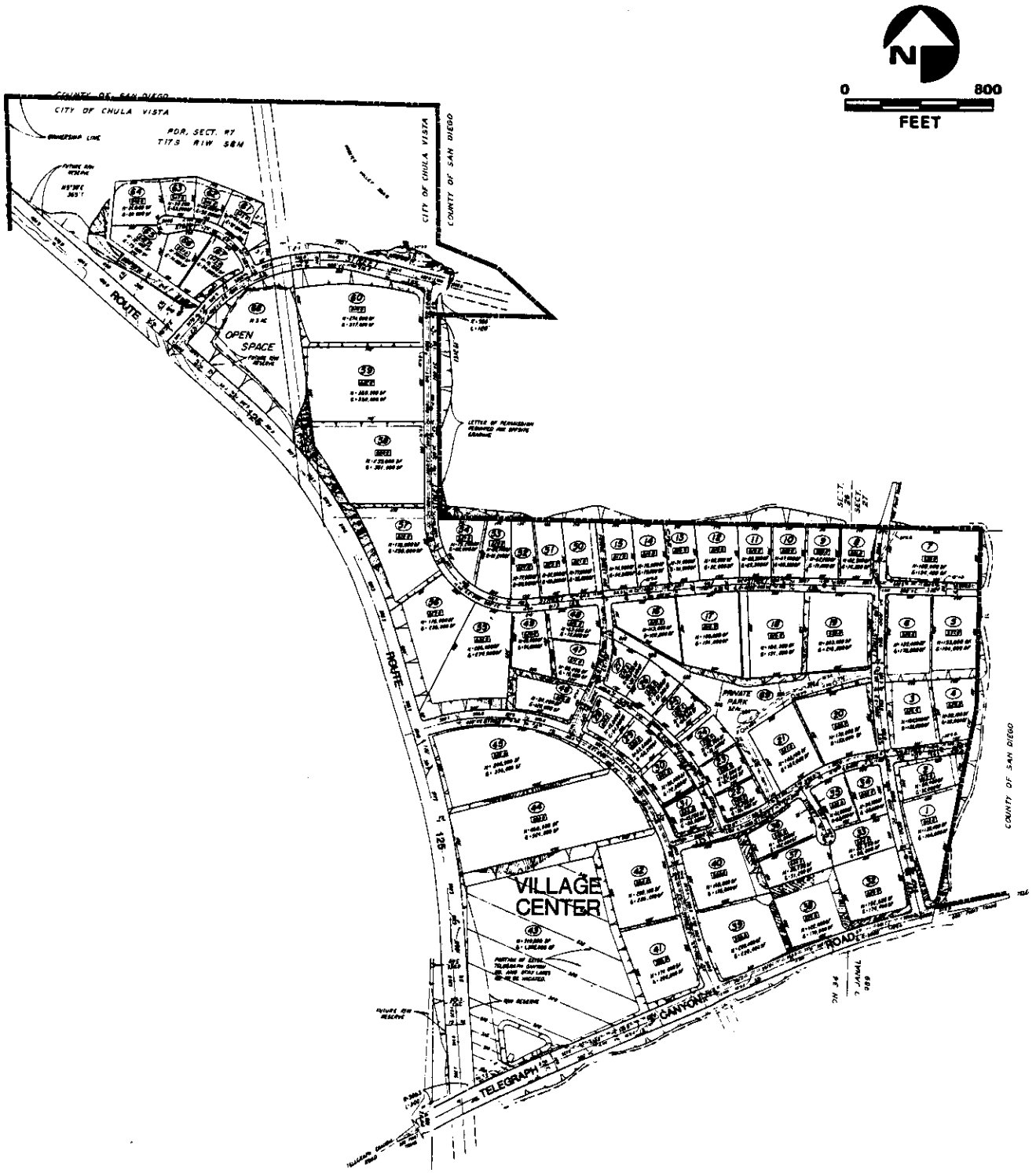


Source: VanDell and Associates: 9/25/84

Tentative Map for EastLake Shores and EastLake Hills

FIGURE 2-7



SOURCE: Cinti & Associates, 6/1/84

Tentative Map for EastLake Village Center and EastLake Business Center

FIGURE 2-8

SECTION III

IMPACT ANALYSIS

Prior to preparation of the Environmental Impact Report (EIR), a draft Sectional Planning Area (SPA) Plan was prepared for the EastLake I project. The document provides information and planning guidelines for the project. Portions of that document, which is on file and available for public inspection at the City of Chula Vista Planning Department, have been incorporated into this EIR where appropriate.

Each topic in this section includes the following subsections: Existing Conditions - describes the environmental setting for each issue; Impacts - an assessment of the effects related to the project; Mitigation Measures - discussion of measures which would avoid or reduce any adverse impacts identified; and Analysis of Significance - conclusion regarding what the significance of any impacts would be after mitigation has been implemented.

3.1 LAND USE

3.1.1 Existing Conditions

The EastLake I project site is composed of 1267.9 acres of land designated for a mixture of urban land uses. The EastLake I project site has been zoned as Planned Community in the Chula Vista General Plan (Amendment 1982). The regulations concerning the Planned Community are on file with the City of Chula Vista Planning Department. Development under the Planned Community designation requires the preparation of a Sectional Planning Area (SPA) Plan to guide the sequential implementation of the General Development Plan in the form of specific development concepts and proposals. The General Development Plan adopted under the Planned Community Zoning is in conformity with the provisions of the Chula Vista General Plan.

The majority of the EastLake I property is currently dry-farmed for barley production. An area of the northern portion of the property is leased for cattle grazing. The catch basin located south of Proctor Valley Road in this northern extension is used for watering cattle. No structures are located within the EastLake I boundaries.

Other land uses onsite include the Second San Diego Aqueduct which crosses the northwestern extension of the property and borders the southern boundary (Figure 3-1). A water tank reservoir is located at the southeast edge of the property. A San Diego Gas & Electric 230 kV transmission line traverses the center of the project site in a northwest to southeast direction. A portion of a 250-foot wide easement for a SDG&E 138 kV transmission line crosses the extreme northwest corner of the property

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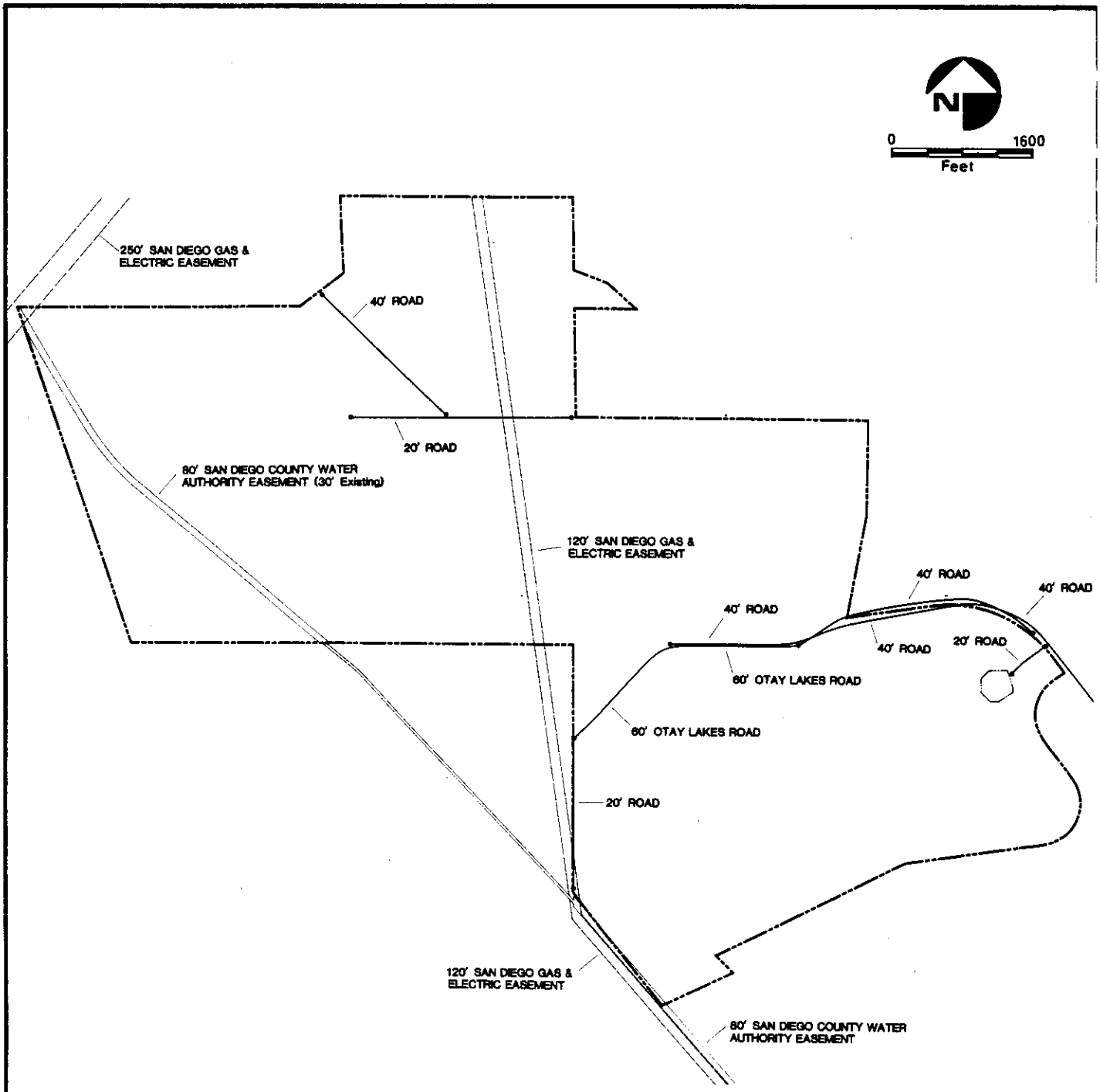

SOURCE: Cinti & Associates, 7/13/84

EastLake I Easements

FIGURE 3-1

(Figure 3-1). Otay Lakes Road, graded dirt Telegraph Canyon Road, and several dirt ranch utility roads also cross the site.

The land surrounding EastLake I is currently largely undeveloped. A majority of the surrounding land is zoned for Low- to Medium-Density Residential and Future Urban development, however (Figure 3-2). EastLake I represents the first phase of the total 3073-acre EastLake community designated on the General Plan as "Future Urban." Land adjoining EastLake I on its southwest and northeast corner boundaries is designated as "Agriculture and Reserve". This area is currently in agricultural use by United Enterprises, and is intended to be held in reserve for potential future development.

Land located adjacent to the west and north boundaries of EastLake I is designated as low- and medium-density residential on the Chula Vista General Plan (Figure 3-2). Currently, some urban uses are located southwest and northwest of the project site, including a mobile home development, single-family residential neighborhoods, and Southwestern Community College further to the west. Additional existing and planned residential uses within the Chula Vista, Bonita and Sunnyside areas are located to the northwest and west.

Located approximately 7.5 miles east of downtown Chula Vista and 5 miles east of the I-805 freeway corridor, EastLake I is a part of the extensive urban development planned for the area between Freeway I-805 and the Otay Lakes Area. Upper and Lower Otay Reservoirs and surrounding parks and public open space are located approximately 1 to 1.5 miles east of the southern boundary of EastLake I. The extensive urban development, both existing and planned, is centered around the major transportation corridors of Otay Lakes Road, East "H" Street and Telegraph Canyon Road, and includes such developments as the El Rancho del Rey Specific Planning Area (2272 acres), Bonita Long Canyon (650 acres adjacent to the EastLake I on the west), and several smaller low- to medium-density residential developments as well as scattered commercial development.

EastLake Planned Community

The Planned Commuity (PC) District Regulations for EastLake I as adopted by the City of Chula Vista are intended to allow a diversity of land uses on the project site, including residential, industrial, commercial office, open space and circulation uses to create a community of stable and desirable character. The development within the EastLake I Planned Community designation is further subject to a Sectional Development Plan which guides specific development concepts in compliance with the General Development Plan.

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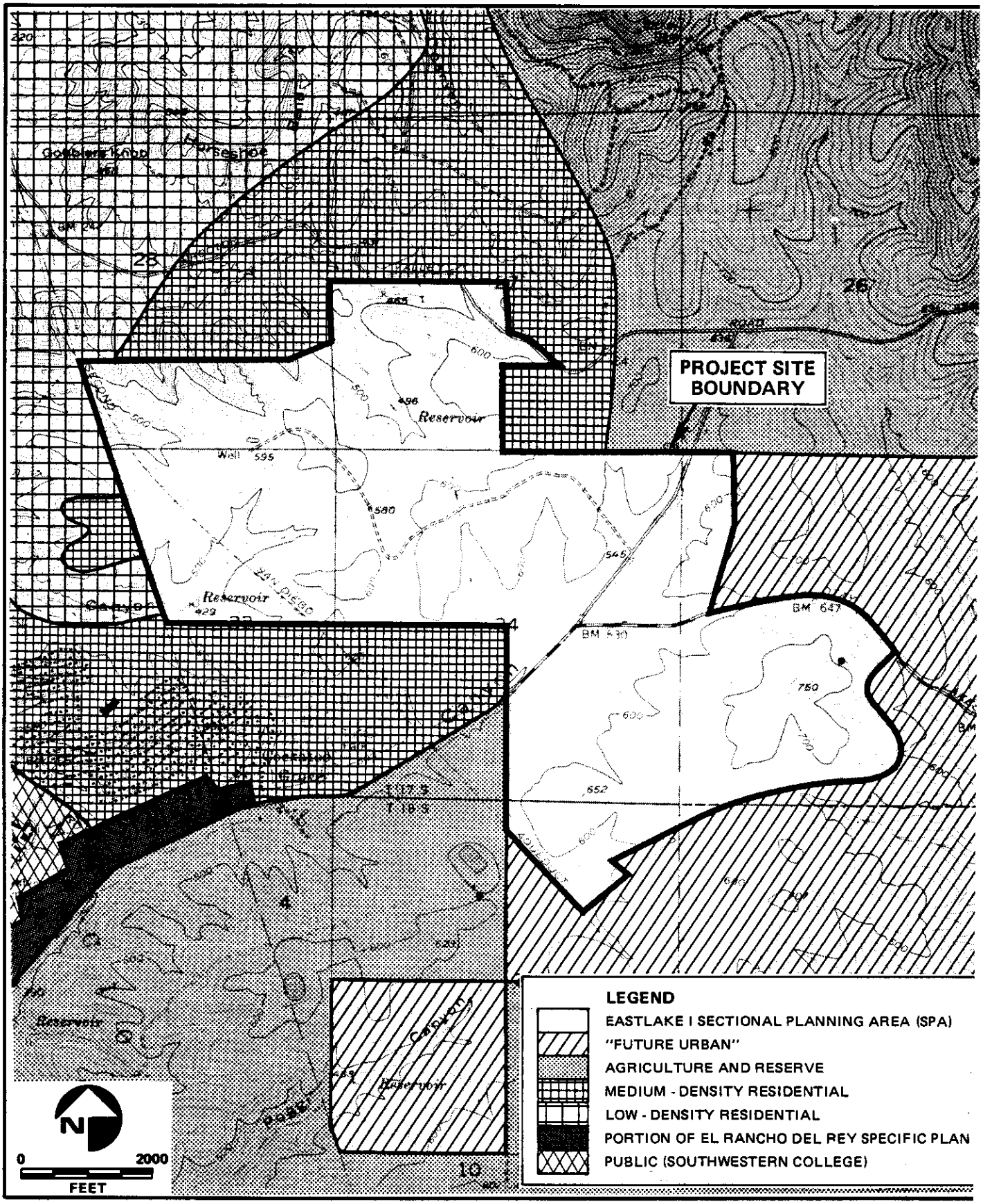

City of Chula Vista General Plan Land Use Designations

FIGURE 3-2

The Planned Community regulations and an accompanying General Development Plan (Figure 2-3) designate statistics for all major land uses on EastLake I. The maximum number of dwelling units allowable under the Planned Community designation is 3683, and the following land uses are permitted:

Table 3-1

PLANNED COMMUNITY REGULATIONS
LAND USE DESIGNATIONS

Land Use	Number of Acres
Residential	
Category	
1.5	127.5
3.0	56.9
4.5	196.0
8.0	165.2
12.0	53.4
20.0	18.8
35.0	2.9
Total Residential Acreage	620.7
Non-Residential	
Employment Park	145.3
Office	19.2
Commercial	15.0
Schools	59.9
Open Space/Recreation	301.4
Circulation	106.4
Total Non-Residential Acreage	647.2
Total Project Acres	1,267.9

3.1.2 Impacts

As indicated on Table 2-1 in the Project Description, entitled Statistical Summary of Land Use, the land use designations for the EastLake I SPA vary from the General Development Plan in terms of distribution, but are in compliance with the

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intent of the Planned Community Regulations by land use type and density. The Amendment to the General Development Plan as proposed in this EIR would reflect the slight change in land use distribution. Residential land use will comprise 619.9 acres while non-residential land use will comprise 648 acres, for a total project acreage of 1267.9 acres. Acreage within the non-residential land use categories will vary somewhat from the Planned Community designations as indicated below:

Table 3-2

NON-RESIDENTIAL LAND USE DESIGNATIONS

Non-Residential Land Use	General Development Plan	EastLake I SPA
Employment Park	145.3	153.7
Office/Commercial	34.2	34.2
Schools	59.9	10.2
Open Space/Recreation	301.4	331.9
Circulation	106.4	118.0
Total	647.2	648.0

School acreage will be decreased in the SPA Plan by 49.7 acres. This acreage is redistributed in the SPA Plan, increasing employment park use by 8.4 acres, open space/recreation by 30.5 acres, and circulation by 11.6 acres. The proposed high school previously planned for EastLake I will be built in subsequent phases of the EastLake community ("Future Urban" designation) to the south, directly adjacent to the south boundary of EastLake I. Determination of adequacy of the school facilities is further evaluated in Section 3.3.3 of this EIR. The SPA Plan conforms to the 3683 permitted dwelling units with an average target density of 5.9 dwelling units per acre.

For the purposes of evaluating compliance of the proposed Site Utilization Plan of the SPA with the General Development Plan and intentions of the Planned Community regulations, this analysis is broken down into the individual five neighborhoods proposed for EastLake I, including 1) EastLake Hills, 2) EastLake Shores, 3) EastLake Business Center, 4) EastLake Village Center and 5) EastLake Greens (Figure 2-5).

EastLake Hills

The EastLake Hills neighborhood, for which a Tentative Map has been prepared (Figure 2-7), is located in the northwestern extension of the site, including residential parcels R-1 through R-6, a 10.2-acre elementary school site and a 2.8-acre

park (Figure 2-4). The EastLake Hills neighborhood is surrounded by 96.5 acres of open space between the major corridors of SR125 and East "H" Street. The open space serves to retain natural slopes to the north, along Long Canyon and to buffer the Second San Diego Aqueduct easement.

The residential parcels include a total of 458 permitted dwelling units (du) on 137.1 acres of land, with an average target density of 3.3 du/acre. The residential density of this neighborhood is similar to that which is designated in the General Development Plan, with projected densities of 1.6 and 3.0 du/acre.

The EastLake I Site Utilization Plan designates residential areas R-1, R-2, and R-4 with respective low densities of 2.0, 1.8 and 3.6 (Figure 2-4). These residential areas are located along the boundaries of the northwestern extension of EastLake I, adjacent to existing and proposed offsite residential development with low densities (1.3 to 2.5 du/acre). The EastLake Hills neighborhood is thus planned for a similar low overall density (3.3 du/acre) to provide compatibility with the character of the surrounding area. The low densities of Parcels R-1, R-2, and R-4 gradually increase in Parcels R-3 (4.0), R-5 and R-6 (5.0), further away from the project boundaries. This land use placement avoids potential land use conflicts with the adjacent offsite parcels by providing a buffer and gradual transition into the higher density EastLake I community.

The EastLake Hills neighborhood proposes a school and park adequate to serve the anticipated population. The park will include such facilities as swimming pools, restrooms, picnic area and a playground. The two main thoroughfares near the EastLake Hills neighborhood, East "H" Street and SR125, are proposed to be aligned in the same general pattern as the General Development Plan.

EastLake Shores

The EastLake Shores neighborhood, for which a Tentative Map has been prepared (Figure 2-7), is located to the south of East "H" and west of SR125 in the western extension of EastLake I project site, including residential parcels R-7 through R-13, a 3.8-acre park site and a 17.5-acre lake/park site. Three minor parks totalling 1.5 acres (0.5 each) are proposed within residential parcels of R-7a, R-8b, R-10 and R-11. The neighborhood is surrounded by 56 acres of open space between the major transportation corridors and buffering the SDG&E 230 kV transmission line.

The residential parcels include a total of 1479 permitted dwelling units on 136.3 acres of land with an average target density of 10.7 du/acre. The residential

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density of this neighborhood is similar to that which is designated in the General Development Plan, with projected densities ranging from 4.5 to 20 du/acre. Densities under the Site Utilization Plan range from 5.2 to 18 du/acre with lower densities located along the southern boundaries of the neighborhood (at the EastLake I project boundary) and along East "H" Street. The offsite neighborhoods to the south are currently zoned medium-density residential at 4 to 12 du/acre. The lower-density land use placement in Parcels R-7a and R-10 in the EastLake Shores neighborhood, at 5.2 du/acre and 9.5 du/acre respectively, avoids potential land use conflicts with the adjacent offsite parcels by providing a buffer and gradual transition into the higher densities of the other EastLake Shores parcels. In addition, the open space (OS-4) designated in this area serves as a buffer to the offsite housing. Higher densities in the EastLake Shores neighborhood are located closer to the central parks or are buffered on the east by open space adjacent to SR125. The school site designated for this area in the General Development Plan is located instead in the EastLake Hills neighborhood.

The proposed parks are anticipated to be adequate to serve the neighborhood population. Park P-2 proposes a swimming pool while Park P-3 proposes a 15-acre recreation lake, restrooms, a multi-use building, a boat launching facility, a sand beach and a picnic area. The lake would serve the EastLake Community to a greater extent within the residential area, rather than the office/commercial area as was indicated in the General Development Plan. The minor parks would serve the residential areas surrounding the central lake/park.

The two main thoroughfares near the EastLake Shores neighborhood, East "H" Street and SR125, are aligned approximately in the same general pattern as the General Development Plan. SR125 is slightly realigned to the west to accommodate its potential as a high-volume route, making less of a curved roadway and increasing the open space in the EastLake Shores neighborhood. The circulation route change does not increase the number of dwelling units allowed in EastLake I, but increases continuity within the employment park area of EastLake Business Center. Expanding the employment park use rather than incorporating residential uses into an industrial area, is considered to be more consistent with the intent of the original Planned Community Regulations. The residential collector streets within the EastLake Shores neighborhood have also been realigned from the General Development Plan to provide more of a community sense with outlets to East "H" Street and under proposed Highway SR125 to the employment park and commercial areas rather than just East "H" Street and offsite. The streets are aligned in a loop pattern with the parks and lake as a central focus. The

proposed street alignment is anticipated to enhance the visual quality and sense of community of the EastLake Shores neighborhood.

EastLake Business Center and EastLake Village Center

These two neighborhoods are analyzed together because of their combination on the proposed Tentative Map. The Business Center, located in the north and northeast portions of the project site, encompasses employment park (industrial) Parcels E-1 through E-11, an 8.5-acre park, and 78.7 acres of open space. The employment park use is comprised of 153.7 acres.

The Village Center includes a residential area of 18 acres with 405 permitted dwelling units and an average target density 22.5 du/acre. The Center also includes 34.2 acres of commercial/office space and 20.6 acres of open space. Even though configuration of uses in the Village Center has been changed, the SPA still retains the intent of the Planned Community regulations and General Development Plan through a mixed use combination. The intent of the Village Center concept is accurately reflected in the provision of a conceptual design study for the area in the SPA.

The employment park (industrial) and commercial/office land uses for the Village Center and Business Center neighborhoods basically comply with the General Development Plan, except for a different configuration. The Site Utilization Plan configuration, however, ensures compatibility of the Centers with surrounding residential development and the circulation system, more so than the General Development Plan. In keeping with the intent of Planned Community regulations, the Site Utilization Plan and Tentative Map provides for industrial and commercial/office uses in close proximity to major roads (SR125 and Telegraph Canyon Road) with good access to nearby residential development. The Village Center is situated at a major intersection (SR125 and Telegraph Canyon Road) to provide adequate commercial facilities of the type needed to serve both the residential and industrial development.

The circulation system proposed in the Site Utilization Plan and Tentative Map differs from the General Development Plan, yet improves upon and exceeds the requirements of the Planned Community Zone. In comparison to the General Development Plan, which designates collector streets connecting with East "H" Street and Telegraph Canyon Road, the proposed Site Utilization Plan and Tentative Map also proposes a connecting street to SR125 (and the EastLake Shores residential neighborhood), another connection at Telegraph Canyon Road, and two future connections to East "H" Street northeast of the property boundary. Two industrial streets and five collector streets will serve the Village Center and Business Center. It is anticipated that the number of streets will be adequate to carry expected traffic.

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The residential, open space and park uses projected for the Village Center and Business Center comply with Planned Community regulations emphasizing a mixture of land uses. The park and open space serves to buffer differing land uses and roadways, providing the community with a sense of harmony. The residential development proposed in the Site Utilization Plan has a lower average density (22.5 du/acre) than the 35.0 du/acre designated in the General Development Plan, and no impacts are expected.

EastLake Greens

The EastLake Greens neighborhood, located in the southern portion of the project site south of Telegraph Canyon Road, will be the subject of a Supplemental SPA Plan for more precise planning. The EastLake Greens neighborhood generally encompasses residential parcels R-16a and R-16b, a 14.9-acre park, and 32.6 acres of open space. The residential parcels include a total of 1341 permitted dwelling units on 328.5 acres of land, with an average target density of 4.1 du/acre. The residential density of this neighborhood is less than that which is designated in the General Development Plan, which ranges from 4.5 to 20.0 du/acre.

The high school designated in the General Development Plan for the EastLake Greens neighborhood is proposed to be constructed offsite to the south of the property in the future EastLake development. The proposed 14.9-acre park will be constructed adjacent to the future high school grounds and will include playing fields, courts, a playground and picnic facilities. The open space will buffer major transportation routes (SR125 and Telegraph Canyon Road) and the existing water tank reservoir from the planned residential development.

The circulation system planned for EastLake Greens will be detailed in the Supplemental SPA Plan. As currently proposed in the Site Utilization Plan, the circulation system includes an outlet onto Telegraph Canyon Road and offsite to the south, complying with the General Development Plan and supplying access to the employment park and commercial development neighborhoods.

The SDG&E 230 kV transmission line, a portion of a SDG&E 250-foot easement, and the Second San Diego Aqueduct which cross the EastLake project site require special attention to assure that they comply with land use regulations in buffering from adjacent residential and school uses. The 230 kV SDG&E line is buffered from the surrounding medium-density residential and employment park communities by land designated as open space (including manufactured slope banks) and the circulation system. The 250-foot SDG&E easement is located in area designated as open space in the

northwest corner of the project site. The Aqueduct is buffered by open space, manufactured slope banks and East "H" Street, which separates it from surrounding low-to medium-density residential development (Figure 3-3). Because of the design measures instituted in the SPA Plan, the land use impact of the presence of transmission line easements and an aqueduct easement on the site is not considered significant.

The primary arterial corridors of East "H" Street, SR125 and Telegraph Canyon Road are also buffered from surrounding land use of low- to medium-density residential, employment park and office/commercial by open space designations, composed primarily of landscaped slope banks (Figure 2-4 and Figure 3-3).

Overall, the internal site design of EastLake I provides for a balanced community which incorporates land use features with a mix of industrial, commercial, residential, open space and educational uses. The activity centers, with industrial, commercial and open space uses, have been designed to separate individual neighborhoods while providing convenient public access to those facilities and maintaining a community structure, tying together the diverse elements of the development.

The proposed Sectional Development Plan complies with requirements of the Planned Community Zoning adopted for the EastLake I community. The plan supplies a series of diagrams and text to provide a specific framework in which individual project site plans can be considered. Basic components required for and provided by this Sectional Development Plan include plans and programs for site utilization, landscaping, grading, utilities, traffic, noise, public facilities, recreation, open space, implementation, and design concepts including signage, trails, lighting, fencing, and special studies for Village Center, Scenic Highways, Lake Design and School/Park design. The proposed Sectional Development Plan provides further analysis not specified in the Planned Community regulations, including a geologic study and energy conservation plan. The standard set up in the Planned Community regulations for each of the studies have been complied with or exceeded in the submitted Sectional Development Plan.

As the land use designations for the EastLake I SPA vary from the General Development Plan in terms of distribution, but are in compliance with the intent of the Planned Community Regulations by type and intensity of land use, an Amendment to the General Development Plan is proposed to avoid any significant land use impacts associated with the EastLake I development.

3.1.3 Mitigation Measures

Implementation of the Planned Community District Regulations for EastLake I will serve to avoid the potential for impacts associated with land use. Because

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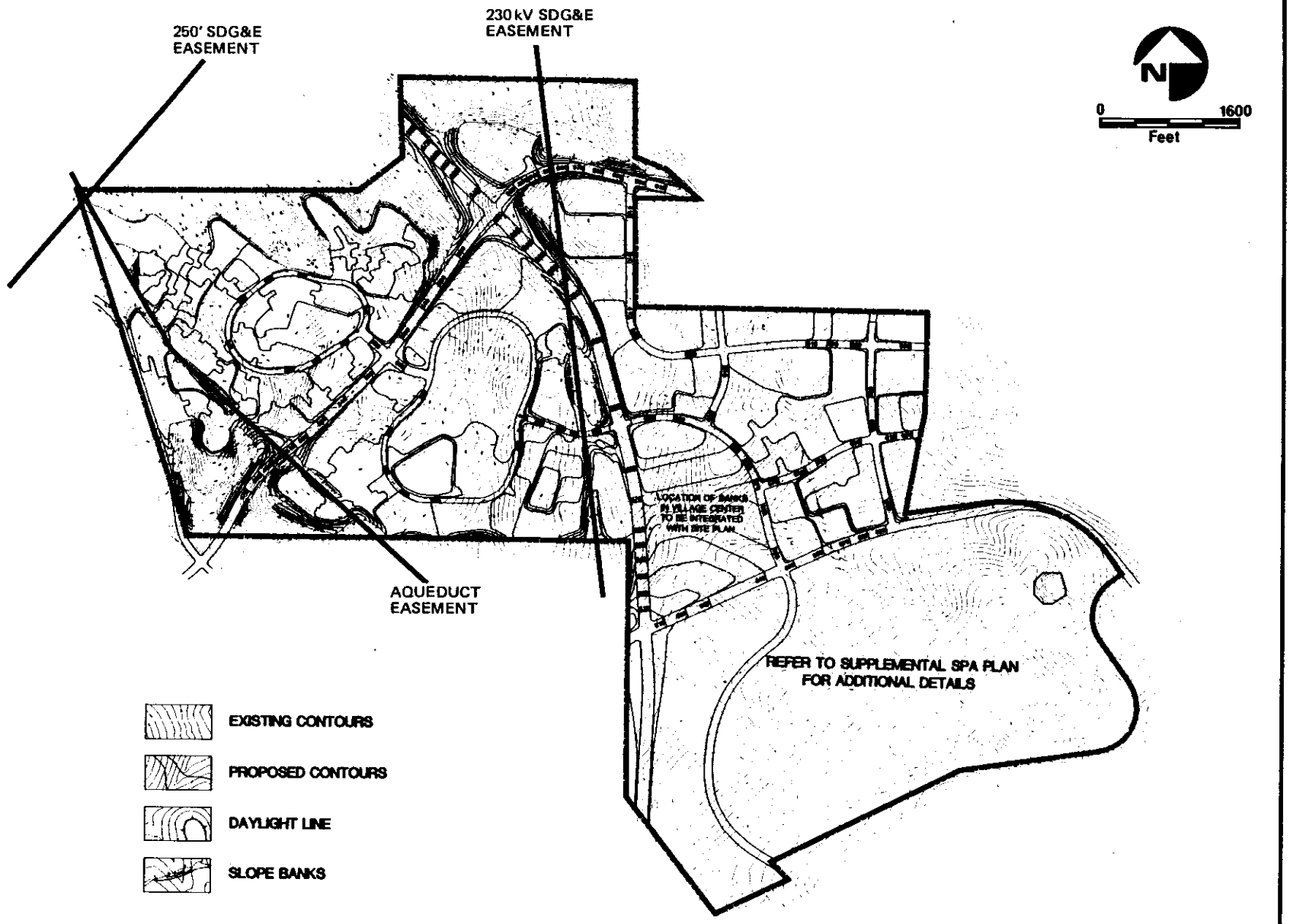

SOURCE: Cinti & Associates, 7/13/84.

EastLake I Grading Plan

FIGURE 3-3

of the extensive design measures instituted to avoid land use impacts, no further mitigation measures are considered necessary.

3.1.4 Analysis of Significance

The land uses outlined in the proposed SPA Plan comply with land use designations of the Planned Community Regulations and General Development Plan. The SPA Plan's extensive design measures preserve the continuity of a well-balanced community with a variety of land uses. No significant land use impacts are expected to occur with complete implementation of the SPA Plan.

3.2 TRANSPORTATION AND CIRCULATION

During preparation of the General Plan Amendment for the EastLake Community, adopted in February 1982, a traffic analysis was conducted by Stephen George and Associates. Another study for EastLake I was prepared for the developer in March 1984 by Urban Systems Associates, Inc., which included a suggested improvement phasing plan. For purposes of this EIR, Willdan Associates has completed a study to identify and evaluate the impacts the SPA will have on transportation and circulation in the area. Based on the findings of the analysis, mitigation is suggested to accommodate the impacts posed by the proposed EastLake I project. The Willdan report is summarized below and is on file with the City of Chula Vista Planning Department as Appendix A for EastLake I.

Concurrent with EastLake I development are several other large developments in the eastern portion of Chula Vista. To help evaluate and plan for the traffic generated by these developments, the City of Chula Vista is utilizing a San Diego Association of Governments (SANDAG) travel forecasting model to evolve a transportation study projecting the distribution of traffic for existing conditions plus proposed projects. The model generates trips from land use information and distributes them through the network. Information was also generated for the assignment of traffic due to the development of EastLake I. In preparing this traffic analysis, the SANDAG model information was utilized.

3.2.1 Existing Conditions

The City of Chula Vista is modifying the Circulation Element of its General Plan through use of the SANDAG model. In addition, the City has forecasted an interim buildout of the circulation system. This interim condition is expected to occur in 1995, at which time EastLake I is projected to be complete and all roads in the project area are expected to be built out to their ultimate width (with the exception of SR125).

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SR54, South Bay Freeway, located 3 miles northwest of the EastLake I northern project boundary, is currently a four-lane divided expressway which carries 29,800 Average Daily Trips (ADT) between I-805 east to Reo Drive and 17,800 ADT east to Worthington (Figure 3-4). The Circulation Element calls for SR54 to be upgraded to freeway standards with an interchange planned at the proposed SR125 extension.

I-805, located approximately 5 miles west of EastLake I, is an eight-lane freeway which currently carries 85,300 ADT between SR54 and East "H" Street and 69,700 ADT between East "H" Street and Telegraph Canyon Road. There are interchanges at SR54, Bonita Road, "H" Street/East "H" Street, and Telegraph Canyon Road.

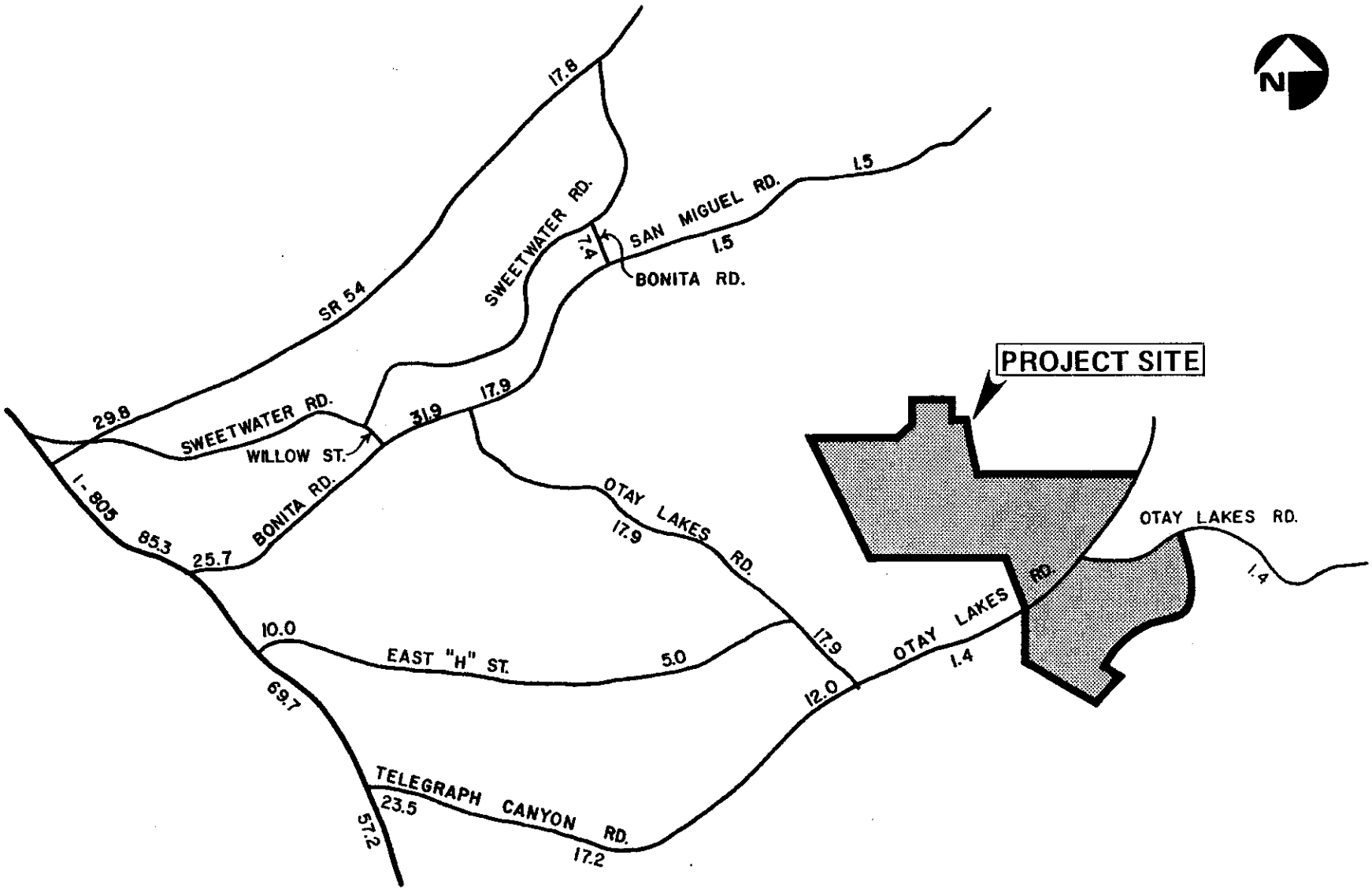
Telegraph Canyon Road varies from a six-lane divided road east of I-805 to two lanes west of Otay Lakes Road and carries from 23,500 ADT east of I-805 to 12,000 ADT west of Otay Lakes Road. This road is planned to be a six-lane prime arterial from I-805 to Otay Lakes Road. Additionally, the easterly segment of Otay Lakes Road is to be renamed Telegraph Canyon Road and this portion is planned as a six-lane prime arterial to the proposed extension of SR125, then a four-lane prime arterial through the project.

Otay Lakes Road varies from two to four lanes and carries 17,900 ADT from Bonita Road south to Telegraph Canyon Road and 1400 ADT from Telegraph Canyon Road east to Rutgers. This easterly section is to be renamed "Telegraph Canyon Road". The northerly section is planned to be a four-lane major road.

East "H" Street varies from two to four lanes and carries from 10,000 ADT east of I-805 to 5000 ADT west of Otay Lakes Road. East "H" Street is planned to be a six-lane prime arterial from I-805 east to Otay Lakes Road, a four-lane prime arterial east to the proposed extension of SR125, and a four-lane major road east across the project. Portions are currently being widened in conjunction with development projects.

SR125 currently is not constructed. It is proposed to be extended from Highway 94 south as a four-lane prime arterial initially. However, it will ultimately be a six-lane prime arterial or a freeway. The ultimate status of SR125 is dependent upon the approvals of proposed land uses on the undeveloped property east of the project site in both the City of Chula Vista and the City of San Diego. SR125 will provide a major north/south link for the EastLake I project.

Bonita Road is a four-lane divided roadway which currently carries 25,700 ADT east of I-805, 31,900 ADT east of Willow Road, 17,900 ADT east of Otay Lakes



SOURCE: Sandag 1983, Average Weekday Traffic Volumes

Existing Traffic Flow on Major Streets and Freeways in Project Vicinity

FIGURE 3-4

WESTEC Services, Inc.

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Road, and 7400 ADT north of San Miguel Road. Bonita Road is shown as a four-lane major road in the "Circulation Element".

Transit Requirements

At full buildout, EastLake I would result in an increase in population and employment in the project area. EastLake I is located in the east Chula Vista transit service area which is currently served by three Chula Vista Transit (CVT) routes. CVT Route 703 services the residential area east of I-805 and south of East J Street, and the Community Hospital of Chula Vista. CVT Route 704 serves the residential area between East Naples Street and Telegraph Canyon Road, Southwestern College, and the Southwestern College Estates residential area. CVT Route 705 serves the Bonita area, operating along Otay Lakes Road, Bonita Road, Sweetwater Road and Bonita Mesa Road. This route serves Southwestern College, Bonita Vista High School and Bonita Vista Junior High School.

3.2.2 Impacts

As indicated in Appendix A, street segment volumes are compared to the Average Daily Trips (ADT) of the design standards to evaluate impacts. Intersections are considered to be critical areas of interest. As indicated on Table 3-3 below, the level of service (LOS) at which an intersection operates is an indication of the delay which can be expected:

Table 3-3

LEVEL OF SERVICE (LOS) DEFINITIONS

Level of Service	Operating Conditions
A	Free flow; speed controlled by driver's desires, speed limits, or physical roadway conditions.
B	Stable flows; operating speeds beginning to be restricted; little or no restrictions on maneuverability from other vehicles.
C	Stable flow; speeds and maneuverability more closely restricted.
D	Approaches unstable flow; tolerable speeds can be maintained, but temporary restrictions to flow cause substantial drops in speed. Little freedom to

Table 3-3

LEVEL OF SERVICE (LOS) DEFINITIONS (Continued)

Level of Service	Operating Conditions
	maneuver, comfort and convenience low.
E	Volumes near capacity; flow unstable; stoppages of momentary duration. Ability to maneuver severely limited.
F	Forced flow; low operating speeds, volumes below capacity, queues form.

LOS C is the desired level of service at intersections in urbanized areas. A less desirable LOS may be considered adequate as an interim condition provided future patterns due to development shift the volumes to effect a more desirable level of service.

Street Segments

From SANDAG cumulative volume flow maps for the years 1995 and 2005, summarized on Figure 3-5 and Table 3-4, it is evident that in 1995, several street segments will approach or exceed design ADT. The cumulative analysis indicates a large number of streets in the East Chula Vista area will need to be constructed or widened to accommodate the anticipated growth. EastLake I, however, will not impact all of these streets. Projections for the year 2005 include all of EastLake I and II plus substantial additional urbanization and a different circulation network.

As indicated below, there will be impacts concerning traffic if the design ADT is exceeded or approached on the project cumulative level. In reviewing this information, it is clear EastLake I will create the majority of traffic on the streets within the project and on SR125 between the project and San Miguel Road, and East "H" Street between the project and Otay Lakes Road. Adding the existing traffic to the project traffic and comparing this with the City's design standards, several existing streets will have to be expanded. The proposed project traffic will also necessitate a minimum of two lanes for SR125 north of San Miguel Road and a minimum of four lanes on Telegraph Canyon Road (including East Otay Lakes Road) west of the project. The project will add minor amounts of traffic to other streets in the area. This traffic, however, will not overburden any existing street and will generally be less than 10 percent of the total traffic on those roads.

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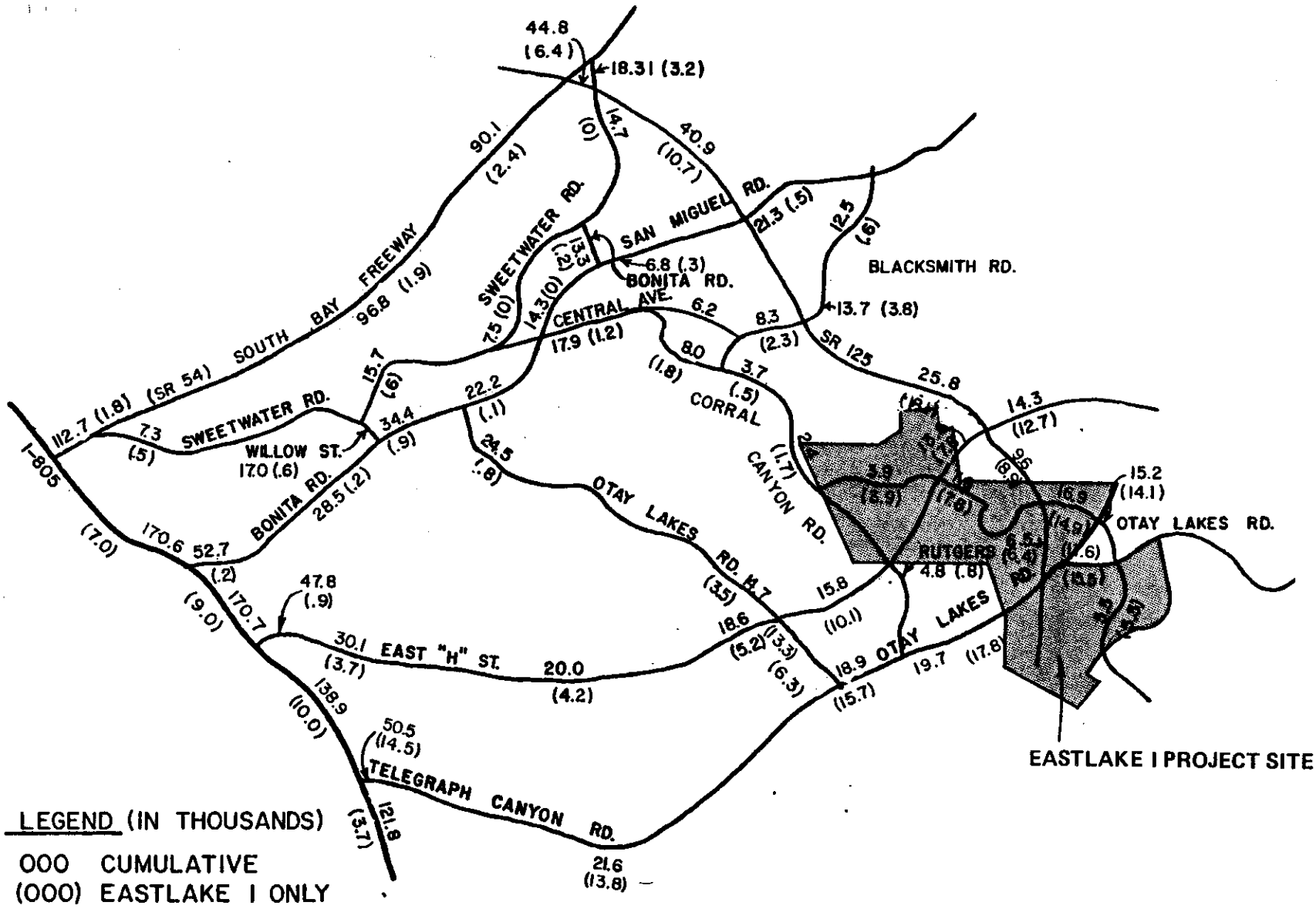

Source: SANDAG 1983, Average Weekday Traffic Volumes

Projected Traffic Flow for 1995 on Major Streets and Freeways in Project Vicinity

FIGURE 3-5

Table 3-4

EASTLAKE I STREET SEGMENTS WITH PROJECTED ADT

Street	Reference	Class	Design ADT	1995 Cumm. Total	1995 EL I Assign.	2005 Cumm. Total
Otay Lakes Road	South of Bonita Road	4M	25k	24.5k	.8k	24.1k
Corral Canyon Road	South of Central Avenue	4C	10k	8.0k	1.8k	9.9k
SR125	South of SR54	4PA	30k*	40.9k	10.7k	**
	North of East "H" Street	4PA	30k*	25.8k	18.1k	**
East "H" Street	East of I-805	6PA	50k	47.8k	.9k	48.3k
	East of SR125	4M	25k	14.3k	12.7k	35.9k
Telegraph Canyon Road	East of I-805	6PA	50k	50.5k	14.5k	42.4k
	East of SR125	4PA	30k*	17.6k	15.5k	65.1k
San Miguel Road	East of SR125	2C	5k	21.3k	.5k	
		4C	10k			37.7k***

*Street standards did not provide for 4PA; City of San Diego standards show 4PA = 30k ADT.

**2005 shows SR125 to be a freeway, so 30k ADT is not a comparison.

***San Miguel Road is projected to be a two lane collector in 1995 and a four lane collector in 2005.

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Project Level Impacts

Project level impacts occur when the design ADT is exceeded or approached, and the majority of the exceedance is contributed by the EastLake I project. Significant project level impacts will occur with the following street segments:

- SR125, north of East "H" Street: EastLake I contributes 18.1 k (70 percent) to a total 25.8 k for 1995, which approaches the design ADT of 30 k.
- SR125, south of SR54: EastLake I contributes 10.7 k (26 percent) to a total 40.9 k for 1995, which exceeds the design ADT of 30 k.
- East "H" Street, east of SR125: EastLake I contributes 12.7 k (35 percent), to a total 35.9 k for 2005, which exceeds the design ADT of 25 k.
- Telegraph Canyon Road, east of I-805: EastLake I contributes 14.5 k (29 percent) to a total 50.5 k for 1995, which exceeds the design ADT of 50 k. EastLake's contribution to the total 42.4 k for 2005 would be 34 percent.

Cumulative Level Impacts

Cumulative level impacts occur when the design ADT is exceeded or approached, and the majority of the exceedance is contributed by other development projects in addition to EastLake I. The following cumulative impacts will occur with street segments approaching or exceeding the design ADT.

- San Miguel Road, east of SR125: EastLake I only contributes 0.5 k (less than 3 percent) to a total 21.3 k for 1995, which exceeds the design ADT of 5 k (10 k for 2005). EastLake's contribution to the total 37.7 k for 2005 would be less than 2 percent.
- Telegraph Canyon Road, east of SR125: EastLake I only contributes 15.5 k (24 percent) to a total 65.1 k for 2005, which exceeds the design ADT of 30 k.

The following cumulative impacts will occur with three street segments approaching the design ADT:

- Corral Canyon Road, south of Central Avenue (through the project site): EastLake I contributes 1.8 k (22 percent) to a total 8.0 k for 1995, which approaches the design ADT of 10 k. EastLake's contribution to the total 9.9 k for 2005 would be 18 percent.

- Otay Lakes Road, south of Bonita Road: EastLake I only contributes 0.8 k (3 percent) to a total 24.5 k for 1995, which approaches the design ADT of 25 k. EastLake's contribution to the total 24.1 k for 2005 would also be 3 percent.
- East "H" Street, east of I-805: EastLake I only contributes 0.9 k (2 percent) to a total 47.8 k for 1995, which approaches the design ADT of 50 k. EastLake's contribution to the total 48.3 k for 2005 would be less than 2 percent.

Intersections

The intersections felt to be subject to the greatest potential impact were analyzed using the SANDAG model's cumulative turning movements for 1995 volumes. The analysis consisted of Intersection Capacity Utilization (ICU) calculations which indicate the level of service expected. A summary of the analysis appears on Table 3-5.

As indicated on Table 3-5, no intersections analyzed fall below LOS C. However, an area of particular concern is the northerly section of SR125 in the vicinity of San Miguel Road. The Circulation Element identifies this road as a four-lane prime arterial. Four lanes would not be adequate as an interim condition because no configuration, other than the additional through lanes, can improve this intersection's level of service beyond D. The EastLake I assignment is approximately one-half of the total cumulative northbound and southbound traffic on SR125 at this intersection (Table 3-4). Consideration should be given to allowing a less than desirable Level of Service for an interim period since this roadway will be upgraded to a freeway and the improvements to be built would have to be removed at that time.

Phasing Plan

As previously indicated, the developer has submitted a proposed transportation phasing plan. This plan, prepared by USA Inc., identifies annual street improvements necessary to reach the 1995 "Circulation Element" conditions in a manner that provides adequate capacity as new projects come on line.

The following additional findings are included as a result of this analysis:

- As indicated previously, some of the roadways indicated on the Circulation Element will be undersized. Since the phasing plan resulted in the "Circulation Element" condition in 1995, it should be revised to reflect the necessary street widenings. It also indicates the capacities of the roads may be slightly overstated. It would, therefore, be

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Table 3-5

EASTLAKE I INTERSECTIONS PROJECTED LOS

Intersection	Class	Final Configuration	Peak Hour Level of Service (LOS) A.M.	P.M.
Otay Lakes Road	4M	4 thru lanes Double LT lanes		
and			C	B
Bonita Road	4M	4 thru lanes Free RT lane E/B		
Otay Lakes Road	4M	4 thru lanes		
and			B	B
East "H" Street	6PA	6 thru lanes		
Otay Lakes Road	4M	4 thru lanes		
and			A	A
Telegraph Canyon Road	6PA	6 thru lanes		
SR125	4PA*	6 thru lanes* Double LT lanes S/B		
and			B	C
San Miguel Road	2M/2C*	4 thru lanes* Free RT lane W/B		
SR125	4PA	4 thru lanes Double LT lanes S/B		
and			B	C
East "H" Street	6PA	6 thru lanes Double LT lanes E/B		
SR125	4PA	4 thru lanes		
and			A	A
Telegraph Canyon Road	6PA	6 thru lanes		

*The "Circulation Element" of Chula Vista designates these roadways as 4PA and 2M/2C respectively. In order to allow the intersections to operate at an acceptable level of service, it was necessary to add the two thru lanes (Willdan, 1984).

appropriate to be somewhat conservative and reduce the allowable capacity on each roadway in the proposed Phasing Plan.

- Because of its general nature, the phasing plan did not include turning movements or intersection analyses. As shown in this report, some intersections will have to be widened to provide additional turn lanes (Otay Lakes Road and Bonita Road; SR125 and San Miguel Road; SR125 and East "H" Street). This type of analysis cannot be incorporated into a phasing plan with a high level of accuracy. There should, however, be a provision in the plan to allow the City to require additional intersection improvements as they determine necessary.
- Finally, the phasing plan identifies annual improvements based on the construction of approximately 1400 dwelling units. This is considered to be too many units to be of practical use in assigning improvements to particular subdivisions. The plan should be revised to identify improvements needed with smaller blocks of dwelling units. It is recommended that blocks of 300 to 500 dwelling units be used.

Transit Requirements

The increase in population and employment projected by the EastLake I development will necessitate an extension of Chula Vista Transit services at full build-out. Provisions for public transit facilities to serve the extended service will be required prior to final approval of the SPA and tentative maps.

3.2.3 Mitigation Measures

In this analysis, both cumulative and project level impacts have been identified. It is anticipated that an overall capital improvement program will be developed in which all study area developers will participate on a proportionate basis. Provided this program builds out the "Circulation Element" with the following additions, no significant project level traffic impacts will be expected through the year 2005. Existing and proposed roadway design with the following improvements is depicted on Figure 3-6.

- Construct SR125 as an eight lane freeway. Caltrans has indicated that a four-lane intermediate configuration on SR125 is acceptable, with an ultimte configuration consisting of eight lanes, diamond interchanges and a truck lane upgrade from the Sweetwater River Valley.
- Construct East "H" Street as a six lane prime arterial east of SR125.
- Construct Telegraph Canyon Road as a six lane prime arterial east of SR125.

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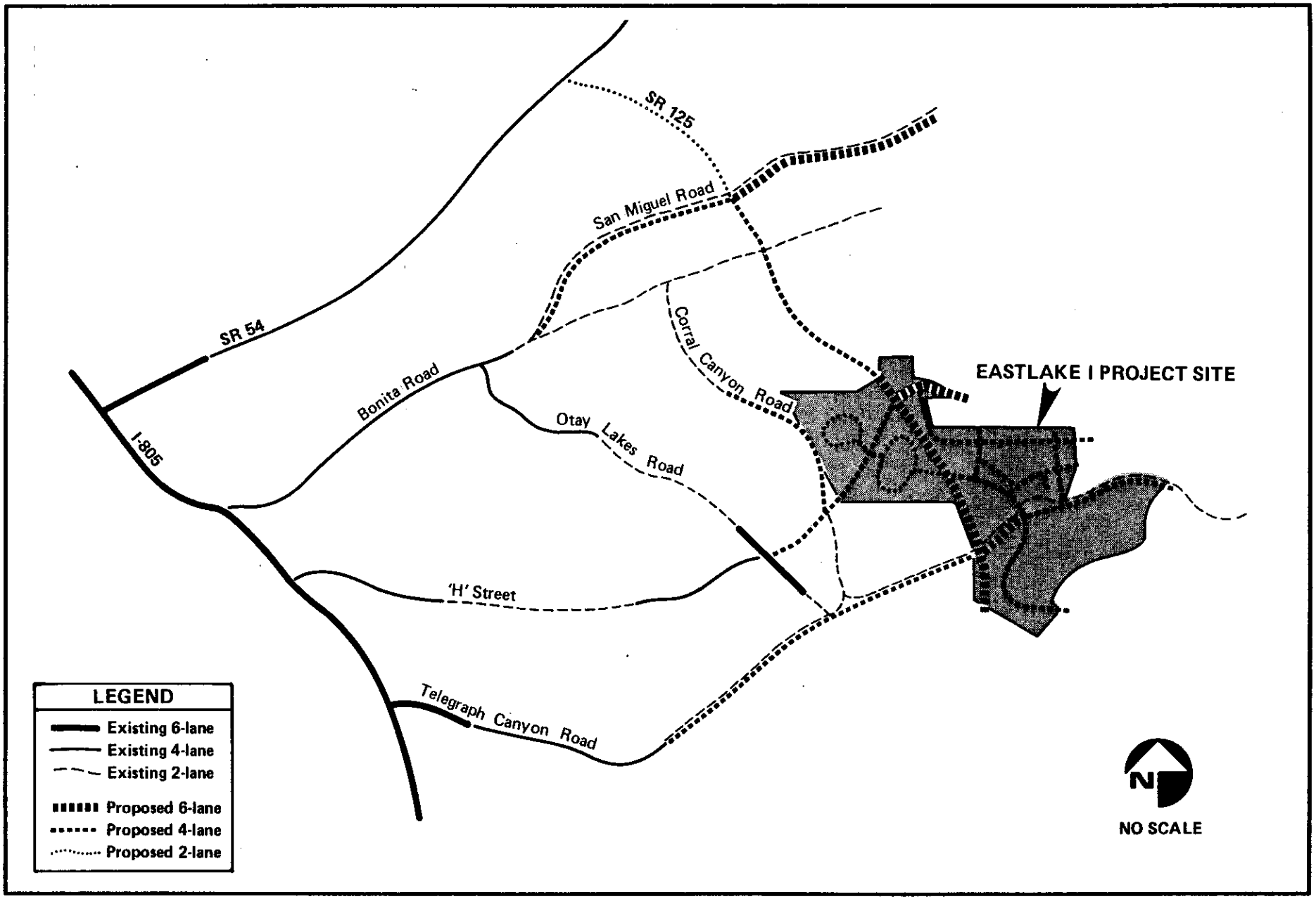

Existing and Proposed Roadway Design in EastLake I Project Site and Vicinity

FIGURE 3-6

- Construct San Miguel Road as a six lane prime arterial east of SR125.
- Construct San Miguel Road as a four lane major roadway west of SR125.

All of the land in the project area may not develop in an ideal pattern allowing implementation of the "Circulation Element" improvements in time to accommodate development. To address this impact, the following improvements are recommended for the EastLake I project:

- Construct all roads within the project boundaries as shown on the proposed "Circulation Element." The transporation phasing program of the SPA Plan's Public Facilities Financing Plan will allow implementation of the "Circulation Element" improvements in a timely manner.
- Dedicate right-of-way to expand the roads within the project to the sizes described in the first three items above.
- Widen Telegraph Canyon Road to a minimum of four lanes offsite to I-805.
- Construct a minimum of four lanes on East "H" Street offsite to Otay Lakes Road.
- Construct SR125 as a four lane major street between the project and San Miguel Road with widenings at each intersection to six lanes.
- Construct SR125 as a two lane major between San Miguel Road and SR54.
- Install traffic signals on all streets required to be constructed at the intersections of collector streets, major roads and prime arterials with each other, plus locations where local collectors intersect major roads or prime arterials.

Transit Requirements

Planned Community Regulations for EastLake I call for the following provisions for public transit at full buildout:

- A provision for bicycle storage facilities in accordance with standards determined to be appropriate by the City of Chula Vista.
- A provision providing for preference parking areas at major use facilities for ride-sharing parking.
- A program to implement private employer transportation programs.
- The construction and dedication of a transportation center designed to the standards approved by the City Council.

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- Bus turnouts shall be incorporated in the street designs for the major intersections and benches shall be located subject to the approval of the City Council.
- An analysis to determine the need for funds to subsidize the line haul transit operations in EastLake I.

A plan for alternative transit provisions has been designed, including pedestrian and bicycle trails, as depicted on Figure 3-7.

3.2.4 Analysis of Significance

The Traffic analysis indicates that a number of streets in the East Chula Vista area will need to be constructed or widened to accommodate cumulative growth from projected area developments, including San Miguel Road, SR125, East "H" Street, Telegraph Canyon Road and Corral Canyon Road. EastLake I, however, will not impact all of these streets. EastLake I will create the majority of traffic on the streets within the project and on SR125 between the project and San Miguel Road, and East "H" Street between the project and Otay Lakes Road. Several existing streets will need to be expanded both onsite and offsite as indicated on Figure 3-6 and Table 3-6. With implementation of the mitigation measures as provided, traffic impacts will be reduced to a level of insignificance.

3.3 SERVICES/UTILITIES

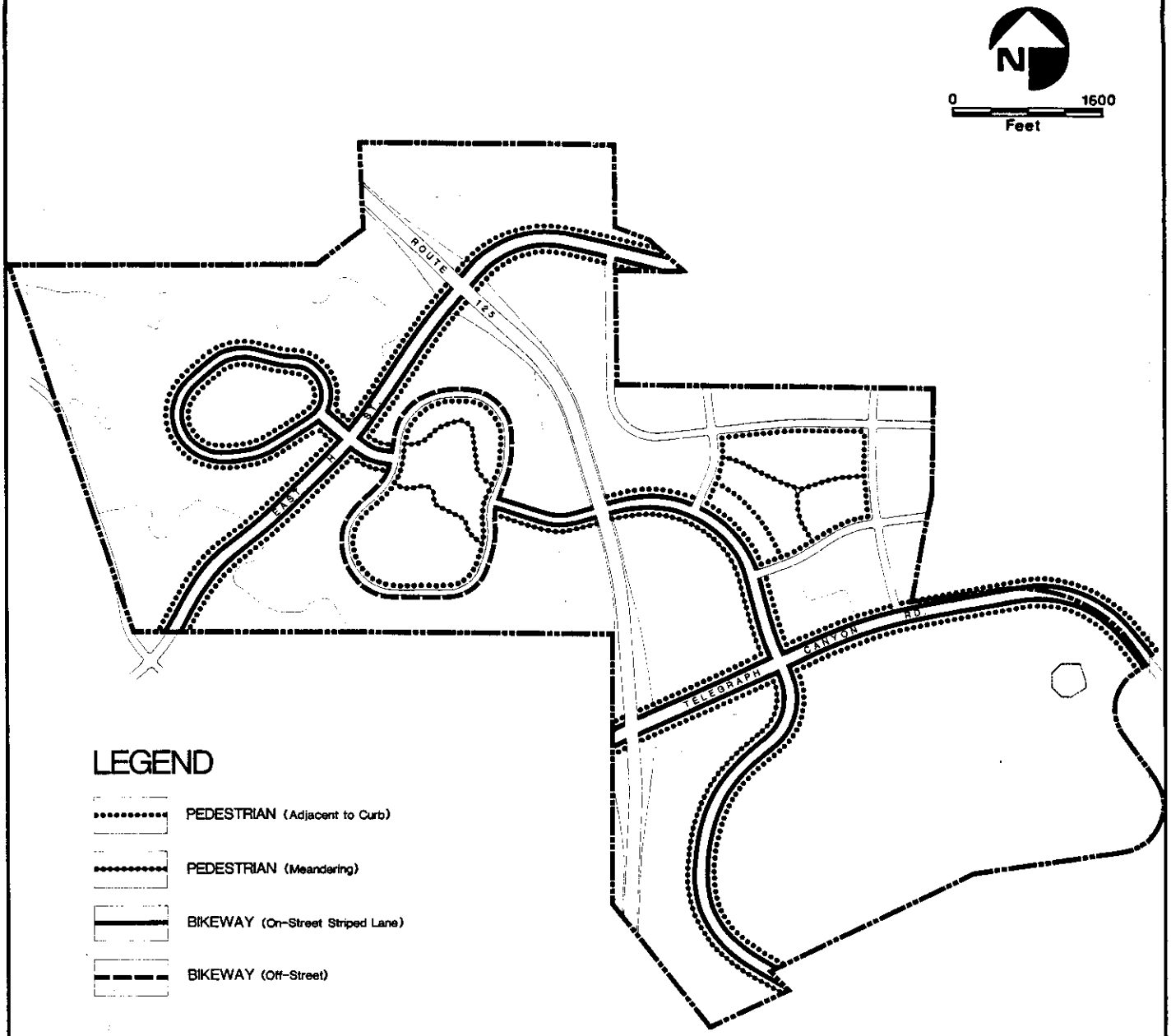
3.3.1 Water Availability

3.3.1.1 Existing Conditions

The project site does not currently generate a requirement for water. The property is located within the service area of the Otay Water District (OWD), one of 24 member agencies of the San Diego County Water Authority (CWA). The CWA receives water from the Colorado River and the California Aqueduct via the Metropolitan Water District (MWD).

Imported water makes up 90 percent of San Diego County's annual water demand of 500,000 acre feet per year. Eighty-five percent of San Diego's annual demand is used for municipal purposes, the remaining 15 percent is used for agricultural production (Michaels, 1984).

In 1985, the Central Arizona Water Project will begin to divert Arizona's entire allocated share of Colorado River water into that State. Total diversion will ultimately take place over a period of 3 to 4 years as additional facilities are constructed. This will reduce MWD's current water intake by 600,000 acre feet per year. A number of alternatives are being proposed to compensate for the loss in Colorado



SOURCE: Cinti & Associates, 7/5/84

EastLake I Trails Plan

FIGURE 3-7

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Table 3-6

EASTLAKE I AFFECTED STREETS

Street	Location	Existing Class	Existing Cap.	EIR Proposed Class	EIR Proposed Cap.	1995 Cum. Vol	EastLake ADTs	1995 Cum. Vol./ EIR Prop. Capacity	Remarks
SR125	S/O SR54	Not Blt	0	2C*	5,000	44,800	6,400	8.96	Over capacity
SR125	N/O E. H Street	Not Blt	0	4M	25,000	25,800	18,100	1.03	Over capacity
Corral Canyon Road	S/O Central Avenue	2C	5,000	4C	10,000	8,000	1,800	0.80	
Otay Lakes Road	S/O Bonita Road	4M	25,000	4M	25,000	24,500	800	0.98	At capacity
Otay Lakes Road	N/O E. H Street	2C	5,000	4M	25,000	14,700	3,500	1.47	
East H Street	E/O I-805	4M	25,000	6PA	50,000	47,800	900	0.96	At capacity
East H Street	E/O SR125	Not Blt	0	4M	25,000	14,300	12,700	0.54	
East H Street	E/O Paseo Del Rey	2C	5,000	4M	25,000	20,000	4,200	0.80	
Telegraph Canyon Road	E/O I-805	6PA	50,000	6PA	50,000	50,500	14,500	1.01	Over capacity
Telegraph Canyon Road	E/O SR125	2C	5,000	4PA	30,000	17,600	15,500	0.59	
Telegraph Canyon Road	W/O SR125	2C	5,000	4M	25,000	19,700	17,800	0.79	
San Miguel Road	E/O SR125	2C	5,000	6PA	50,000	21,300	500	0.43	
San Miguel Road	W/O SR125	2C	5,000	4M	25,000	6,800	300	0.27	

*Size necessary to serve EastLake I only.

Source: City of Chula Vista - Traffic Division, September 12, 1984.

River water. The alternatives will be submitted as bills before the California legislature in the first half of 1985. If approved, these projects would compensate for the majority of the water lost by the Central Arizona Project and the CWA will be able to meet the needs of its member agencies through the year 2000. Without the additional supply, water shortages could occur as early as 1994 (Michaels, 1984).

The CWA's 69-inch Second San Diego Aqueduct traverses the western portion of the project site as indicated on Figure 3-1, discharging into the Lower Otay Reservoir southeast of the project site. OWD's facilities in the project vicinity include Reservoir 22-1, a 3 million gallon reservoir located within Parcel R-16b in the southeastern margin of EastLake I. The 10.4 million gallon Patzig Reservoir and pump station is located offsite, southwest of the site. Several 16- to 24-inch pipelines connect these facilities and provide water to adjacent communities located within OWD's Improvement District 22. In addition, a 3 million gallon reservoir and pump station has been approved for development west of the site. Figure 3-8 illustrates water facilities in the project vicinity.

Onsite elevations lower than 570 feet above mean sea level (MSL) are located in the 711-foot water pressure zone. Water is transported to offsite locations in the 711-foot zone via gravity flow. A new pressure zone, the 930-foot zone, is proposed to serve elevations above 570 feet above MSL. A pump system would be required to transport water within the 930-foot pressure zone.

3.3.1.2 Impacts

Based on the water consumption factors contained in Table 3-7, and the land use allocations outlined in Section 3.1, Land Use, the proposed project would generate a requirement for approximately 2,467,380 gallons of water per day. OWD anticipates no problems in supplying the proposed project with water provided that certain conditions are met (Arroyo, 1984). The following paragraphs outline the methods that have been negotiated between OWD and the applicant to provide water to the project site. These provisions are further described in the Water Master Plan (Lowry & Associates, 1984a), and the draft Public Facilities Finance Plan (McKinley Associates, Inc., 1984).

In order to provide water to onsite development, the project site will be annexed to OWD's Improvement District 22. Development at elevations lower than 570 feet above MSL will receive water by gravity flow from the existing 711-foot pressure zone. The new pumped 930-foot pressure zone will serve onsite development at elevations greater than 570 feet above MSL.

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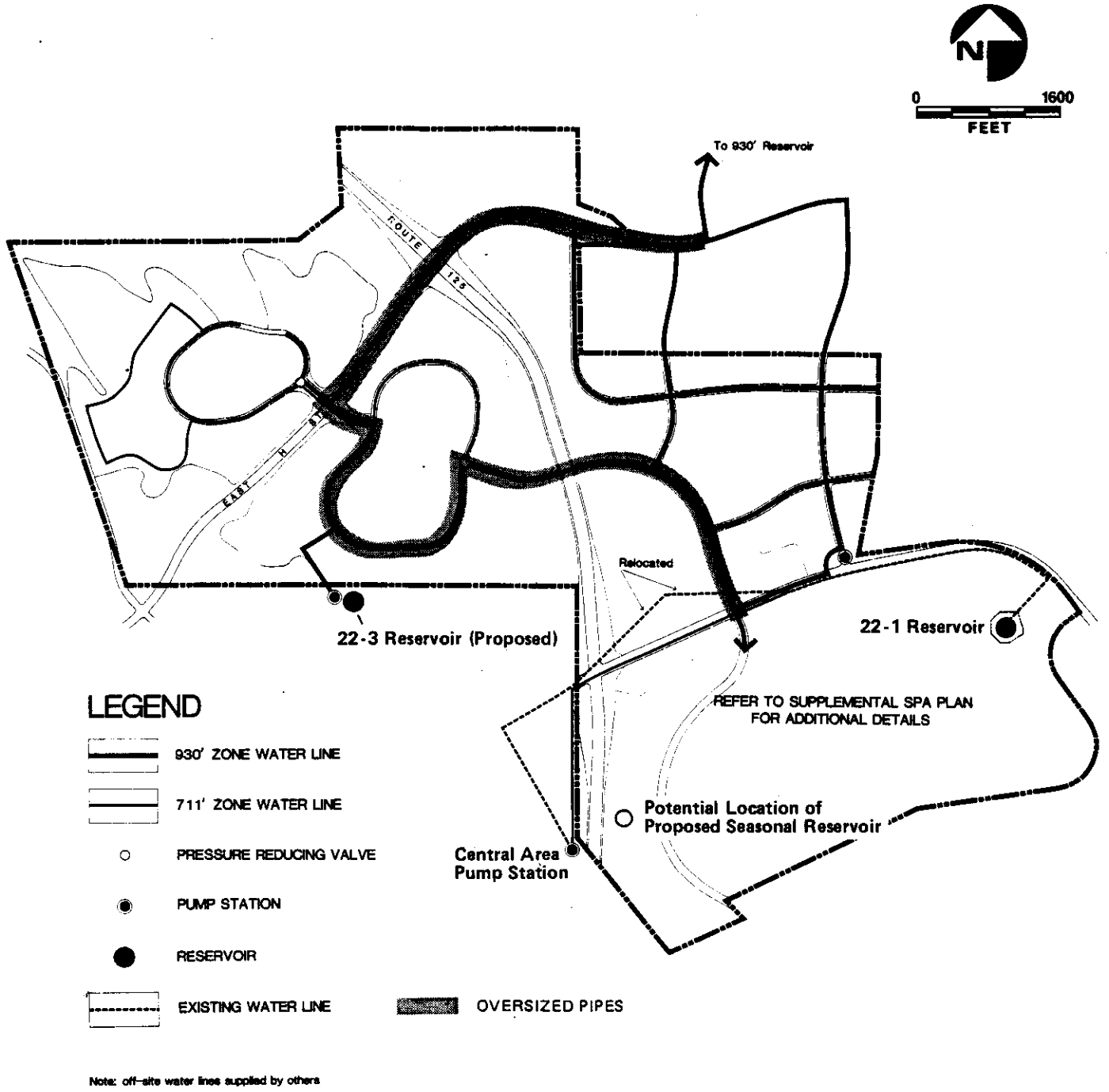

SOURCE: Cinti & Associates, 7/5/84

EastLake I Water Plan

FIGURE 3-8

Table 3-7

HORIZON YEAR WATER CONSUMPTION

Land Use	Amount	Consumption Rate (gallons/day)	Total (gallons/day)
Residential			
Parcels R-1 and R-2	104 d.u.	1,000 per d.u.*	104,000
Parcels R-3 through R-16	9,135 residents	180 per capita	1,644,300
Employment Park	153.7 acres	3,500 per acre	537,950
Village Center (net)	52.7 acres	2,700 per acre	142,290
Parks (net landscaped)	6.0 acres	2,679 per acre	16,074
School	10.2 acres	2,232 per acre	22,766
TOTAL:			2,467,380

Source: Derived from Lowry and Assoc., 1984.

*The residential water consumption rate for parcels R-1 and R-2 was estimated to be 1,000 gallons/d.u./day due to large anticipated irrigation demands for these parcels.

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Water will be supplied through three reservoirs which receive water from the CWA Aqueduct. A 2 million gallon reservoir will be constructed adjacent to the existing 3 million gallon 22-1 reservoir in the southeast margin of the site (Figure 3-8). This reservoir will be used as a forebay to pump to the 930-foot pressure zone. Utilization of this reservoir will require increasing the capacity of Otay's Central pump station from 5000 gallons per minute (gpm) to 7500 gpm to provide water to the reservoirs from the aqueduct. A 3000-foot, 16-inch pipeline will also be constructed along the westerly boundary of EastLake to serve the 711-foot pressure zone and Reservoir 22-1. A 5 million gallon reservoir will be constructed at one of three locations north of EastLake I to supply water to the 930-foot pressure zone onsite. This will require development of a pump station in the east central portion of the site to pump water into the reservoir. Pipelines will be installed throughout the site to transport water to and from Reservoirs 930 and 22-1.

A 3 million gallon reservoir (22-3), has been approved for development west of the project site to serve the area west of Otay Lakes Road and north of Telegraph Canyon Road. In order to provide adequate water storage for the project site and other locations within the 930-foot pressure zone, OWD is proposing to develop a 6 million gallon reservoir at this location instead of a 3 million gallon reservoir.

OWD is also proposing that a 25 million gallon seasonal reservoir be developed in the project vicinity. This reservoir would receive water from the adjacent aqueduct and would provide some of the future daily water supply. However, the primary purpose of the seasonal reservoir would be to provide water in case of an emergency, such as a break in the aqueduct. Construction of this reservoir is not part of the current proposal, however, a possible location for this reservoir is in Parcel R-16a in the southwest corner of EastLake I. The supplemental SPA for the southern portion of the site will address the potential development of a seasonal reservoir within Parcel R-16a.

As illustrated on Figure 3-8, several pipelines in the central portion of EastLake I will be oversized to provide adequate capacity for planned developments in the project vicinity.

The proposed water pipelines will be located within roadways onsite or will be contained within easements. Thus, access to onsite water facilities will be assured. The supplemental SPA for the southern sector of the site will address access to the 22-1 reservoir, the central area pump station and the seasonal reservoir proposed by OWD.

The pipelines and reservoirs outlined above will facilitate the transportation and distribution of water to EastLake I. In addition, fire flow and pressure requirements will be met for each land use.

Financing of the water facilities outlined above will be accomplished through the combined use of OWD Improvement District annexation fees, OWD capacity charges, meter fees and use of a form of bond funding. Financing of the water facilities could also be achieved through a Mello-Roos Community Facilities District. It is not currently known exactly how funding of water facilities will be accomplished. However, it is anticipated that the applicant's contribution would be substantial. The applicant's contribution through one or a combination of some of these methods will ensure that adequate facilities are available to the transportation and distribution of water to the site.

In order to reduce onsite imported water consumption, the applicant is exploring the feasibility of utilizing reclaimed water for irrigation needs. The applicant intends to use reclaimed water to irrigate the proposed golf course on Parcel R-16b, the potential high school south of the site, landscaping adjacent to SR125 and Telegraph Canyon Road and the community park (Parcel P-5). Precise plans for the onsite water reclamation system are being developed in conjunction with the supplemental SPA. The use of relaimed water on other portions of the site is also being explored. All reclamation projects must comply with California's wastewater reclamation criteria (Title 22, Division 4, Chapter 3 of the California Administrative Code); and the developer must obtain waste discharge requirements from the California Regional Water Quality Control Board prior to using reclaimed water.

In addition to the potential water reclamation program, other measures are being implemented as part of the project to reduce onsite water requirements. These measures are outlined in the Energy Conservation Analysis contained in the SPA Plan and include limiting water pressure within residential units, landscaping with drought resistant plant species, utilizing efficient, automatic irrigation systems, the use of low flow and water efficient plumbing fixtures and appliances, and more extensive implementation of attached housing projects with common landscaping to reduce irrigation requirements. Water conservation measures required by law would also be incorporated into the project design.

3.3.1.3 Mitigation Measures

Adequate water transportation and distribution facilities must be constructed in conjunction with EastLake I. Thus, no impacts to existing water facilities

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would result from development of EastLake I and no mitigation is required. The proposed project would incrementally increase regional water consumption as discussed in Section 3.5 of the Master Environmental Impact Report for EastLake (City of Chula Vista, 1982b). However, it is anticipated that urbanization would occur within the planning area regardless of whether the current proposal is approved. The incorporation of water conservation measures would minimize the consumption of water and no significant impacts to water availability would result. Thus, no mitigation is required.

3.3.1.4 Analysis of Significance

The proposed project would incrementally increase regional water consumption, however, several measures to reduce water consumption have been incorporated into the project design. The provision of efficient irrigation systems, and plumbing fixtures as well as the possible utilization of reclaimed water will help reduce the onsite consumption of imported water. Also, it is anticipated that the planning area would be developed regardless of whether the current proposal is implemented. The approval of a development which incrementally reduces regional water availability represents an adverse though nonsignificant impact.

3.3.2 Sewer Services

3.3.2.1 Existing Conditions

The City of Chula Vista is responsible for sewer service in the project vicinity. At present there are no sewer facilities on the property; the closest existing line is a 15-inch sewer trunk line located beneath Telegraph Canyon Road, 3500 feet west of the site.

Several sewer lines are planned for development near the site. Proposed lines will be developed by others northwest of the site in conjunction with Bonita Meadows. An extension of that system will serve a portion of EastLake I. Additional lines will be developed by others within Bonita/Long Canyon Estates west of the site.

The City of Chula Vista holds capacity rights in the San Diego Metropolitan Sewerage System (Metro). The Metro system treats its sewage at the Point Loma Sewage Treatment Plant.

The Wastewater System Subarea Master Plan (Lowry & Associates, 1984b) prepared for EastLake I identifies portions of five natural drainage basins onsite. These basins are Proctor Valley, Long Canyon, Telegraph Canyon, Poggi Canyon and Salt Creek. Mains within these areas currently receive sewage from areas surrounding the project site primarily by gravity flow.

3.3.2.2 Impacts

Based on sewage generation rates contained in the Wastewater Master Plan, EastLake I is projected to generate an average flow of 1.38 million gallons of sewage per day. A number of improvements are proposed to transport project waste into the Metro System via City of Chula Vista sewerage infrastructure.

The northwestern limit of the project site, comprising portions of Parcels R-1 and R-4 would sewer by gravity north into the proposed Bonita Meadows sewer (Figure 3-9). If this area is developed prior to Bonita Meadows, an interim pump station and force main would be constructed to pump sewage west into the Long Canyon trunk line.

Sewage from the north central portion of the site would flow southwest into a pump station and would then be pumped through a 6-inch pipe into the 8-inch gravity sewer along the proposed alignment of Rutgers Road which flows south to the 15-inch Telegraph Canyon trunk line. This area would ultimately flow by gravity into the proposed Bonita Long Canyon Estates sewer which runs down Long Canyon. Parcels, as indicated on Figure 2-4, and included in this area are: R-2, R-3, R-5, R-6, R-7a and b, R-10, R-11, S-1, P-1, P-2, and portions of R-4. The Bonita Long Canyon Estates sewer would be expanded to serve EastLake I. The location and capacity of the Long Canyon sewer has not yet been determined. Negotiations are currently underway between the applicant and the developer of Bonita Long Canyon Estates to settle this issue. A Supplemental EIR will be prepared for EastLake I which will address potential constraints associated with offsite improvements such as the Long Canyon sewer line.

The northern extension of the site comprising parcels E-11, R-8a and b, R-9, R-13 and portions of E-1 and P-3 will sewer by gravity northwest through a 6000-foot offsite connection to the proposed Bonita Meadows sewer. This sewer will need to be expanded to an adequate capacity to serve EastLake I. A Supplemental EIR will be prepared for EastLake I which will address potential constraints associated with offsite improvements.

The remainder of EastLake I, comprising the majority of the Employment Park, all of the Village Center and areas south of Telegraph Canyon Road, will sewer to the west by gravity. A 3500-foot extension of the 15-inch Telegraph Canyon trunk line is proposed to accommodate sewage from this area. EastLake I areas not naturally tributary to this sewer, located in the western portion of EastLake I, may be temporarily pumped into the Telegraph Canyon basin and also are proposed to be served on an interim basis via the existing trunk sewer. These locations would ultimately connect to

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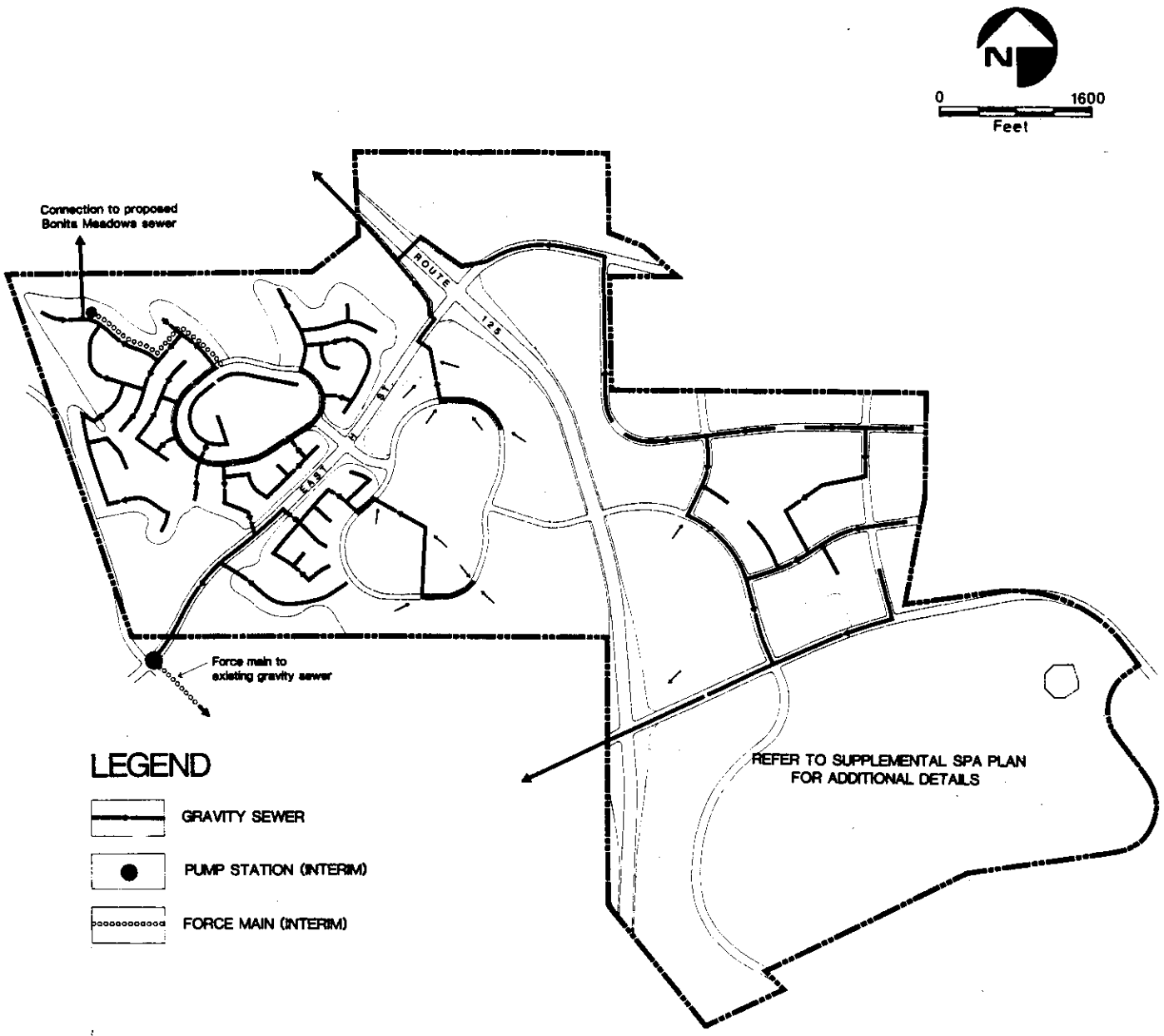

SOURCE: Cinti & Associates, 7/13/84.

EastLake I Sewer Plan

FIGURE 3-9

Bonita/Long Canyon Estates facilities that flow down Long Canyon. The remaining phases of EastLake will be served either by constructing an onsite wastewater reclamation facility or extending another trunk sewer to existing facilities in the Otay River Basin. A decision concerning service of later phases is contingent on the timing of development in surrounding areas and should be made only after further regional sewer capacity requirements have been evaluated.

Based on acreage allocations, EastLake I will use more than its share of the Telegraph Canyon trunk sewer capacity. However, recent monitoring revealed that other basin developments are generating less total sewage than anticipated resulting in an implied surplus capacity. As indicated in the Wastewater Master Plan of the EastLake I SPA Plan, under Monitoring Program, the Telegraph Canyon trunk sewer was monitored by the City of Chula Vista in September and October of 1983. The trunk sewer was metered at the downstream end of the upper Telegraph Canyon basin at Hilltop and "J" Street. It was found that existing development was 17 percent below the design level with a peak flow of 2.18 mgd. Continued monitoring will take place to check flows within this sewer. When the sewer reaches capacity, EastLake onsite land uses will be required to flow through sewers in their appropriate drainage basins. This would require the development of additional facilities which would be funded by EastLake I and other developments as appropriate and equitable.

The provision of the facilities listed above at the dimensions outlined in the Wastewater Master Plan would adequately handle project generated sewage. Formal agreement between the applicant and the City of Chula Vista will ensure the timely provision of sewer service.

Development of EastLake I would incrementally reduce the unused capacity at the Point Loma Metro Treatment Plant. However, due to the large area served by the system and the comparatively small increase generated by EastLake I, the project would not represent a significant impact on the volume or the quality of effluent produced by the plant.

3.3.2.3 Mitigation Measures

No significant impacts related to the provision of sewer service are anticipated to result from the proposed project. Thus, no mitigation is required beyond improvements specified in the Wastewater Master Plan in conjunction with need. Mitigation measures concerning offsite sewer improvements will be addressed in a Supplemental EIR to be prepared for EastLake I. Pursuant to an agreement with the City of

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Chula Vista, EastLake will be temporarily allowed to discharge more of its share into the Telegraph Canyon interceptor sewer. When the line reaches capacity or when other development that would be allocated use of the line is proposed, EastLake will be required to construct other lines to dispose of the excess sewage. This agreement is presently being revised by City of Chula Vista staff and is expected to be adopted prior to approval of final maps.

3.3.2.4 Analysis of Significance

Development of the sewage facilities outlined in the Wastewater Master Plan would provide adequate service to the project site. Additional sewage generated by EastLake I would represent a cumulative adverse, though non-significant impact to the Metro Sewerage Treatment Plant.

3.3.3 Educational Facilities

3.3.3.1 Elementary Schools

3.3.3.1.1 Existing Conditions

The project site is currently undeveloped and does not generate a requirement for educational facilities. The Chula Vista Elementary School District has jurisdiction over the project site. During the 1983/84 school year, the District's total enrollment was 13,715 students. The closest elementary schools to the project site include Tiffany, Sunnyside, Allen and Rogers Elementary Schools. During the 1983/84 school year, each of these schools operated at or slightly below capacity. The District provides education to grades Kindergarten through 6.

3.3.3.1.2 Impacts

An Elementary School Draft Master Plan was prepared for EastLake I to determine the elementary school requirement of the proposed project (Urbanplan, 1984). The following paragraphs summarize the results of the Draft Master Plan.

Elementary school student generation rates were projected for each residential product type within EastLake I. Based on these projections, full buildout of EastLake I is anticipated to generate 1000 to 1200 elementary school students and would generate a requirement for two elementary school facilities.

The first elementary school students generated by the initial development of EastLake I (up to 300 students) would attend one of several District schools in the area. Integration and enrollment policies dictate which schools will serve students at the time of need, thus it is not currently known which schools would serve project students.

The first elementary school within EastLake I would be developed when 300 students reside onsite. This is expected to occur in mid-1986. Based on the proposed phasing plan and residential project types, the ideal location for the first school would be in the northwestern sector of the site adjacent to the park. A 10.2-acre school site has been allocated in this area as indicated on the Site Utilization Plan (Figure 2-4). In order to best serve project students, the school should have a permanent capacity for 600 students, temporary capacity for an additional 120 students, and should operate on a year-round calendar. Funding for the schools is expected to be derived from State funds or a Mello-Roos Community Facilities District.

Development of a second elementary school would be justified when enrollment reaches 900 students (mid-1990). This school would serve the final students generated by EastLake I and the other students generated by development in the project vicinity. The ideal location for this school would be in the southeastern sector of the site, however, a site has not been reserved. The Supplemental SPA Plan for EastLake Greens will address the provision of a second elementary school site.

The provision of the facilities outlined above would adequately serve elementary school students generated by EastLake I. However, if elementary schools are not developed within the time frames outlined above and in accordance with need, a significant impact would be incurred upon the existing facilities of the School District. The Chula Vista Elementary School District has not established enrollment versus capacity figures for schools within its service district. Therefore, the capacity status of District schools cannot be determined. In addition, due to variable bussing practices it cannot currently be determined which schools would serve project residents. Therefore, the initial utilization of District schools represents a potentially adverse affect if schools are overcrowded at the time of need. However, this would represent a short-term impact until the first elementary school is developed onsite and would not represent a significant impact associated with project implementation.

3.3.3.1.3 Mitigation Measures

Adequate land for the necessary school sites should be acquired by the school districts during the phases of buildout of the EastLake community. Funding is anticipated to be derived from the State or a Mello-Roos Community Facilities District. At this time it appears necessary to provide two elementary school sites within the project area to adequately serve future project residents. A site for the first school has been allocated by the Site Utilization Plan, however, the second site is not shown.

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The second site will be provided in the southern limit of the site unless it is subsequently proven that a second school is not needed. This issue will be addressed in the Supplemental SPA Plan for EastLake Greens neighborhood. The potential short term impact associated with utilizing District facilities prior to development of onsite schools could be mitigated by the provision of temporary facilities or the development of schools concurrently with residential development.

3.3.3.1.4 Analysis of Significance

The provision of temporary or permanent facilities acceptable to the Chula Vista Elementary School District would mitigate the potential short term impact to a level of insignificance. The project has provided school facilities and no other impacts would result from project implementation.

3.3.3.2 Secondary Education Facilities

3.3.3.2.1 Existing Conditions

The Sweetwater Union High School District has jurisdiction over the study area. The District serves students in grades 7 through 12. Junior High Schools and High Schools in the project vicinity include Bonita Vista Junior High and High School and Hilltop Junior High and High School. Each of these schools except Hilltop Junior High School currently operated below the comfortable capacity established by the District throughout the same school year. During the 1983/84 school year, Hilltop Junior High School operated with 67 students above comfortable capacity (Chunn, 1984).

3.3.3.2.2 Impacts

Based on a student generation rate of 0.23 students per dwelling unit (Ruhnau et al., 1983), the proposed project would generate approximately 847 junior high and high school students at full buildout. Existing schools within the Sweetwater Union High School District are anticipated to have adequate capacity to serve students generated by EastLake I. However, the cumulative effect of this and other similar developments could cause overcrowding at District schools in the future. Thus, the project represents a potential incremental adverse effect to the Sweetwater Union High School District.

In order to eliminate the potential incremental effect of EastLake I, the applicant is currently involved in negotiations with the School District. A future offsite high school site under the same ownership as EastLake I has been identified adjacent to the southwest limit of the project site. Plans to develop a portion of a high school on this site in conjunction with EastLake I are being considered. Funding to

develop the facility would be derived from State grants or a Mello-Roos Community Facilities District.

3.3.3.2.3 Mitigation Measures

On a short-term basis, development of EastLake I would not adversely affect existing junior high and high school facilities. The first students would be adequately served by existing schools. Temporary classrooms can be added to expand capacity. On a long-term basis, however, the cumulative effect of this and other similar developments could adversely affect the Sweetwater Union High School District. The provision of a high school or other facility acceptable to the Sweetwater Union High School District would mitigate the potential impact to insignificance. However, since the high school is not part of the current proposal, development of a high school is not assured.

3.3.3.2.4 Analysis of Significance

If a high school is not provided in conjunction with EastLake I, the potential effect of this project on the Sweetwater School District constitutes an incremental impact which is considered adverse but not significant. If junior and senior high school facilities are provided onsite concurrently with need, no adverse impact would result.

3.3.4 Police Protection

3.3.4.1 Existing Conditions

The project site is located under the jurisdiction of the Chula Vista Police Department. The project is not located in a police patrol beat, however, Beat 32 is located due west of the site. Beat 32 is manned by one patrol car 24 hours a day. The average response time within Beat 32 is 4.5 minutes for priority calls and 20 minutes for routine calls (Seiveno, 1984). Optimum response times are normally considered to be 3 minutes for priority calls and 15 minutes for routine calls.

3.3.4.2 Impacts

Upon project approval, police patrol Beat 32 will be expanded to include the project site (Seiveno, 1984). Increased calls associated with project implementation would place further demands on the single patrol car serving Beat 32. In addition, current response times are above those considered optimum. The additional development associated with project implementation would place additional demands on an undermanned police beat which would represent an adverse impact associated with the proposed project.

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As EastLake and other similar projects develop, the Chula Vista Police Department will be required to add additional facilities and staff to serve the increased service area. By itself, EastLake would incrementally affect the Department. However, on a cumulative basis, this and other similar developments could significantly impact the Department.

The Chula Vista Police Department receives funding from the City of Chula Vista General Fund. These monies are used to maintain and upgrade police facilities. By contributing to the general fund the applicant will offset the adverse effect of increasing the service population.

3.3.4.3 Mitigation Measures

Property assessments of new development will enable the City of Chula Vista to increase the staffing and facilities of the Police Department.

3.3.4.4 Analysis of Significance

An adverse though non-significant impact could occur due to an increased demand for police services in a service area currently operating above the optimum response time. However, additional police staff is anticipated to be added with funds generated by EastLake and other similar developments. No significant impacts would occur.

3.3.5 Fire Protection

3.3.5.1 Existing Conditions

The Chula Vista Fire Department has jurisdiction over the project site. The closest fire station to the project site is Station #4, located on Otay Lakes Road near Southwestern College. Station #4 consists of 1 company staffed with 3 firefighters. The Fire Department does not include paramedic service.

3.3.5.2 Impacts

As outlined in Section 3.8.1, Population, EastLake I would comprise a resident population of approximately 9503 persons. Expansion of the Chula Vista Fire Prevention Bureau's facilities and staff will be required to serve the increased population.

During the initial stages of development, Station #4 would respond to the project site. The response time to EastLake would range from 5 to 8 minutes, depending on the location of an onsite emergency. Optimum fire response time is 5 minutes or less (Monsell, 1984).

A 2000-square foot fire station will be constructed in conjunction with the development of EastLake I. The land for the station will be determined by the City of

Chula Vista and financed by a contribution from the applicant. Construction and outfitting of the single engine fire station will be funded through a Mello-Roos Community Facilities District. It is anticipated that the station would be staffed by three employees to be provided by the City of Chula Vista.

Adequate water pressure will be provided to meet the City's fire flow requirements. This issue is discussed in Section 3.3.1, Water Availability.

Development of the property as proposed within the City of Chula Vista would constitute an adverse impact initially, in that existing facilities and personnel would be required to provide fire protection services over a much larger geographical area and for a larger population. Response time to the first phase of development would be 5 to 8 minutes, instead of the preferred 5 minutes.

3.3.5.3 Mitigation Measures

The short-term adverse impact to Station #4 will ultimately be mitigated to a level of insignificance through the provision of an equipped fire station. No other mitigation is necessary.

3.3.5.4 Analysis of Significance

The proposed project will create increased demands for fire protection service and would represent an short-term adverse impact to the Chula Vista Fire Department. The provision of a new station, firefighting apparatus and equipment, and the necessary fire flows will eliminate the impact.

3.3.6 Parks and Recreational Facilities

3.3.6.1 Existing Conditions

Portions of the site are within neighborhood park districts established under the Chula Vista General Plan Parks and Recreation Element (1979). The policies established in the General Plan call for a system of parks designed to serve as many diverse areas and needs in the community as possible. Parks are to be located adjacent to elementary school playgrounds when possible to promote multiple use of facilities, and should be within close proximity to those they are designed to serve. Since regional parks needs are met outside the City, Chula Vista is primarily concerned with developing community and neighborhood parks. The EastLake site is partly within three community park districts. The standards established in the Parks and Recreation Element for neighborhood and community parks are outlined below.

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Neighborhood Parks

Area: 2 acres for every 1000 persons served
Minimum Desirable Size: 5 acres when adjacent to an elementary school, 10 acres when not adjacent to an elementary school
Population Served: 2500-5000 persons
Service Radius: 1/2 mile
Purpose: To provide near-at-hand recreation facilities and to serve as a neighborhood focal point.

Community Parks

Area: 2 acres for every 1000 persons served
Minimum Desirable Size: 15 acres
Population Served: 7500 persons or more, depending on the acreage of the park
Service Radius: 1.5 miles
Purpose: To provide recreation facilities which require more space than neighborhood park sites can accommodate, such as tennis courts, swimming pools, multipurpose courts, community centers or recreation centers.

3.3.6.2 Impacts

Based on the City of Chula Vista park standards and the projected EastLake I population of 9503, 19 acres of neighborhood parkland and an equal amount of community parkland will be required onsite.

Five parks and three minor parks are proposed for development within EastLake I. A 2.8-acre neighborhood park would be developed on Parcel P-1 adjacent to the elementary school site in the EastLake Hills neighborhood. Parcel P-2 would comprise a 3.8-acre neighborhood park within a loop road in the EastLake Shores neighborhood of the site. Parcel P-3, comprising 17.5 acres, would be located adjacent to P-2 and would include a lake and park. An 8.5-acre park would be developed within the EastLake Business Center on Parcel P-4. A 14.9-acre community park would be developed on Parcel P-5 in the EastLake Greens neighborhood of the site, adjacent to the future offsite high school. Thus, the project would provide a total of 32.6 acres of neighborhood parkland and 14.9 acres of community parkland onsite.

The three minor parks in the residential area of EastLake Shores (within Parcels R-7a, R-8b, R-10 and R-11) will comprise 1.5 acres and will be common area facilities under the EastLake community association.

The final determination of maintenance and ownership of the proposed project parks will be included as a function of the tract map review process. Parcels P-1, P-2, P-3 and P-4 are currently intended to be owned and maintained privately through a series of homeowner and property owner associations which will be established. Parcel P-5 in the EastLake Greens neighborhood and the minor parks in the EastLake Shores neighborhood are intended to be part of community parks which will be owned and maintained publicly.

The proposed community parkland allocation is less than the 19 acres required by the City standard. However, 32.6 acres of neighborhood parkland plus the minor parks would be provided onsite, 13.6 acres more than required. This would offset the low community parkland allocation and the proposed parkland would adequately meet the City requirement. Thus, no impacts are foreseen in regard to the provision of onsite parkland.

3.3.6.3 Mitigation Measures

The lack of significant adverse impacts precludes the necessity of mitigation measures.

3.3.6.4 Analysis of Significance

No impacts to park and recreation facilities would result from project implementation.

3.3.7 Library Services

3.3.7.1 Existing Conditions

The City of Chula Vista currently operates one central library located at 365 F Street in the Chula Vista Civic Center. The library contains approximately 20,000 volumes and circulates 830,000 books per year. During the last 9 months of 1983 the library averaged 28,888 patrons per month. In terms of number of books and patrons served, the library is currently operating at capacity (Howard, 1984).

3.3.7.2 Impacts

The 9503 residents expected to result from project implementation would increase the demand for library facilities. However, as outlined above, the Chula Vista Public Library currently operates at capacity. Thus, the proposed project would represent an adverse impact to library facilities.

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Several options are available to provide additional library facilities within EastLake. A branch library could be developed on a dedicated site within the Civic Plaza or in an expansion of the community meeting hall. A smaller, community library could also be developed within the community meeting hall or within the commercial center. The Planned Community regulations for EastLake I require that the developer indicate a 1-acre library site near the commercial center with the stipulation that should the library site not be utilized within 10 years after dedication, the site would revert to the owner. Financing of the 4000-square foot facility outlined above could be achieved through a Mello-Roos Community Facilities District or special grants as outlined in the Public Facilities Finance Plan (The McKinley Associates, 1984). These provisions would ensure that additional library facilities are developed within EastLake I. However, the timing of development has not been determined. Since existing library facilities are considered to be at capacity, additional library facilities will be needed during the initial stage of development. If library facilities are not provided during the intial stage of development, the project would represent an adverse though non-significant short term impact until library facilities are developed.

3.3.7.3 Mitigation Measures

The adverse impact could be mitigated through the provision of the 4000-square foot library facility indicated above and acceptable to the Library Director of the Chula Vista Public Library.

3.3.7.4 Analysis of Significance

The potential adverse, though non-significant, impact to library facilities would be eliminated through the provision of a library facility as indicated in the Planned Community Regulations for EastLake I and acceptable to the Head Librarian of the Chula Vista Public Library.

3.3.8 Energy Supply and Conservation

3.3.8.1 Existing Conditions

The San Diego Gas & Electric Company (SDG&E) provides electricity and natural gas to the project vicinity. Two SDG&E electrical transmission lines are located in the immediate project area. A 230 kilovolt (kV) transmission line is located within a 120-foot easement travelling in a north-south direction through the central portion of the project site. Two 69 kV transmission lines are planned for development within this easement in the future. In addition, a 138 kV transmission line is located within a 250-foot easement bordering the northwesternmost limit of the site.

Electricity and natural gas distribution facilities are present near the project site, however, no distribution lines are located onsite.

3.3.8.2 Impacts

Pursuant to rules filed with the Public Utilities Commission, SDG&E will provide natural gas and electricity to the project site. This is contingent on the continued availability of fuel and government approval of facilities construction. Existing distribution facilities near the site would be extended to serve the project.

Energy will be used onsite for uses such as space and water heating, interior and exterior lighting, cooking, operation of appliances and stoves, water and sewer service and motor vehicle transportation. Table 3-8 shows the projected monthly natural gas and electricity consumption at full project buildout. EastLake I would generate a monthly requirement of approximately 7,750,395 kWh of electricity and 363,348 therms of natural gas. Motor vehicle transportation would also generate an energy requirement. Based on an estimated trip rate of 30,029 vehicles per day (Willdan, 1984), an average trip length of 6.63 miles (SANDAG, 1984) and an average fuel consumption rate of 24 miles per gallon, the project would require 248,865 gallons of fuel per month for transportation.

The Energy Conservation Analysis of the SPA for the proposed EastLake I development states that the developer is seriously committed to developing an energy-efficient community (EastLake Development Company, 1984). In order to achieve that goal, several measures regarding energy conservation are discussed for implementation in the project. These occur in two basic areas -- transportation-related and heating- and cooling-related consumption. The suggested measures are outlined below.

Measures to Minimize the Consumption of Motor Vehicle Fuels

- Provide employment, services and residences within EastLake I to minimize external trips.
- Encourage the use of public transit by providing bus loading zones at key locations throughout the community.
- Implement efficient circulation systems including phased traffic control devices.

Measures to Minimize Natural Gas and Electricity Consumption

- Adhere to updated Title 24 building construction and design standards.
- Install landscaping that provides afternoon shade, reduces glare, encourages summer breezes, discourages winter breezes.

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Table 3-8

PROJECTED NATURAL GAS AND ELECTRICITY CONSUMPTION

Land Use	Consumption Generator	Electricity		Natural Gas	
		Consumption Factor kWh/mo	Consumption kWh/mo	Consumption Factor Therms/mo	Consumption Therms/mo
Residential					
Detached	1,651 d.u.	502[1]	828,802	79[1]	130,429
Attached	2,032 d.u.	254[1]	516,128	46[1]	93,472
Employment	153.7 ac.	29,167[2]	4,482,968	500[2]	76,850
Office/Commercial	34.2 ac.	50,000[2]	1,710,000	1,731[2]	59,200
School	10.2 ac.	20,833[2]	212,497	333[2]	3,397
Open Space/Parks/ Circulation	449.1 ac.	0	0	0	0
TOTAL			7,750,395		363,348

[1] Energy/LA Action Plan, 1983

[2] WESTEC Services, 1982

- Minimize reflective and heat absorbing landscapes.
- Reserve solar access and implement passive solar systems.
- Develop attached dwellings and detached dwellings on small lots to decrease indoor and outdoor heating and lighting requirements.
- Install energy efficient appliances in residential and non-residential developments.
- Limit strict lighting and install energy efficient lights.
- Demonstrate energy conservation practices.

These measures would receive detailed attention and analysis when specific development plans are drawn up for siting, architecture and landscaping within the community.

Implementation of these conservation measures could lower the energy requirement for the EastLake I community. The level to which consumption could be lowered is affected by many factors, including increases in energy costs, decreases in energy supply, increases in energy efficiency in vehicles and buildings, and advances in alternative systems technology, thus estimates are difficult to make and not dependable. The conservation measures mentioned above are important in helping to ensure that the development's impact on regional energy consumption is not disproportionately large.

Access for maintenance to the 138 and 230 kV transmission line corridors would be available from roads and open space within EastLake I. Access will be assured at the time tentative maps are submitted for review. Any proposed grading, improvements or encroachments into the right of way will be reviewed by SDG&E prior to development.

3.3.8.3 Mitigation Measures

Adequate facilities will be available to transport gas and electricity to the project site. Since the continued availability of energy supplies cannot be assured, the project has incorporated measures to reduce natural gas and electricity consumption and conserve fuel. Thus, the development of EastLake I would not adversely affect gas and electric facilities or the conservation of energy resources.

3.3.8.4 Analysis of Significance

Project development would require energy facilities to be extended to serve the project. Energy demand from the proposed project would be similar to other similar developments and would not have any significant impacts. The developer has expressed an interest in developing an energy-efficient community, which could result in a relatively lower consumption than standard developments.

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3.3.9 Other Utilities and Services

3.3.9.1 Solid Waste Disposal

Solid waste disposal within EastLake I will be provided by Chula Vista Sanitary Service which has a franchise for the City of Chula Vista. Based on an average residential refuse generation rate for the City of Chula Vista of 7.5 pounds/person/day for single-family residences, and 5.0 pounds/person/day for multi-family residences, EastLake I would generate 52,774 pounds of refuse per day (816 detached residences x 2.58 persons per unit x 7.5 pounds per day equals 15,790 pounds, plus 2867 attached residences x 2.58 persons per unit x 5.0 pounds per day equals 36,984 pounds: totalling 52,774 pounds). The proposed commercial, industrial and public facility land uses would generate additional refuse, however, this amount cannot be determined since the precise amount of development is not currently known.

Refuse from the project site would be transported to the Otay landfill located north of Otay Valley Road, 1 mile east of Highway I-805. The Otay landfill accepts approximately 900 tons of refuse per day and has a projected lifespan through the year 2006 (Massman, 1983).

Project generated waste would increase the amount of waste currently being handled at the landfill. The San Diego Department of Pubic Works anticipates that the amount of solid waste generated by EastLake I would not represent a significant impact although it would incrementally decrease the lifespan of the landfill.

3.3.9.2 Telephone Service

Pacific Bell provides telephone service in the project vicinity. In accordance with the California Public Utilities Commission regulations, Pacific Bell would provide telephone service to EastLake I. It is anticipated that existing telephone lines in Otay Lakes Road would be extended to serve the project. The developer would share the costs associated with extending the lines. No adverse impacts would result in regard to the provision of telephone service to the site.

3.3.9.3 Hospital Facilities

The closest medical facilities to EastLake I are Community Hospital of Chula Vista and Vista Hill Hospital, located adjacent to each other approximately 3.5 miles southwest of the project site. Community Hospital of Chula Vista is virtually a full service medical facility (without obstetric facilities), that currently comprises 131 beds. This hospital operated at 80 percent capacity in 1983 (Hale, 1984). Vista Hill Psychiatric Hospital comprises 58 beds. The Vista Hill 1983 average occupancy rate was 80.1 percent (MacDonald, 1984).

3.3.9.4 Ambulance Service

Hartson's Ambulance Service, a private company, would respond to onsite medical emergencies within 15 minutes (Masteri, 1984). Patients would be transported to Community Hospital of Chula Vista, a 10 minute drive, or to another hospital of their choice. As the project site and vicinity becomes more urbanized Hartsons may develop additional facilities to serve the east Chula Vista area. No impacts are foreseen regarding the provision of ambulance service to the site.

3.4 VISUAL RESOURCES

3.4.1 Existing Conditions

The project site consists of 1267.9 acres of land in the western foothills of the Peninsular Range. The project site is typical of the foothills, with rolling hills cut by drainages. Elevations range from 750 feet above mean sea level (MSL) at the southeast portion of the site, to 370 feet above MSL in the northwest corner of the site where it slopes down to Proctor Valley. Figure 2-2 indicates the topography of the site and the surrounding area.

The site consists of portions of two ridges sloping down from San Miguel Mountain, with intervening drainages. The highest ridge is located south of Telegraph Canyon drainage and runs in a northeast to southwest direction. The ridge north of Telegraph Canyon drainage slopes down from San Miguel Mountain in a westerly, southwesterly direction, and is cut by the Long Canyon drainage and a branch of Proctor Valley drainage.

The project site is presently used almost exclusively for growing barley, though a small portion in the north and the steeper canyon walls in the northwest remain natural. During the spring, the site presents a green, pastoral appearance. In the summer and fall, the grain turns brown and after harvesting, bare fields remain. The site is plowed during the fall and winter and remains bare through these seasons.

The site is bisected by paved Otay Lakes Road, Telegraph Canyon Road, and graded dirt Janal Road. Otay Lakes Road is partially lined by pepper and olive trees eastward past its intersection with Telegraph Canyon Road. Janal Road is lined on its east side with large pepper trees, northward past its intersection with Otay Lakes Road. There are no residences or buildings on the project site. The Rancho del Otay and Janal Ranch complexes are located 1/2 to 1 mile east of the project site. A water reservoir tank surrounded by eucalyptus trees is located in the southeast portion of the site, in a low area south of Otay Lakes Road.

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The site is bordered on the northwest and southwest by existing single-family developments and Otay Lakes Lodge Mobile Home Park. Otay Lakes and Park are located 1 to 1.5 miles east of the site. The remainder of the surrounding land is vacant or used for agriculture. To the north of the project site, across Proctor Valley Road, the slopes are used for grazing.

Views from the higher elevations onsite are panoramic. On the 600-foot elevation ridge north of Telegraph Canyon drainage, the view encompasses rolling hills in the foreground and includes Sweetwater Reservoir and Spring Valley development to the north, the undeveloped Mother Miguel and San Miguel Mountains to the northeast, Jamul Mountains to the east, San Ysidro Mountains to the southeast, and the single-family homes to the southwest and west. On a clear day, a view of the Pacific Ocean, San Diego Bay and downtown, Coronado, Point Loma, and San Diego urban development can be seen to the west/northwest.

From the 750-foot ridge south of Telegraph Canyon Road, Lower Otay Lake can be seen to the east. Views from the lower elevations onsite are much more constrained by topography and consist of the interior of drainages. Occasionally, San Miguel Mountain or the Jamul Mountains are visible over the tops of hills.

The project site's visibility to the surrounding area is dictated by topography. The entire site is visible to hikers or other recreational uses on San Miguel Mountain or the Jamul Mountains. Residential development adjacent to the northwest corner of the site has a view of the ridge north of Telegraph Canyon drainage, although it is a backyard view and is interrupted by the presence of a transmission line at the northwest corner of the site. The single-family homes southwest of the project site have a limited view of the slopes and ridges flanking Long Canyon, although this is also a backyard view. The Otay Lakes Lodge Mobile Home Park does not have a view of the project site.

Parts of the project site are also visible to travellers on paved Otay Lakes Road and graded dirt Proctor Valley Road. Motorists view the slopes nearest roadways. This generally is a strip from 500 to 1500 feet wide, though canyons allow viewers to see up to 3000 feet from the roadway. Transmission lines bisect the project site north of Telegraph Canyon drainage, including the SDG&E 230 kV line running from north to south.

3.4.1.1 Designated Scenic Resources

City of Chula Vista: Otay Lakes Road is designated as an unofficial Scenic Route by the City of Chula Vista Scenic Highways Element (City of Chula Vista,

1974) because of the panoramic views of pastoral hills and valleys. On a clear day, downtown San Diego is visible from the section of roadway west of the project site. The Scenic Highways Element also designates proposed roadways as unofficial Scenic Routes. East "H" Street, which will eventually cross the project site, would be designated as an unofficial Scenic Route. The major objective of the Scenic Element is to "preserve and enhance the scenic quality of selected streets in Chula Vista." To meet this objective, several policies have been developed which address plan review for parcels adjacent to scenic routes.

Astronomical Dark Sky: California is well known for its preeminence in the field of optical astronomy. Mountain tops in central and southern California are among the best sites in the world for astronomical observations. San Diego County in particular is ideal because of the large number of clear nights during the year, stable atmospheric conditions and the low level of natural night-sky illumination.

Astronomical dark sky is an important issue in San Diego County because of the location of two major observatories at Mt. Palomar and Mt. Laguna. Palomar Observatory is located approximately 50 miles north, northeast of the EastLake I study area and consists of three main telescopes, including the 200-inch Hale reflector telescope operated by California Institute of Technology (CalTech). Mt. Laguna Observatory is situated 35 miles east, northeast of the project site and consists of four telescopes operated jointly by San Diego State University and the University of Illinois.

Scattered light from the sky over cities and communities has greatly increased as the use of outdoor illumination has become more widespread. This light pollution resulting from metropolitan development in southern California is considered a chief threat to astronomical research at Mt. Palomar and Mt. Laguna observatories. The illumination from the San Diego metropolitan area has become significant and is having an adverse effect on the performance of the telescopes.

At present, the observatories are requesting that local jurisdictions consider the Dark Sky problem when selecting lighting equipment for streets and other outdoor purposes. The City of San Diego has recently decided to convert its lights to low pressure sodium vapor (LPSV) lamps, which reduce sky glow and preserve dark sky required for astronomical observations. Several other cities within the County are currently considering or converting to LPSV (Vista, Poway and Escondido).

High pressure sodium vapor lamps for outdoor illumination are presently the standard for the City of Chula Vista (Traffic Engineering Department, 1984). Mercury vapor lamps are presently being converted to high pressure sodium vapor to standardize outdoor illumination within the City of Chula Vista.

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3.4.2 Impacts

The proposed EastLake I development would change the appearance of the project site as the pastoral character of the existing landscape would be replaced by urban development. The project site has been designated in the Chula Vista General Plan for urban development, however, and the SPA Plan does not present a significant alteration to this commitment. The EastLake I development will be constructed in compliance with the Planned Community land use designations and guidelines, which will alleviate any visual impacts.

Compliance with the general grading policies with regard to development in the Planned Community will significantly decrease the potential for adverse visual impacts. General policies with regard to development within the project are as follows:

- Visually significant slope banks will be preserved in their natural state by clustering development on the gentle sloping hillsides currently under agricultural development. Retaining natural slope banks in the northern section of the property adjacent to Proctor Valley, and open space in the Long Canyon area will serve to avoid visual impacts.
- The natural character of the hillsides will be retained in open space in the northern portion of the property.
- Native plant materials and areas of historical or visual significance identified by the Chula Vista General Plan or through the EIR procedure will be preserved. Retention of natural slopes in the northern portion of the project and following scenic highway visual guidelines will serve to avoid significant impacts.
- A variety of housing types, padding techniques, grading techniques, lot sizes, site design, density, arrangement, and spacing of homes and developments are proposed to avoid significant visual impacts.
- Innovative architectural, landscaping, circulation and site design are proposed to enhance visual quality.
- Safety against unstable slopes or slopes subject to erosion and deterioration has been provided through geotechnical investigation.

Development proposed on the project site includes residential use, employment park, office/commerical use, recreational use, educational use and open space. The SPA plan provides for 283.4 acres of open space, which includes natural open space, landscaped areas and some cut-and-fill landscaped slopes. The open space areas are

indicated on the Site Utilization Plan (Figure 2-4) as OS. The majority of the open space is located in the remaining natural portions of the project site in the north, the natural slopes in the northwestern portion of the site, the Long Canyon area and the areas beneath the SDG&E 230 kV transmission line. The SPA plan provides for 47.5 acres of park lands (Figure 2-4), including Park Parcels P-1 through P-4 in residential and employment park areas, and Parcel P-5, which is intended to be part of a community park in the EastLake Greens area. Three minor parcels totalling 0.8 acre will be located in residential parcels of the EastLake Shores neighborhood. Trails, including bicycle paths and pedestrian walkways which are within the parkway area of public streets and parks, are also proposed. Medians within public streets will be landscaped to provide visual relief in the circulation system.

The open space areas, parklands, trails and street tree plan would serve as buffer zones between the varied land uses of residential and employment park or commercial use, thus eliminating the potential for adverse visual impacts (Figures 3-7 and 3-10).

The proposed SPA will permit a substantial amount of topographic alteration to accommodate urban development. A grading plan is included in the Land Use Section as Figure 3-3.

Areas of lower density residences, as in the EastLake Hills neighborhood, would require grading for roads and relatively small building pads. This grading is not considered significant since the topography would not be altered a great deal. However, the higher intensity residential areas would necessitate larger, flat building pads and parking lots. This would require the filling in of smaller interior drainages and lowering of hilltops.

The SPA Plan calls for the construction of employment park, office/commercial and high density residential structures in EastLake Business Center, EastLake Village Center and EastLake Greens. These uses require a substantial amount of grading to provide for the large building pads required for these uses. The existing hill and drainage topography would be changed substantially to support the proposed high intensity land uses.

The project site is crossed by a high voltage transmission line. The land beneath the transmission line is designated in the SPA Plan as open space, which will also serve as a visual buffer to adjacent residences.

The potential scenic highways crossing the site will not be affected significantly by the project as the project regulations, guidelines and design criteria listed

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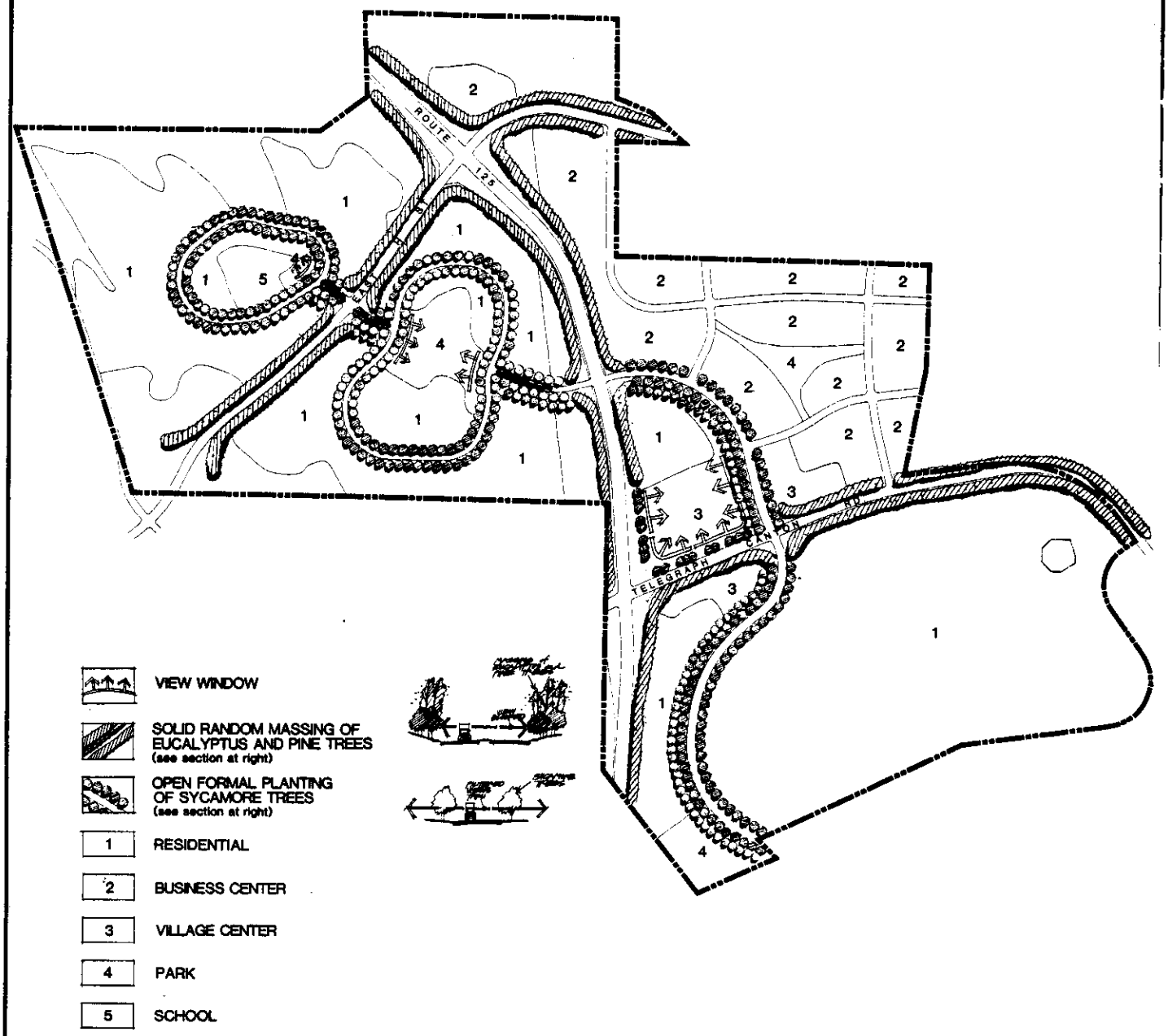

SOURCE: Cinti & Associates, 7/5/84

EastLake I Street Tree Plan

FIGURE 3-10

below will protect the viewsheds of the roadways. The following design criteria is an integral part of the planning process for EastLake I and applies to scenic routes as well as well to provide a common visual theme:

- Land Uses adjacent to the scenic route will vary in type, size and scale to present a series of different visual experiences.
- Continuity shall be achieved through the use of signage, graphics, site furnishing, lighting and landscaping. Extensive signage, graphics, lighting and landscaping plans are provided in the SPA Plan on file with the City of Chula Vista Planning Department.
- Variety and Interest will be encouraged by establishing a distinct identity for individual developments. For example, it may be required that the entry to a development have an entry sign, flowering canopy trees and minimum setback dimension. Distinct identity could be achieved by varying the type of sign, trees and setbacks.
- Circulation - The project site and scenic routes shall accommodate vehicular, bicycle and pedestrian circulation (Figure 3-7). Landscaping and changes in topography will be used to enhance this experience. Equestrian circulation will not be accommodated within the EastLake I project site.
- Signage - A signage program has been developed for use along the scenic highways and within the project site. This will be for the purpose of identity and direction. Signage may include entry signs, street signs, safety signs, or points of interest. The signage provides a continuity of design which emphasizes the visual distinctiveness of the community. Signage must comply with the California Vehicle Code, however, and designs with respect to traffic warning or regulatory signs will be standard without particular distinctiveness.
- Site layouts on adjacent properties will be sensitive to their relationships to the scenic route. Parking will be visually screened and the building and related improvements will vary in setbacks.
- Building Mass - Visual impact will be relieved through the use of sensitive articulation and surface treatments of the building.
- Landscaping shall be categorized into distinctive zones. These will include natural open space, entry and buffer zones, scenic corridors and neighborhood/district zones. A detailed landscaping plan with a

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suggested plant list and matrix is provided in the SPA Plan on file with the City of Chula Vista Planning Department. The concept of landscaping creates a community fabric and provides continuity beyond the individual neighborhood.

- Enriched paving materials will be used where necessary to accent significant areas and increase safety. The amount of enriched paving will be directly related to its significance.
- Lighting Standards will conform to City of Chula Vista Traffic Safety and Engineering Requirements. In areas where special identity is desired, ornamental light standards may be introduced.
- Site furnishings such as benches, bicycle racks, bus stops, etc., shall be coordinated to represent a uniform appearance. Site furnishings on adjacent properties may vary.

Additionally, the proposed 15-acre lake in Parcel P-3 north of Telegraph Canyon Road could have a beneficial impact if landscaped and designed according to the Planned Community regulations. The planned privately owned and maintained lake will be surrounded by open space, residential amenity areas and public promenades. The primary function of the Lake is aesthetics, to create a water-oriented environment. The main objective in Lake design is to keep the lake free of nuisances and as clean and attractive as possible for viewing from the surrounding residences, commercial centers, open space areas and public walkways in the vicinity of the lakes.

The design measures as proposed above would serve to create a visually attractive community and avoid potential visual impacts associated with urban development. The overall visual nature of the project site would be maintained through numerous project design features including grading with balanced cut-and-fill, gentle slope heights, low contoured hills, maintenance of natural vegetation and the maintenance of a curved street and neighborhood pattern rather than a gridded subdivision.

Astronomical Dark Sky: The City of Chula Vista presently uses high pressure sodium vapor lamps as a standard for outdoor illumination. Astronomers have stated that high pressure sodium vapor lamps, if installed throughout the County, will eventually destroy the usefulness of San Diego's observatories.

At present, the City of Chula Vista does not have a program for conversion to low pressure sodium vapor lamps for outdoor illumination. However, the City of San Diego and several other cities or communities within the County are planning or have instituted a conversion program. The eventual complete conversion to low pressure

sodium vapor lamps will significantly reduce sky glow to the observatories. If a conversion program is not instituted for the City of Chula Vista, it will continue to cumulatively add to light pollution above the City, as other areas decrease the light pollution.

Development of EastLake I does comply with the City of Chula Vista's regulation for high pressure sodium vapor lamps. Thus the development would eventually increase night illumination of the area, incrementally reducing dark sky conditions. Although this is considered an adverse impact, it is not considered significant. A County staff report dated April 3, 1984 to the Board of Supervisors indicates that 20 to 30 percent of the night sky light is attributable to street lighting. The EastLake area, which is a considerable distance from the observatories, would represent a very small percentage change to the night sky light.

Design standards for illumination are recommended by scientists at the observatories and are discussed in the mitigation section. These standards, if followed by EastLake, and throughout the County of San Diego, would reduce cumulative levels of light affecting dark sky conditions.

3.4.3 Mitigation Measures

The SPA Plan presents guidelines and design criteria to aid in avoiding potential visual impacts on the project site. Plans detailing proposed landscape design, recreation, open space and trails, conceptual lighting, fencing, and signing have been instituted and are included in detail in the SPA Plan on file with the City of Chula Vista Planning Department.

It is intended that the project's graded areas be contoured to blend with natural landform characteristics. Rounding both vertical and horizontal intersections of graded lanes, obscuring slope drainage structures with a variety of plant material massing, incorporating the use of variable slope ratios for larger slope banks, use of landscape planting for erosion control and to obscure man-made banks, and other similar techniques will be used. Artificially appearing slope banks with rigid angular characteristics will not be permitted. Slope banks in excess of five feet in height will be constructed at a gradient of 2 to 1 (horizontal to vertical) or flatter. Slope bank less than 5 feet in height may be constructed to a steeper gradient of up to 1.5 to 1. A Grading Plan is presented in the Land Use Section as Figure 3-3.

Astronomical Dark Sky: Several mitigation measures are recommended by scientists at the observatories which would reduce project impacts to a level of insignificance, and are included below. Some of the measures are not proposed for EastLake I development, however, as installation of low pressure sodium vapor lamps would require a change in City of Chula Vista lighting standards.

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- Limit the lighting levels by reducing the minimum foot candle requirements, spacing lights further apart, and using lower wattages.
- Choose a lighting system for the area that reduces overall sky glow (i.e., the combination of lower levels, low impact light sources, filtering, shielding, and directing, and through appropriate lamp design).
- Choose a light source(s) that can be dealt with astronomically. Low-pressure sodium lamps are suggested for outdoor lighting.
- Filter light sources to restrict upward and reflecting light in the ultraviolet. Mercury vapor lamps, which still may be used where white light is desired (e.g., tennis courts), must be filtered by coating the inside or outside of the bulb, or by using glass housings which restrict ultraviolet glow.
- Shield luminaires to restrict upward light at all wave lengths. Outdoor light fixtures should be shaded on the top so that their light shines downwards (full-cut off fixtures). This will actually increase the ground illumination while decreasing the amount of light going into the sky. Such fixtures would be used for street lights, parking-lot lights, highway signs and other outdoor illuminators.
- Place time restrictions on the use of outdoor lighting. The critical hours for observing stars is 11 p.m. to 5 a.m. every night. Unnecessary lights at recreational facilities (e.g., tennis courts) should be turned off between these hours.

The lack of significant adverse visual impacts associated with EastLake I precludes the necessity of mitigation measures. Implementation of the design standards, scenic highway guidelines, and various plans delineated in the SPA Plan on file with the City of Chula Vista is the responsibility of the developer. The measures would serve to avoid impacts related to topographic and dark sky alteration.

3.4.4 Analysis of Significance

The proposed project would result in the construction of a planned community on land currently designated for urban development. Even though the visual character of the site would change from agricultural to planned community, the project has incorporated extensive measures to avoid potential visual impacts. These measures include the designation of 284.4 acres of open space, 47.5 acres of parks, 0.8 acre of minor parks and a landscape plan including visual buffer zones, landscape zones, a plant matrix, a street tree plan, trails, signage, a fencing plan, and a grading plan that

emphasizes low, stable slopes. The plan also seeks to maintain the intent of the Scenic Highways Element. No significant visual impacts are expected to occur with complete implementation of the SPA Plan. EastLake I will represent an adverse, though not significant impact to astronomical dark sky.

3.5 GEOLOGY/SOILS

A detailed preliminary geotechnical investigation of the EastLake I project site has been conducted by Leighton and Associates, Inc. of San Diego. The geotechnical report which presents findings, conclusions and recommendations with regard to site planning and development, is summarized below and is on file with the City of Chula Vista Planning Department.

3.5.1 Existing Conditions

The subject property encompasses 1267.9 acres of gently rolling hills. The property is located on three northeast-southwest trending elongated hills that have been dissected by Long Canyon in the northwestern portion of the site, Telegraph Canyon which bisects the entire site, and Poggi Canyon in the southern portion of the site. The hills are gently rounded with natural slope gradients of 8:1 (horizontal to vertical) or flatter, with relatively steeper slopes in the northwest portion of the site. Site elevations range from 370 feet above Mean Sea Level (MSL) in the westernmost portion of the site to 750 feet above MSL in the easternmost portion of the site. Surface drainage is generally to the west and south, with localized runoff into the Otay Reservoirs.

The subject site is located within the coastal subprovince of the Peninsular Range Province. The basement complex consists of Jurassic and Cretaceous plutonic and metavolcanic rocks. These rocks are unconformably overlain by Upper Mesozoic and Cenozoic sedimentary formations. These sediments are composed of detrital marine, lagoonal and terrestrial deposits consisting of sandstones, mudstones and conglomerates. Overlying these deposits are late Quaternary and Recent marine and nonmarine sediments. These Tertiary and Quaternary formations are generally flat-lying, except for locally deformed areas such as Mount Soledad (approximately 20 miles northwest of the site).

The project site is underlain by the Otay and Sweetwater Formations and the Santiago Peak Volcanics. These units are covered by veneers of topsoils, alluvium/colluvium and in the extreme northwest portion of the project site, two small landslides. The geologic units encountered during the subsurface geotechnical investigation are described below in order of increasing age and are indicated on Figure 3-11.

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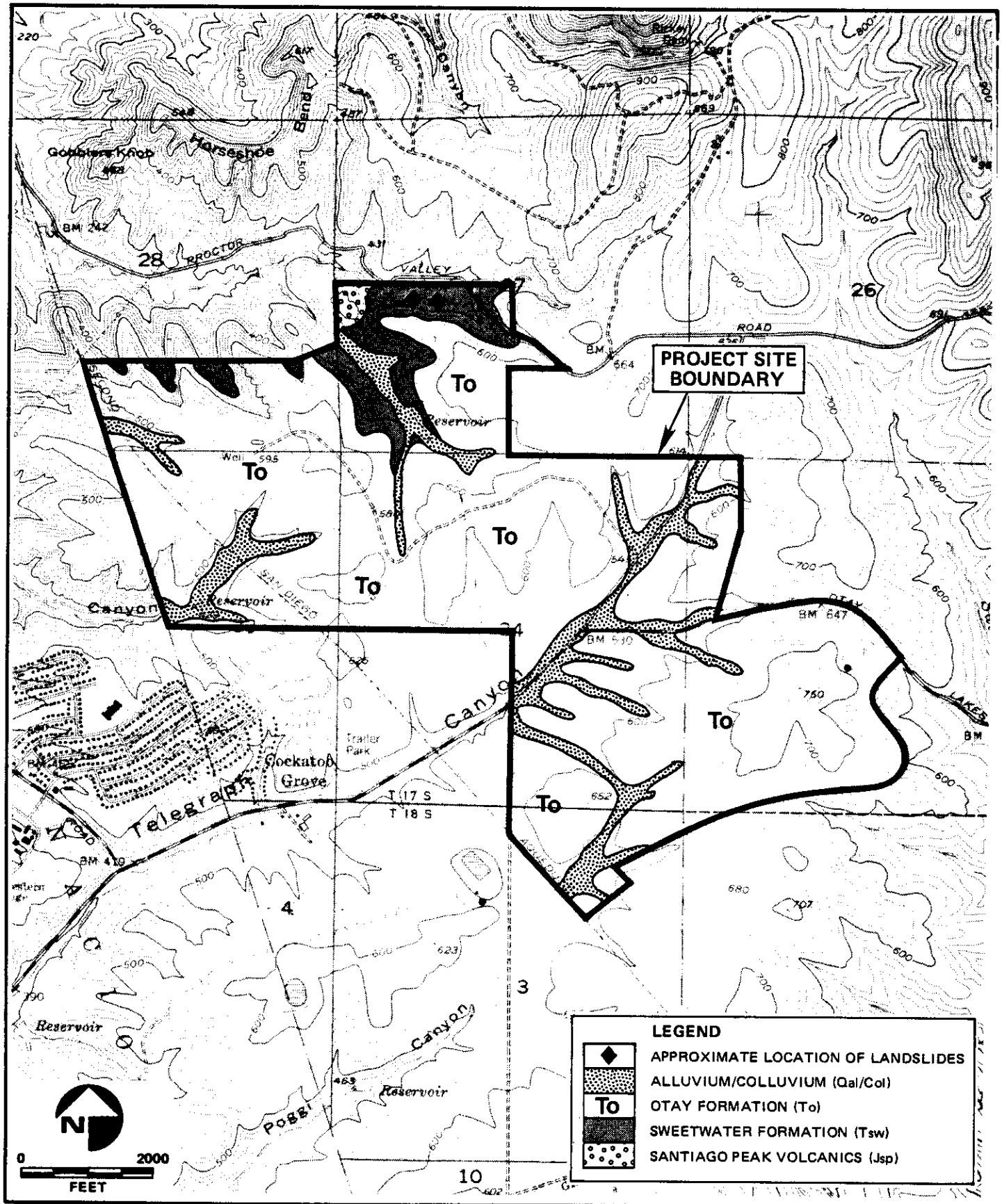

Geologic Formations and Constraints

FIGURE 3-11

Landslide Deposits. Due to the bedrock stratigraphy and the topographic setting, existing landslides on the property appear to be minor. As depicted on Figure 3-11, based on the evaluation of aerial photographs, two small landslides appear to exist in the northern portion of the site.

Topsoil. The site is nearly completed covered by a veneer of topsoil. These soils are composed of highly expansive, black, stiff clays which tend to swell and shrink during wetting and drying periods. The topsoils are typically estimated to be 2 to 3 feet thick.

Alluvium/Colluvium (Qal/Col). Alluvial and colluvial soils occur onsite in the bottom of the major drainages and have accumulated at the base of slopes. These soils consist of sandy clays and clayey sands that are typically unconsolidated, moderately compressible and highly expansive. The thickest alluvial/colluvial deposits appear to be along Long Canyon, Telegraph Canyon and Poggi Canyon and range from an estimated thickness of 5 to 8 feet and may be as much as 15 feet thick.

Otay Formation (To). The Otay Formation is the predominant bedrock formation onsite. The formation was deposited in a shallow marine environment with sediments derived from volcanic ash from the west or south and interfingered with sediments derived from local metavolcanic and granitic terrain from the east. The Otay Formation onsite is composed of massive, light gray to brown, dense to very dense, fine to medium-grained silty sands. In the northern portion of the site, the sand becomes a coarse grained "gritstone." Local cementation of the sand by calcium carbonate was encountered in several test borings. Interbedded in the sands are dense, very fine grained sandy silts. Thin beds of red-brown to white bentonitic clays occur in the sands in the southeastern portion of the site. These clays appear to be remolded, are lenticular in nature, discontinuous and are estimated to be less than 6 inches thick.

Sweetwater Formation (Tsw). The Sweetwater Formation underlies the Otay Formation and was encountered in the extreme northern portion of the site. The Sweetwater Formation was deposited as an alluvial fan deposit. The sediments were derived primarily from the metavolcanic and granitic terrain to the east. The Sweetwater Formation encountered in the northern portion of the project site consisted of red-brown to olive green, fine-grained sandy clays with interbeds of clayey fine to medium grained sands and sandy gravels. The bedding in the Sweetwater and Otay Formations appears to be nearly horizontal with a dip of 3 to 5 degrees to the southwest.

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Santiago Peak Volcanics (Jsp). The Santiago Peak Volcanics consist of very hard, fractured, metavolcanic rock. These rocks outcrop in the extreme northern portion of the site along Proctor Valley Road and from the basement on which the younger sedimentary units have been deposited. The soil cover formed by weathering of the in situ rock ranges from 1 to 2 feet in thickness.

A review of available geologic literature pertaining to the project site indicates that there are no known active faults crossing the property. The nearest major active fault is the Coronado Banks fault located approximately 20 miles west of the subject site.

The closest potentially active fault is the La Nacion fault system, located approximately 2 miles west of the site. The faults encompassing the La Nacion fault system have been considered to be potentially active and have been mapped as a series of en-echelon subparallel faults. The sense of displacement along these faults is normal, with the "down" side to the west.

A previous geothechnical investigation suggests the possible existence of a fault in the northwest corner of the site. This was based on a linear feature observed in a review of aerial photographs of the area. During Leighton and Associates' subsurface geotechnical investigation, two trenches were logged by an engineering geologist and the sedimentary stratigraphy was found to be continuous throughout the lengths of both trenches, indicating no evidence of faulting.

The seismic hazard most likely to impact the project site is groundshaking following a large earthquake on one of the major faults of the region. Major active faults in the San Diego region, distance to the faults and other statistics are included in the complete geotechnical report on file with the City of Chula Vista. The Coronado Banks faults is the most likely to affect the project site with groundshaking, should an earthquake occur on the fault (20 miles from the project site). A maximum probable event on the Coronado Banks could produce a peak horizontal acceleration of about 0.13 g.

Liquefaction and dynamic settlement of soils can be caused by strong vibratory motion in response to earthquakes or machine vibrations. Both research and historical data indicate that loose, granular soils are susceptible to liquefaction and dynamic settlement, while the stability of most silty clays and clays is not adversely affected by vibratory motion. Liquefaction is generally known to occur only in saturated or near saturated soils at depths shallower than about 100 feet. Because of the dense nature of the subsurface soils encountered during the geotechnical investigation

and the depth to the water table, the potential for liquefaction onsite is considered negligible.

Perched groundwater was encountered in the Telegraph Canyon drainage area at a depth of 22 feet below the surface. Natural springs or seeps were not encountered on the site, but are known to occur north of the site. Perched groundwater levels can be expected to fluctuate seasonally. Surface water may exist for short periods of time in the drainages flowing to Long Canyon, Telegraph Canyon and Poggi Canyon during rainy periods. Groundwater is not expected to be a constraint to development of the site.

Potential groundwater resources development for this site, which is located in the Otay Hydrologic Subunit, was not evaluated during the course of this investigation. However, the depth to the regional water table is estimated to be greater than 100 feet, and is estimated to occur between elevations of 200 to 300 feet above mean sea level.

3.5.2 Impacts

Based on the preliminary geotechnical investigation of the project site, it has been determined that development of the site is feasible from a geotechnical standpoint. There appear to be no significant geotechnical constraints onsite that cannot be mitigated by proper planning, design and sound construction practices. The engineering properties of the soil and bedrock materials, topography, surface drainage, and anticipated relatively low degree of seismic risk offer favorable conditions for site development. The following are potential geotechnical concerns:

Landslide Deposits. Landsliding appears to be minor on the site because of the competent nature of the underlying bedrock and the gentle slopes reflected in the topography. The geotechnical investigation indicated the possibility of the existence of two shallow landslides in the extreme northern portion of the site. The slides are located within a 54.7-acre open space (OS-9) in the EastLake Business Center neighborhood. Since construction will not occur in this area, the landslide deposits will not present an impact to development.

Topsoil. The topsoils that mantle the project site are typically highly expansive in nature. The topsoil material would not be suitable for support of conventional shallow foundations or as base for fill soils. Any excavation onsite will include the removal of topsoil, therefore no impacts are expected.

Alluvium/Colluvium (Qal, Col). The alluvial and colluvial soils that occur onsite are compressible in their present state and may settle appreciably under the

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surcharge of fills or foundation loadings. These soils are generally considered acceptable for reuse as compacted fill. Much of the alluvial/colluvial soils onsite are in areas designated as open space (Long Canyon and branches of Proctor Valley). Other areas will be used for slope banks with no foundations. Cut-and-fill areas in Telegraph Canyon will include excavation and the removal of alluvium and colluvium.

Otay Formation (To). The Otay Formation is composed primarily of massive sands with interbedded silts. In localized areas, the sands are well cemented. It is anticipated that excavation can be accomplished with the aid of heavy rippers. It is also anticipated that the excavated materials will be of very good quality for select fill; there are no expected adverse impacts associated with this formation.

Sweetwater Formation (Tsw). The Sweetwater Formation outcrops in the extreme northern portion of the site and consists of massive sands with interbedded clays. It is anticipated that the sands can be excavated by heavy ripping and that the resulting excavated materials will be of good quality for fill construction. The interbedded clays may be highly expansive. The areas of Sweetwater Formation on the project site are designated as open space and thus no impacts are expected.

Santiago Peak Volcanics (Jsp). The metavolcanic rocks that outcrop in the very northern portion of the site are highly fractured and dense. Excavation of these rocks would require blasting or heavy ripping in cut areas; however, the area is designated as open space and no significant impacts are expected.

The maximum anticipated bedrock acceleration on the project site is estimated to be 0.13 g based on a maximum probable earthquake on the Coronado Banks fault. Two-thirds of the maximum anticipated bedrock acceleration may be assumed for the design ground acceleration.

The earthwork to be anticipated will include site preparation, excavation, and compaction of fill. The site preparation will include proper clearing of any existing debris and removal of vegetation and topsoil. Removed materials not suitable for structural backfill will be disposed of offsite, or in approved non-structural areas (i.e. San Diego Gas & Electric easements). Excavation will include the removal of topsoil, alluvium and colluvium.

Cut slopes within the formational materials onsite will be predominantly in sand and silt. The project design grading plan anticipates construction of slope banks in excess of 5 feet in height at a gradient of 2:1 or flatter. Slope banks less than 5 feet in height may be constructed at a gradient of 1.5 to 1 provided the soils engineer determines through compaction testing that such gradient would not create a hazardous

condition, and providing such gradient is approved by the City Engineer. The current tentative maps indicate some slopes up to 3 to 7.5 feet in height proposed for construction at 1.5:1. Final approval of these slopes, which are not in strict conformance with the City's Municipal Code, will be resolved to the satisfaction of the City Engineer. No significant impacts are expected concerning manufactured slopes.

Localized beds of bentonitic clay occur in the southeastern portion of the site in the Otay Formation. These clay beds are highly expansive, possess low shear strengths, and are known to be lenticular and discontinuous. There is the potential for future instability to occur in graded slopes where these clay beds may be exposed or additional weight is applied to slopes by placement of fill.

3.5.3 Mitigation Measures

Mitigation measures dealing with potential impacts associated with the geologic units, seismicity, earthwork, slope stability, fill slopes, shrinkage and bulking, and erosion and seepage are delineated below:

- It is recommended that the highly expansive topsoils be removed and used as deep canyon fills onsite and possibly utilized for construction of the reservoir lining and embankment. Areas requiring removal and replacement of expansive soils should be evaluated by the geotechnical engineer during the site specific tentative grading plan geotechnical investigations.
- Alluvial and/or colluvial soils encountered in areas that will receive fill or other surface improvements should be removed and recompacted in order to mitigate the potential for settlement. The clayey alluvial and colluvial soils are typically highly expansive and are not considered suitable for near surface fill areas where structures and/or pavements are planned. These soils may be removed and used in deep fill areas.
- Otay Formation (To): Proposed slopes in the southeast area of the project site may need to be evaluated prior to development for occurrence of continuous bentonitic clay beds.
- Sweetwater Formation (Tsw) and Santiago Peak Volcanics (Jsp): no significant impacts are expected to these formations, therefore no mitigation measures are necessary.
- Concerning seismicity, the effects of groundshaking on the project site can be mitigated by adhering to the State 1976 Uniform Building

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Code or state-of-the-art seismic design parameters of the Structural Engineers Association of California.

- In regards to earthwork, a site specific geotechnical investigation and an earthwork package will indicate the approximate amount of removals necessary. Onsite excavation of the formational units will provide favorable select material for structural fills. Select fill soils may be mixed with the topsoil, alluvial and colluvial soils for deep canyon fills.
- In the northwestern portion of the project site, areas underlain by granular and slightly indurated sands of the Otay Formation are subject to erosion. Cut-and-fill slopes constructed with these erosion prone materials should be provided with appropriate surface drainage features and landscaped immediately following grading to minimize any erosional damage from surface waters. Typical surface drainage measures indicate installation of drainage terraces at least 6 feet in width at 30-foot vertical intervals on all cut and fill slopes. Standard engineering procedures for grading include the construction of desilting basins. EastLake I will include two large basins onsite and several smaller basins offsite to control erosion.
- Cut slopes requiring special drainage features to mitigate potential impacts of seepage should be evaluated by the geotechnical consultant during site grading. This impact is expected in areas where contact between sands and silts or clays is exposed.
- Foundations and slabs should be designed in accordance with structural considerations and based on the type of soils encountered onsite. Due to the nature of the formational units encountered, conventional continuous or isolated spread footings may be used for support of the proposed structures provided the foundation soils are nonexpansive.

  Expansive soils will require overexcavation and replacement with nonexpansive soils and/or special foundation design. Specific foundation design recommendations will be provided subsequent to performance of further geotechnical investigation at the site.

3.5.4 Analysis of Significance

The geotechnical report included in the SPA Plan indicates that there are no major geologic constraints on the project site that would preclude development. No significant geological impacts are expected to occur with complete implementation of the SPA Plan.

3.6 HYDROLOGY/DRAINAGE

3.6.1 Existing Conditions

Hydrology/Drainage

A preliminary hydrology report was prepared by Van Dell and Associates, Inc., to evaluate the hydrologic impact on the major water courses due to the proposed development of EastLake I. The report is on file with the City of Chula Vista Planning Department and has been used to prepare a portion of the material which follows:

The project site is situated within the watersheds of both the Sweetwater and Otay Rivers. These two watersheds have been designated as Zones 3 and 4, respectively, of the San Diego County Flood Control District. Surface runoff is drained from the total EastLake I project site through five tributary watercourses including Long Canyon, Telegraph Canyon, Proctor Valley, Salt Creek and Poggi Canyon. Of EastLake I's total acreage, 44 percent drains to Telegraph Canyon, 24 percent to Proctor Valley, 19 percent to Long Canyon, 8 percent to Salt Creek and the remaining 5 percent to Poggi Canyon.

At present, the site is being used for dry-farming of grain crops. The slopes over most of the site are gentle enough for cultivation; only the steep canyon slopes in the north and gullies are left in native vegetation. According to the San Diego County Soils Interpretation Study, 92 percent of the project area is cropland, 6 percent is open brush and 2 percent is annual grass. The majority of the site's soils are classified as Soil Group D (89 percent) with the remainder in Soil Group C. These soils have high to very high runoff potential (San Diego County, 1969).

All of the natural water courses on the project site are ephemeral in nature and contain appreciable amounts of runoff only during or immediately after prolonged or intense rainstorms. Earthen dikes have been placed across Proctor Valley and Long Canyon drainage courses in the past in an effort to retain runoff water for ranching purposes. There are no flood prone areas on the project site due to its location at the headwaters of site drainages.

Flooding problems have been associated with several drainages downstream of the project site. In Telegraph Canyon, minor problems have occurred at numerous

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locations between the eastern Chula Vista city limits and the San Diego Bay. The flooding problems are due primarily to reduced capacity of culverts at street crossings. The Army Corps of Engineers has undertaken a public works project to increase the capacity of Telegraph Canyon Channel between Fourth Avenue and I-5 to a capacity equal to the 100 year flood under ultimate conditions. The City of Chula Vista and County of San Diego are participating agencies. Additional improvements in the form of retention basins or other channel modifications are likely to be made as development in the tributary area continues. Such measures should alleviate the flooding problems in Telegraph Canyon. The total drainage area of Telegraph Canyon is 4681 acres of which about 560 acres lie within the project site.

A flood prone condition now exists in the lower Long Canyon and the Sweetwater River-Long Canyon confluence areas. The Chula Vista Golf Course located at this confluence has experienced flooding and sedimentation problems in recent years. Residential flooding has also occurred, during heavy storms, along Acacia Avenue. Acacia Avenue extends approximately 1.1 miles upstream from the basin's confluence. The total drainage area of the Long Canyon Basin is approximately 1151 acres of which approximately 241 acres lie within the project site.

Proctor Valley contains residentially developed areas only in the lower reaches near its confluence with the Sweetwater River. Flooding problems associated with drainage facilities do occur in this area of the County. Of the 4073 acres contained within the Proctor Valley (Sunnyside Basin) drainage, 304 lie within the project site.

Salt Creek and the area on the eastern margin of the project site adjacent to Otay Lakes presently contain no drainage facilities other than culverts beneath Otay Lakes Road and Wueste Road. The Salt Creek drainage includes 3186 acres, of which only 100 acres lie within the project site.

In Poggi Canyon, an open concrete channel drains the lower reaches through the residential area immediately north of its junction with the Otay River. The concrete channel and roadway underpasses have design capacity adequate to contain the 50-year flow under ultimate conditions, although retention basins may be required by the City for future development in upstream areas of the watershed to insure that peak flows do not exceed the design capacity. The Poggi Canyon drainage consists of approximately 2905 acres of which 65 acres lie within the project site.

Regionally, there is potential for flooding of developed areas within the floodplains of the Sweetwater and Otay Rivers. Comprehensive plans for flood control

and drainage improvements have been prepared by the San Diego County Flood Control District for Zones 3 and 4 within which project site tributary drainages lie; however, no major facilities presently exist or are proposed within the site area. Implementation of existing flood control plans downstream should improve the problematic flooding situation which now occurs.

3.6.2 Impacts

Preliminary drainage flows have been calculated so that the hydraulic impact of the project on the five tributary drainage courses can be established (Van Dell and Associates, 1984). Based on topography, land use, soil type, tentative grading and subdivision plans, peak discharge quantities have been estimated for both the undeveloped and developed condition. Additionally, culvert hydraulic performance has been simulated for the Corral Canyon Road - Long Canyon drainage culvert. The resulting estimates of surface water flows at various drainage system concentration points are included in Table 3-9 for both existing and developed conditions. Consistent with City requirements, 50-year frequency flows are given. Significant differences between existing and projected runoff indicate where impacts from flooding may continue to occur without mitigation.

In Telegraph Canyon, up to a 5 percent increase in surface drainage is forecast for the project. This is a small increase amounting to approximately 94 cubic feet per second during a 50-year frequency event. This increase will not cause flooding impacts downstream after planned improvements for Telegraph Canyon are in place.

In Long Canyon, a reduction in peak runoff from existing conditions (by approximately 40 percent) can be achieved through construction of a culvert under Corral Canyon Road (which allows temporary storage of water behind the road embankment). Without such a culvert, however, peak discharges to the Long Canyon would increase by up to 18 percent; possibly exacerbating downstream flooding impacts. Reduction in peak discharges to Long Canyon will substantially reduce flooding hazard.

Similarly, a reduction in peak discharge to Proctor Valley is projected. The location of the EastLake I development in the upper portions of the watershed and the circuitous routing of flows onsite is a reason for the reduced peak flow. It should be noted that runoff volumes will actually increase slightly.

Runoff from EastLake I would not significantly impact existing drainage facilities in Poggi Canyon or Salt Creek as the increase in projected 50-year peak discharge would be less than 1 percent. These tributary drainage basins are substantially undeveloped and do not contain extensive drainage facilities.

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Table 3-9

STORM DISCHARGE FROM PROJECT DRAINAGEWAYS

Watershed	Watershed Area (Acres)	Acres on Project Site (% of Watershed)	50-Year Frequency Discharge Cubic Feet per Second	
			Existing	Developed
CONCENTRATION POINT				
TELEGRAPH CANYON	4,681	560 (12%)		
C. Northeast corner of EastLake I adjacent to Janal Road (onsite)			276	280 (1.5% increase)
D. Southwest boundary of EastLake I south of Telegraph Canyon Road (onsite)			875	920 (5% increase)
E. Southwest boundary of EastLake I south of Telegraph Canyon Road (offsite)			1,070	1,115 (4% increase)
PROCTOR VALLEY	4,073	304 (7%)		
F. North boundary of EastLake I (offsite)			320	300
G. Northwest boundary of EastLake I (offsite)			1,140	1,135
LONG CANYON	1,151	241 (21%)		
A. West boundary of EastLake I (onsite)			360	425 (no culvert) (18% increase) 205 (with culvert)*

Table 3-9

STORM DISCHARGE FROM PROJECT DRAINAGEWAYS (Continued)

Watershed	Watershed Area (Acres)	Acres on Project Site (% of Watershed)	50-Year Frequency Discharge Cubic Feet per Second	
			Existing	Developed
B. West of EastLake I boundary (offsite)			1,050	1,125 (no culvert) (7% increase) 940 (with culvert)*
H. SALT CREEK	3,186	101 (3%)	Less than 1% increase; not significant	
- POGGI CANYON	2,905	63 (2%)	Less than 1% increase; not significant	

*Corral Canyon Roadway culvert discharge.

An additional effect of the project would be to decrease sediment loads in drainages. Due to development of streets, yards, landscaped areas and drainage systems, the amount of silt and debris produced by the site will be significantly less than with the current agricultural use of the property.

3.6.3 Mitigation Measures

- Onsite (and offsite, if necessary) facilities for storm water collection will be designed to handle peak discharges for 50-year frequency flooding events consistent with City policy. With proper design, as determined through the subdivision design review process, onsite flooding potential can be eliminated. Offsite facilities would prevent incremental downstream impacts which could result from either diversion or increase in the rate of runoff from the site. In meetings conducted with the City of Chula Vista and the applicant, offsite downstream improvements have been addressed. It was resolved that interim drainage facilities improvement on EastLake I would include a retention basin in the Commercial Center area, in order that downstream flows would not increase beyond existing levels. Long-term drainage facilities improvements would be financed under a fee district to be instituted by the City of Chula Vista.

- To mitigate increases in peak discharges to the Proctor Valley drainage, an onsite artificial lake will be constructed which will have a secondary purpose of controlling peak discharges. This lake is being designed to cover 15 acres of land with a shoreline perimeter of 4300 lineal feet. The erosion resistant lake edge will have a 6-inch to 12-inch freeboard that can be used to store all the rainfall for recreational use. This reserve capacity will be sufficient to store any major storm event. As specified in the SPA Plan Lake Design, however, surface drainage to the lake will be minimized because of lake water quality considerations.

- Nuisance flow was not specifically addressed in this EIR; however, it is standard procedure that the applicant would comply with City of Chula Vista regulations involving control of runoff from the property. Measures suggested by the City's Engineering Office include collection and treatment of the nuisance flow in a program such as the development's water reclamation plan.

3.6.4 Analysis of Significance

The proposed project has the potential to increase runoff volumes from the project site. With implementation of the drainage improvements required to handle peak 50-year flood flows, potential impacts from project development would be reduced to insignificance.

3.7 AIR QUALITY

3.7.1 Existing Conditions

Climate

The climate in the vicinity of EastLake I and all of San Diego County is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This high pressure cell maintains clear skies for much of the year, drives the dominant onshore circulation and creates two types of temperature inversions that act to degrade local air quality.

The closest and most representative weather monitoring station to the project site is the Chula Vista station located approximately 4.5 miles west of the site. The mean temperature in Chula Vista is 59.9°F; the mean maximum and mean minimum temperatures are 67.3°F and 52.5°F, respectively. Precipitation in the vicinity of the study area averages 10 inches annually, 90 percent of which falls between November and April (University of California, 1970).

Subsidence and radiation inversions act to degrade air quality in the vicinity of EastLake I. Subsidence inversions occur during the warmer months as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air represents a temperature inversion which traps pollutants. The radiation inversion develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. A shallow inversion layer is formed between the two air masses which can trap vehicular pollutants such as carbon monoxide and oxides of nitrogen.

Regulatory Framework

Ambient Air Quality Standards (AAQS) represent the maximum level of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The five primary pollutants of concern for which standards have been established are sulfur dioxide, carbon monoxide, nitrogen oxides, ozone and suspended particulate matter. National Ambient Air Quality Standards (NAAQS) were promulgated by the Environmental Protection Agency (EPA) in 1971 with states retaining the option to develop different (more strict) standards. Due to unique air quality problems in California, the California Air Resources Board (ARB) has developed additional AAQS. Table 3-10 lists the currently applicable state and federal standards.

In San Diego County, it is the responsibility of the Air Pollution Control District (APCD) to ensure that state and national air quality standards are achieved. APCD's current air quality plan, the 1982 SIP Revisions, documents the necessary

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Table 3-10
STATE AND FEDERAL AIR QUALITY STANDARDS

POLLUTANT	AVERAGING TIME	CALIFORNIA STANDARDS		NATIONAL STANDARDS		
		CONCENTRATION	METHOD	PRIMARY	SECONDARY	METHOD
OXIDANT	1 HOUR	0.10 ppm ($200 ug/m^3$)	ULTRAVIOLET PHOTOMETRY	–	–	–
OZONE	1 HOUR	–	–	240 ug/m^3 (0.12 ppm)	SAME AS PRIMARY STANDARDS	CHEMILUMINESCENT METHOD
CARBON MONOXIDE	12 HOUR	10 ppm ($11 mg/m^3$)	NON-DISPERSIVE INFRARED SPECTROSCOPY	–	SAME AS PRIMARY STANDARDS	NON-DISPERSIVE INFRARED SPECTROSCOPY
	8 HOUR	–		10 mg/m^3 (9 ppm)		
	1 HOUR	40 ppm ($46 mg/m^3$)		40 mg/m^3 (35 ppm)		
NITROGEN DIOXIDE	ANNUAL AVERAGE	–	SALTZMAN METHOD	100 ug/m^3 (0.05 ppm)	SAME AS PRIMARY STANDARDS	GAS PHASE CHEMILUMINESCENCE
	1 HOUR	0.25 ppm ($470 ug/m^3$)		–		
SULFUR DIOXIDE	ANNUAL AVERAGE	–	CONDUCTIMETRIC METHOD	80 ug/m^3 (0.03 ppm)	–	PARAOSANILINE METHOD
	24 HOUR	0.05 ppm ($131 ug/m^3$)		365 ug/m^3 (0.14 ppm)	–	
	3 HOUR	–		–	1300 ug/m^3 (0.5 ppm)	
	1 HOUR	0.5 ppm ($1310 ug/m^3$)		–	–	
SUSPENDED PARTICULATE MATTER	ANNUAL GEOMETRIC MEAN	60 ug/m^3)	HIGH VOLUME SAMPLING	75 ug/m^3	60 ug/m^3	HIGH VOLUME SAMPLING
	24 HOUR	100 ug/m^3)		260 ug/m^3	150 ug/m^3	
SULFATES	24 HOUR	25 ug/m^3)	AIHL METHOD NO. 61	–	–	–
LEAD	30 DAY AVERAGE	1.5 ug/m^3)	AIHL METHOD NO. 54	–	–	–
	CALENDAR QUARTER	–	–	1.5 ug/m^3	1.5 ug/m^3	ATOMIC ABSORPTION
HYDROGEN SULFIDE	1 HOUR	0.03 ppm ($42 ug/m^3$)	CADMIUM HYDROXIDE STRACTAN METHOD	–	–	–
VINYL CHLORIDE (CHLOROETHENE)	24 HOUR	0.010 ppm ($26 ug/m^3$)	GAS CHROMATOGRAPHY	–	–	–
ETHYLENE	8 HOUR	0.1 ppm	–	–	–	–
	1 HOUR	0.5 ppm				
VISIBILITY REDUCING PARTICLES	ONE OBSERVATION	IN SUFFICIENT AMOUNT TO REDUCE THE PREVAILING VISIBILITY TO LESS THAN 10 MILES WHEN THE RELATIVE HUMIDITY IS LESS THAN 70%		–	–	–

ppm - PARTS PER MILLION
ug/m^3 - MICROGRAMS PER CUBIC METER
mg/m^3 - MILLIGRAMS PER CUBIC METER

overall strategy and individual tactics by which the San Diego air basin can meet its attainment goal. The SIP Revisions state that if necessary emission reductions are enacted and if regional growth does not exceed anticipated levels, then the basin will no longer experience unhealthful air quality due to emissions generated in the basin. The 1982 SIP Revisions employed the San Diego Association of Governments (SANDAG) Series V growth forecasts which are based on Community and General Plan land use designations to project regional growth. The more recent Series VI growth projections are being used to update the SIP Revisions. Development that seriously departs from these forecasts could generate emissions in excess of what is necessary to attain state and federal standards.

In order for a development such as EastLake I to not interfere with the attainment schedule, any increase in air pollutant emissions attributable to the project must be correctly anticipated by the Series VI growth projections. The Series VI growth projections assumed that development within EastLake I would occur according to the Chula Vista General Plan, as amended to include the EastLake Planned Development in 1982.

Ambient Air Quality

Ambient air quality is monitored by the San Diego APCD at the Chula Vista monitoring station. This station is located approximately 4.5 miles west of EastLake I. In the absence of site specific air quality data, data from the Chula Vista station is assumed to be representative of the site. Table 3-11 summarizes air quality data at the Chula Vista station from 1979 through 1982. More recent data is not yet available from APCD. Table 3-11 indicates that standards for ozone and particulate matter are occasionally exceeded near EastLake I.

3.7.2 Impacts

Air quality emissions resulting from full buildout of EastLake I were estimated based on the assumptions and calculations contained in Appendix B. Stationary source pollutant emissions include those generated by the consumption of natural gas and electricity and the burning of wood in residential fireplaces. Vehicle travel associated with EastLake I would generate mobile source emissions including carbon monoxide, nitrogen oxides and hydrocarbons. Table 3-12 contains a breakdown of the pollutants that would be generated by stationary and mobile sources within EastLake I.

As outlined under "Existing Conditions", the regional air quality management plan (SIP Revision) is based on growth projections derived from community and general plan land use designations. Development seriously departing from the assumed

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Table 3-11

AMBIENT AIR QUALITY SUMMARY
CHULA VISTA MONITORING STATION

Pollutant	Air Quality Standard	Days Over Standard				Maximum Hourly Concentration			
		1982	1981	1980	1979	1982	1981	1980	1979
Carbon Monoxide	1 Hour > 35 ppm	0	0	0	0	9	8	8	11
Nitrogen Dioxide	1 Hour ≥ 0.25 ppm	0	0	0	0	.18	.15	.17	.17
Ozone	1 Hour > 0.12 ppm	5	3	6	6	.20	.17	.16	.22
Sulfur Dioxide	1 Hour ≥ 0.5 ppm	0	0	0	0	.13	.12	.13	.09
Total Suspended Particulates	24 Hours ≥ 100 $\mu g/m^3$	5	3	12	2	112*	160*	194*	102*

*Maximum 24 hour concentration
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter

Source: San Diego APCD, 1982, 1981, 1980, 1979.

Table 3-12

EASTLAKE I
SUMMARY OF PROJECTED EMISSIONS
(Tons/Year)

	Stationary Source Emissions				
	Natural Gas Consumption	Electricity Consumption	Residential Fireplace	Mobile Source Emissions	Total
Carbon Monoxide (CO)	4.14	15.5	49.06	1089.6	1158.3
Nitrogen Oxides (NO_x)	20.75	113.93	0.41	100.9	235.99
Sulfur Dioxide (SO_2)	0.11	1.55			1.66
Hydrocarbons (HC)			2.04	118.51	120.55
Total Suspended Particulate Matter (TSP)	2.07	32.55	8.18		42.8

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designations would be inconsistent with the SIP Revisions and could adversely affect air quality. The SIP Revisions assumed that development on the EastLake I project site would take place according to the approved General Development Plan.

Development according to the SPA Plan would take a different form than what was indicated on the General Development Plan. Overall, however, land use acreages and densities would remain the same. Thus, air quality emissions resulting from project implementation would conform to the SIP Revisions and the project would not impede the attainment of air quality standards within the San Diego air basin.

As outlined above, the proposed project would not adversely affect air quality due to its conformance with the air quality management plan. However, implementation of measures to reduce air quality emissions would offset unforeseen increases in emissions elsewhere in the basin, expedite the attainment of state and federal standards and improve overall air quality.

EastLake I includes general measures to reduce vehicle travel and the consumption of natural gas and electricity. These measures will result in a corresponding decrease in air quality emissions which is considered a beneficial effect associated with project development. Vehicle trips and trip lengths will be reduced by providing a balanced community with residential, employment and service uses in close proximity. Also, an efficient vehicular circulation system will reduce congestion and allow the free flow of traffic. The provision of pedestrian and bicycle trails onsite will facilitate the use of alternative forms of transportation and bus transportation will also be encouraged. Stationary source emissions will be reduced by implementing solar energy resources and through installation of efficient lighting and appliances. Attached units and small lots will be encouraged to reduce energy requirements.

3.7.3 Mitigation Measures

No air quality impacts will result from project implementation, thus no mitigation is required.

3.7.4 Analysis of Significance

The proposed land uses conform to the SIP Revisions and will not adversely affect air quality. Implementation of measures proposed in the SPA Plan to reduce energy consumption will reduce pollutant emissions, which is considered a beneficial effect of the proposed project.

3.8 SOCIOECONOMIC FACTORS

3.8.1 Population

3.8.1.1 Existing Conditions

Based on SANDAG's 1984 Housing Study for the City of Chula Vista, the City of Chula Vista had a total population of 83,927 according to the 1980 Census (SANDAG, 1984:27). This population accounted for 4.5 percent of the 1,861,846 people in the San Diego Region. From 1970 to 1980, the City of Chula Vista has increased in population by 16,026 people. The San Diego Region has increased by 50,399 from 1970 to 1980. The Chula Vista General Planning Area (GPA) had an estimated population of 116,700 in 1980; GPA areas outside the City of Chula Vista had a population of approximately 32,800.

In 1984, the City of Chula Vista had a total population of 89,370 (SANDAG, 1984:27). This population accounted for 4.4 percent of the 2,040,888 people in the San Diego Region in 1984.

Estimated population for the year 2000 for the City of Chula Vista is 102,100 people, an increase of 12,730 people from 1984, or a 14.2 percent increase. Estimated population for the year 2000 for the San Diego Region is 2,699,200 people, an increase of 658,312 people from 1984, or a 32.2 percent increase. The population growth of the City of Chula Vista accounts for 1.9 percent of the San Diego Region population growth for the year 2000 (SANDAG, 1984:49).

3.8.1.2 Impacts

The proposed Sectional Development Plan will allow a maximum of 3683 dwelling units to be built over a period of 8 to 10 years. Based on population generation rates of 2.58 persons per unit, approximately 9503 people will ultimately be housed within the project site.

In 1984, population within the City of Chula Vista is estimated to be 89,370 and by the year 2000, 102,100 (SANDAG, 1984). EastLake I constitutes 10.6 of this population increase in 1984 and 9.3 percent by the year 2000.

Population projections included within the Planned Community regulations adopted for EastLake I estimate the maximum number of dwelling units as 3683, with an estimated population of 9503. The Planned Community projections are delineated below in terms of residential density categories:

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Table 3-13

PLANNED COMMUNITY POPULATION PROJECTIONS

Residential Category	Maximum Dwelling Units	Estimated Population at 2.58 Persons Per Dwelling Unit
1.5	191	493
3.0	171	441
4.5	882	2,276
8.0	1,321	3,408
12.0	641	1,654
20.0	376	970
35.0	101	261
Totals	3,683	9,503

The SPA Plan for EastLake I complies with the population projections outlined for the Planned Community Zoning. Although density is distributed differently in the SPA Plan in comparison to the General Development Plan, the maximum number of dwelling units remains the same and thus the project population remains at 9503 as indicated on Table 3-14. The SPA Plan transfers dwelling units from the mid-range of 5-15 du/acre into both higher and lower density ranges. However, the projected population for East-Lake I SPA complies with population statistics projected for the EastLake Planned Community, thus no significant adverse impacts are anticipated.

Table 3-14

PROJECTED NUMBER OF DWELLING UNITS

Density Range (du/acre)	Projected Number of Dwelling Units in General Development Plan	Projected Number of Dwelling Units in SPA Plan
0-5	1,244	1,799
5-15	1,962	888
15-25	376	891
25-35	101	105
Totals	3,683	3,683

3.8.1.3 Mitigation Measures

Since projected population for the EastLake I SPA complies with population estimates for the Planned Community, the lack of significant adverse impacts precludes the necessity of mitigation measures.

3.8.1.4 Analysis of Significance

The proposed population for EastLake I SPA conforms to population statistics projected for the EastLake Planned Community and would not adversely affect socioeconomic factors.

3.8.2 Housing

3.8.2.1 Existing Conditions

Housing within the City of Chula Vista consisted of 33,021 housing units as of 1984 (SANDAG, 1984:14). Housing within the San Diego Region consisted of 764,122 housing units as of 1984. The City of Chula Vista's housing units represent 4.3 percent of the San Diego Region's housing. Of the City of Chula Vista housing units, single-family homes represent roughly 57 percent of all dwelling units within the city (SANDAG, 1984:17). The vacancy rate for dwelling units within the city is approximately 1.4 percent for 1983 (SANDAG, 1984:24).

Based on SANDAG's 1984 Housing Study for the City of Chula Vista, between 1984-2000, occupied housing will increase by approximately 6779 units to a total of 39,800 units (SANDAG, 1984:49).

3.8.2.2 Impacts

The EastLake I General Development Plan allows for 3683 dwelling units to be built on 1267.9 acres over the next 8 to 10 years. Planned Community Regulations for EastLake I state that:

> each SPA Plan shall contain provisions for 10 percent of the dwellings permitted in the SPA Plan to be developed for low and moderate income persons using HUD standards and based on the City's Affordable Housing Policy. Said affordable housing shall be provided in the residential densities 8 through 35 as shown on the General Development Plan.

The SPA Plan provides for low- and moderate-income housing opportunities to meet the conditions of approval for the project and the goals and objectives stated in the City of Chula Vista Housing Element. The Plan proposes that 10 percent of the total 3683 permitted dwelling units would be provided as low and moderate income housing. The proposed average density range of these units is shown on the Site

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Utilization Plan, Figure 2-4, and can be summarized as follows: 45 percent in single-family detached units; and 55 percent in single or multi-family attached units. The categorization of units complies with the Residential Regulations of the Planned Community Zoning in terms of density, except in Parcel R-8b. Where the PC Regulations call for attached, single-family units, the SPA Plan proposes single-family detached units. This is not considered a significant impact.

The General Development Plan also requires that a minimum number of manufactured housing units equal to 4.5 percent of the total number of dwelling units be provided in the SPA Plan. These units should be developed as condominium or "for sale" lots to provide permanent home sites.

The requirements of the Planned Community Regulations and General Development Plan for manufactured housing will be met within EastLake I residential parcels in the EastLake Shores or Village Center neighborhoods. Currently, there are four candidate sites for manufactured housing being considered by the developer, including residential parcels R-7b, R-8a, R-10 (in EastLake Shores) and parcel R-14 (in the Village Center) (Santos, 1984). The PC Regulations and General Development Plan require a minimum number of manufactured housing units equal to 4.5 percent of the total units, which would be 166 units. It is anticipated that the SPA Plan will meet the manufactured housing requirements as delineated in the PC Regulations and General Development Plan, therefore no impacts are expected.

Based on the SANDAG 1984 Housing Study for the City of Chula Vista, EastLake I would comprise approximately 9.2 percent (3683 units) of the total 39,800 estimated housing units in the City of Chula Vista for the year 2000.

3.8.2.3 Mitigation Measures

Compliance with residential regulations as specified in the Planned Community Zoning and General Development Plan will ensure avoidance of potential impacts associated with housing.

3.8.2.4 Analysis of Significance

Proposed housing for the EastLake I development meets and exceeds the requirements of the Planned Community Regulations and General Development Plan in providing low- and moderate-income housing and manufactured housing. Thus, no adverse impacts related to housing are anticipated.

3.8.3 Employment

3.8.3.1 Existing Conditions

Median household income within the City of Chula Vista during 1980 was $17,997, which was roughly 5.2 percent higher than the San Diego Region of $17,107 (SANDAG, 1984:33). Within the City of Chula Vista 8.3 percent of the work force are military personnel. Military personnel represent 3.6 percent of the total City of Chula Vista population.

Assuming population within the Chula Vista GPA will increase in the year 2000 to 185,700, then the following employment projection can be made. Non-military employment would increase from 34,409 in 1978 to 57,139 by the year 2000. This would represent an additional 22,730 non-military workers, or an increase of 66 percent in the labor force within the Chula Vista GPA by the year 2000.

It should be noted that these figures are based on SANDAG Series V data and SANDAG's 1984 Housing Study for the City of Chula Vista and assume that conditions at that time will remain constant over a 25-year period. Calculations and projections should only be used for general comparison.

3.8.3.2 Impacts

The Planned Community General Development Plan designates 145.3 acres as employment park, 19.2 acres as office, and 15 acres as commercial use, for a total of 179.5 acres of land uses which would generate employment. Light industry generates 25 employees per acre, retail uses generate 36 employees per acre, and office generates 55 employees per acre. Using these generation rates, development of East-Lake I under the General Development Plan would generate approximately 5229 jobs.

The SPA Plan varies slightly from the General Development Plan, in that employment park acreage is increased by 8.4 acres for a total of 153.7 acres. Office/commercial use remains the same at 34.2 acres. A total of 187.9 acres of land uses would generate employment under the SPA Plan. Using the employment generation rates outlined above, development of EastLake I under the SPA Plan would generate approximately 5439 jobs. The SPA Plan will increase the employment potential of the project site, which may be considered a beneficial impact.

3.8.3.3 Mitigation Measures

As the slight increase in employment opportunity under the SPA Plan is considered a beneficial impact, no mitigation measures are necessary.

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3.8.3.4 Analysis of Significance

The slight increase in employment potential for the Eastlake I project site creates a beneficial impact to socioeconomic factors. There are no significant adverse impacts anticipated with implementation of the development.

3.9 FISCAL ANALYSIS

3.9.1 Existing Conditions

A fiscal analysis of the proposed EastLake I SPA Plan was completed by Public Affairs Consultants to determine the net fiscal effect of the project on the City of Chula Vista in terms of ongoing operating revenues and expenditures. The full analysis is included as Appendix C to this report, and is summarized below.

City revenue projections were based on the existing revenue sources of the City. Computer modelling of the relationships of individual revenue accounts to population, land use and other factors was developed to simulate the changes in revenue that could be expected over the development of this project. A separate model of assessed valuation changes was developed to project the effect on City property tax revenues based on the developer's projection of buildout rate and product pricing.

City operating costs were projected based on a computer model that took into consideration the fiscal year 1983-84 budget of the City and comments of various operating department administrators. The model includes an allocation of indirect and overhead costs to direct service activities of the City. In this manner, the projections of added costs attributed to EastLake I will in fact reflect the full costs to the City of accommodating EastLake I.

The total budget of Chula Vista for 1983-84 is $17,930,763. The total direct costs of providing services including park and recreation, public works operations, police, fire, and library operations is $14,102,431. Total overhead costs to the City are $3,828,332.

3.9.2 Impacts

The following table delineates the projected combined operating funds costs and revenues in 5-year intervals (1990, 1995, 2000). The figures reflect the operating costs and revenues by fund as detailed in the Fiscal Analysis, Appendix C. The funds included are the General Fund, Sewer Service Fund, Traffic Safety Fund and State Library Act Fund.

Table 3-15

COMBINED OPERATING FUNDS COSTS AND REVENUES

	Year 1990	1995	2000
Revenues	$1,599,576	$3,063,102	$3,322,253
Costs	$ 830,856	$1,840,729	$1,843,762
Net Revenue	$ 768,720	$1,222,373	$1,478,491

Table 3-16 delineates the operating funds revenues and costs projected in 1997, the year in which all development is projected to be completed and occupied. As indicated, the major revenue sources at buildout will be property taxes, sales taxes and utility user taxes. Major expenditures will be for added police and fire protection.

In addition to the combined operating funds, the City receives significant revenue from Federal Revenue Sharing and State Gasoline Tax. The revenue sharing monies are appropriated at the discretion of the City Council between operating and capital expenditure purposes. The long-term future of Federal Revenue Sharing is uncertain. However, considering its history it seems likely that revenue sharing will continue in some form over the long run.

Table 3-17 shows the projected revenues to the City from Federal Revenue Sharing and State Gasoline Tax in 5-year intervals.

Table 3-17

REVENUE SHARING AND
GASOLINE TAX REVENUE PROJECTIONS

	Year 5	Year 10	Year 15
Revenue Sharing	$82,021	$113,599	$103,576
Gasoline Tax	72,745	97,459	85,277

Based on this analysis, the proposed EastLake I SPA Plan is estimated to provide net revenues and thus a beneficial fiscal impact to the City of Chula Vista.

3.9.3 Mitigation Measures

No significant impacts are associated with the fiscal analysis, therefore no mitigation is necessary. However, the project will be monitored annually to assure positive fiscal effects.

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Table 3-16

PROJECTED REVENUES AND COSTS IN 1997

Revenue Source	
Property Taxes	$1,143,503
Sales Taxes	599,474
Franchise Taxes	122,873
Property Transfer Taxes	20,503
Utility Users Tax	600,458
Business Licenses	55,593
State Subventions	134,576
Other Taxes and Fees	448,921
Interest Earnings	70,286
Total Revenue	$3,195,987
Costs	
Police	$ 575,968
Fire	540,417
Public Works	173,819
Sewer	277,385
Library	143,092
Parks and Recreation	133,083
Total Costs	$1,843,763
Net Benefit	$1,352,224

3.9.4 Analysis of Significance

Based on the fiscal analysis prepared by Public Affairs Consultants, the EastLake I SPA Plan is estimated to provide net revenues which would result in a beneficial fiscal impact to the City of Chula Vista. No significant adverse impacts would be expected concerning the fiscal issue.

3.10 NOISE

An acoustical analysis has been performed for the proposed EastLake I development. The purpose of this study is to project future noise impacts to the site and surrounding environs as a result of the proposed development. Three cases (alternatives) were examined: (1) no project for the year 1995; (2) development of the project including regional growth for the year 1995; and (3) development of the project including regional growth for the year 2005.

The study presented in the following pages consists of an assessment of future noise environment on the proposed development site to determine the suitability for development as planned, an examination of construction noise potential impacts and a review of possible mitigation measures to increase the noise compatibility of the site with future planned uses.

Based on traffic studies projecting future years traffic for the three alternatives studied, noise impact levels in CNEL were calculated by means of the Federal Highway Administration's FHWA Highway Traffic Noise Prediction Model. Both roadways internal to the project and those external to the project were examined. The noise impacts from the project traffic on areas adjacent to the future network of streets were calculated to increase from 0.09 dB CNEL to nearly 15 dB CNEL, depending upon the roadway traffic levels projected. Changes of less than 3 dB CNEL would not be expected to be perceived by most people and therefore are not considered significant. Changes in the distance for each noise contour of significance were calculated for every roadway segment examined in the traffic studies. The results of these studies are presented in the section on noise impacts.

3.10.1 Existing Conditions

The project site is presently undeveloped, and is not subject to substantial noise effects. The only important noise source is vehicular traffic on existing roads through and adjacent to the project site, including Telegraph Canyon Road and Otay Lakes Road. The site is not within the flight path of any local airports, and there are no important stationary sources of noise in close proximity to the site.

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The City of Chula Vista requires that the CNEL of exterior living areas (yards and patios) for residential land uses does not exceed 65 dB(A). In addition, for multi-family residential projects, the California Noise Insulation Standard (California Administrative Code, Title 25, Chapter 1, Subchapter 1, Article 4) requires that interior noise levels in multi-family residential living spaces not exceed a CNEL of 45 dB. The City of Chula Vista also applies this interior noise standard to single-family residential homes. Since typical residential structures with windows open only yield 12 dB of exterior noise exclusion, any units in environments above 57 dB CNEL would require noise control design. With windows closed, typical residential units can be expected to yield up to 22 dB of exterior noise exclusion. Therefore, residential development in areas above 65 dB CNEL could be inappropriate. Exterior noise levels generally considered acceptable for non-residential land uses are as follows: outdoor recreation (parks), 65 dB CNEL; offices, 70 dB CNEL; industrial and commercial, 75 dB CNEL.

3.10.2 Impacts

Neglecting the shielding effects of terrain and future structures, the projected roadway impacts to the proposed project area show that nearly one-quarter to one-third of the site development could be subject to (have the potential to be impacted by) roadway noise levels above the City of Chula Vista's maximum residential limit of 65 dB CNEL. An even greater area would potentially be impacted by roadway noise levels of 57 dB CNEL. The significance of 57 dB CNEL is that it is a threshold criterion above which normally constructed buildings would have to have windows and doors closed to meet State of California and City of Chula Vista requirements for the interiors of habitable structures. Therefore, structures with this level of impact would be required by the City mandate and the Uniform Building Code to have fresh air induction and mechanical air circulation systems. The above potential noise impacts are based upon "line of sight" roadway noise exposure where no intervening topographic or structural shielding interrupts the direct path between the roadway and the building in question. Because the topography may be changed considerably after grading, these impacts to the project will have to be re-examined. In the proposed project area, the residential "no build"-65 dB CNEL contour is projected to vary from 20 to 619 feet from the centerline of the various roads studied.

Roadway Noise: The major, regular source of noise to the proposed project site is expected to be from future years' traffic on the internal circulation roadways and on the existing and planned surrounding roadway network. The only noise effect the proposed project is expected to have on the adjacent community is from additional traffic that it will cause to flow on the adjacent, supporting roadway network.

There are several development scenarios that affect the projected traffic flow rates (ADTs) over each of the roadway links for the circulation network based on the project traffic analysis.

Noise impact calculations for each projected future roadway traffic segment ADT were performed using a proprietary computer program version of the Federal Highway Administration's FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108. The results of these calculations are shown in Table 3-18 for each of the future development alternatives. For comparison purposes, the "no project" alternative has been included in the table. Noise contour distances for a direct unshielded noise source exposure were calculated for several noise impact levels of significance identified in the Noise Criteria section. For comparison purposes, the increase in dB CNEL, reference the "no project" alternative, is presented for a standard distance of 100 feet from the roadway centerline for each project alternative year. Comparison of future noise impact distances with and without the project show the increased reach of the noise impact zone into the community areas adjacent to the roadway.

Unshielded* noise impact zones from the major roadways for the proposed project area have been mapped onto the proposed site plan to show the future worst case land use incompatibility areas, Figures 3-12 and 3-13. In most of the proposed development area building windows could not be left open for any land use, without shielding effects if interior noise criteria were to be met. In future years, windows would have to be closed; therefore, under the conditions of the Uniform Building Code, mechanical ventilation with 20 percent fresh air induction would be required for every habitable room. In areas within the 60 dB CNEL contour, noise related analyses would also have to be performed for each habitable structure to assure that the noise attenuation of the structure would be sufficient to meet interior criteria. The dark areas of Figures 3-12 and 3-13 constitute the zone of incompatibility with the 65 dB CNEL maximum for residential land use.

Construction Noise: The proposed project site is located in a largely uninhabited ranch area where initial construction (development) phases are expected to have minimal effects/impacts on the surrounding areas because of the lack of human habitation, with the exception of the residential uses to the southwest of the project

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*Without the effects of terrain and intervening future structures. Except for the nearest buildings/land uses to the roadways the future years' impacts are often lower than shown because of future development mitigating the potential impacts.

Table 3-18

CNEL NOISE CONTOUR DISTANCES FROM MAJOR ROADWAYS
FOR ULTIMATE TRAFFIC CONDITIONS
ON EASTLAKE I PROJECT

Roadway (Segment)	Ultimate ADT	Distance to CNEL Contour From Roadway Centerline				
		70 dB(A)	65 dB(A)	60 dB(A)	dB at 100 ft	Increase in CNEL dB at 100 feet
OTAY LAKES ROAD*						
South of Bonita Road						
1995 Without Project	23,700	75	224	705	68.63	
1995 With Project	24,500	77	232	729	68.77	0.14
2005 With Project	24,100	76	228	717	68.70	0.07
CORRAL CANYON ROAD*						
South of Central Avenue						
1995 Without Project	6,200	23	47	139	61.46	
1995 With Project	8,000	25	59	179	62.57	1.11
2005 With Project	9,900	28	72	221	63.49	2.03
SR125						
South of SR54						
1995 Without Project	30,200	94	285	898	69.68	
1995 With Project	40,900	124	385	1,216	71.00	1.32
2005 With Project**	—	—	—	—	—	—
South of East "H" Street						
1995 Without Project	7,700	35	77	230	63.75	
1995 With Project	25,000	79	236	744	68.86	5.11
2005 With Project**	—	—	—	—	—	—
EAST "H" STREET						
East of I-805						
1995 Without Project	46,900	142	442	1,394	71.59	
1995 With Project	47,800	144	450	1,421	71.68	0.09
2005 With Project	48,300	146	455	1,436	71.72	0.13
East of SR125						
1995 Without Project	1,600	26	30	54	56.92	
1995 With Project	14,300	50	137	426	66.44	9.52
2005 With Project	35,900	110	338	1,067	70.43	13.51
TELEGRAPH CANYON ROAD						
East of I-805						
1995 Without Project	36,000	145	442	1,394	71.80	
1995 With Project	50,500	199	619	1,955	73.27	1.47
2005 With Project	42,400	169	521	1,642	72.51	0.71

Table 3-18

CNEL NOISE CONTOUR DISTANCES FROM MAJOR ROADWAYS
FOR ULTIMATE TRAFFIC CONDITIONS
ON EASTLAKE I PROJECT (Continued)

Roadway (Segment)	Ultimate ADT	Distance to CNEL Contour From Roadway Centerline 70 dB(A)	65 dB(A)	60 dB(A)	dB at 100 ft	Increase in CNEL dB at 100 feet
East of SR125						
1995 Without Project	2,100	27	33	68	58.11	
1995 With Project	17,600	58	166	524	67.34	9.23
2005 With Project	65,100	195	613	1,935	73.02	14.91
SAN MIGUEL ROAD*						
East of SR125						
1995 Without Project	20,800	34	106	334	65.24	
1995 With Project	21,300	35	108	342	65.34	0.10
2005 With Project	37,700	86	265	837	—	
STREET A						
West of SR125						
1995 Without Project	0	0	0	0	—	
1995 With Project	7,800	14	40	15	60.98	
2005 With Project	13,000	22	66	209	63.20	2.22
STREET B						
East of SR125						
1995 Without Project	1,100	18	20	30	53.95	
1995 With Project	15,200	38	108	338	65.35	11.40
2005 With Project	23,800	56	168	529	67.30	13.35
STREET C						
South of Telegraph Canyon Road						
1995 Without Project	0	0	0	0	—	
1995 With Project	5,500	22	43	123	60.94	
2005 With Project	34,300	78	242	762	68.89	7.95

*Located off project site

**2005 shows SR125 to be a freeway, 30,000 ADT not a comparison.

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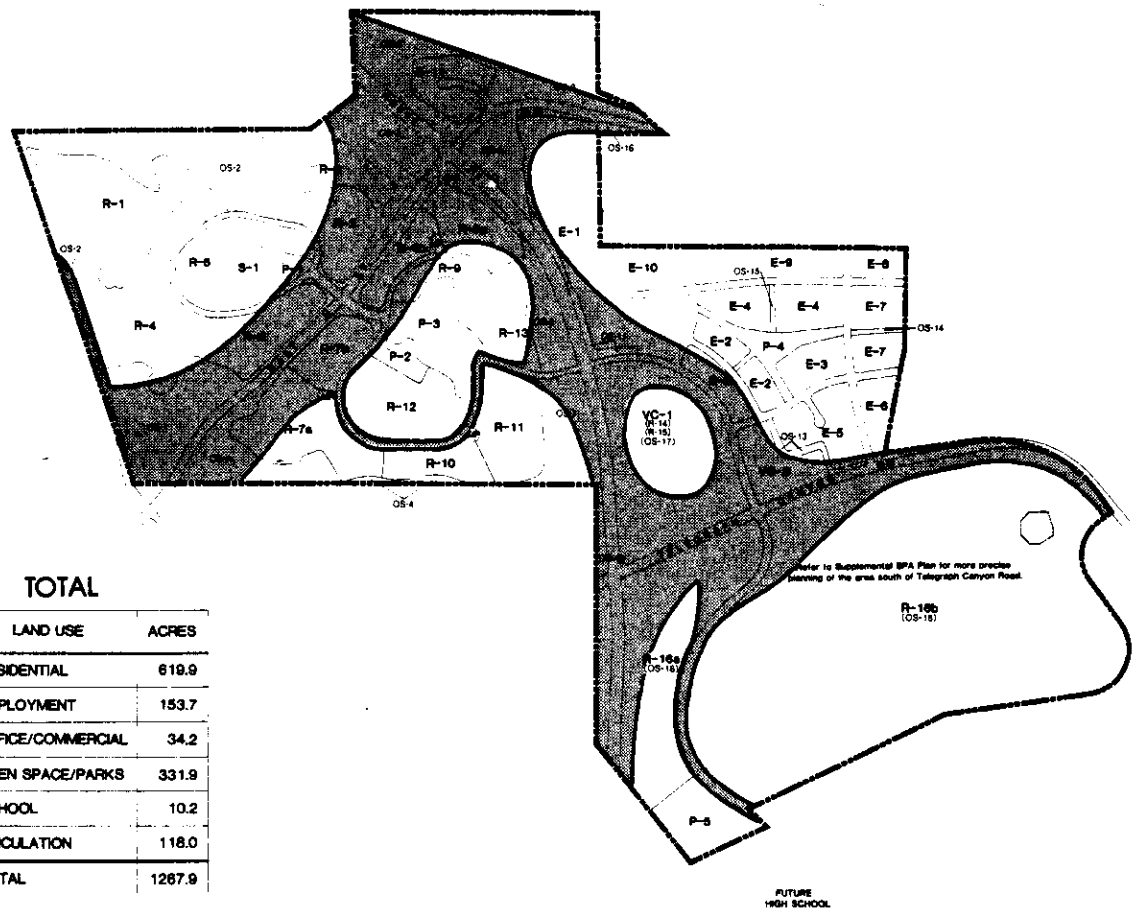


PROJECT TOTAL

LAND USE	ACRES
RESIDENTIAL	619.9
EMPLOYMENT	153.7
OFFICE/COMMERCIAL	34.2
OPEN SPACE/PARKS	331.9
SCHOOL	10.2
CIRCULATION	118.0
TOTAL	1267.9

RESIDENTIAL

PARCEL NO.	ATTACHED (A) DETACHED (D)	DENSITY RANGE	ACRES	TARGET DENSITY	PERMITTED D.U.
R-1	D	0-5	36.2	2.0	73
R-2	D	0-5	16.5	1.8	31
R-3	D	0-5	14.4	4.0	57
R-4	D	0-5	36.7	3.6	133
R-5	D	0-5	15.7	5.0	78
R-6	D	0-5	17.3	5.0	86
Sub-total			137.1	3.3	458
R-7a	D	5-15	25.6	5.2	134
R-7b	A	5-15	10.6	10.0	106
R-8a	A	5-15	14.5	10.0	145
R-8b	D	5-15	8.7	6.1	53
R-9	A	5-15	11.3	10.0	113
R-10	A	15-25	9.5	18.0	171
R-11	A	5-15	19.9	10.0	199
R-12	A	15-25	24.7	17.0	420
R-13	A	5-15	11.3	12.0	136
Sub-total			136.3	10.7	1479
R-14	A	15-25	15.0	20.0	300
R-15	A	25-35	3.0	35.0	105
Sub-total			18.0	22.5	405
TOTAL (north of Telegraph Canyon Rd.)			291.4	8.0	2342
R-16a	A/D	0-25	42.0	4.1	171
R-16b	A/D	0-25	286.5	4.1	1170
TOTAL (south of Telegraph Canyon Rd.)			328.5	4.1	1341
PROJECT TOTAL			619.9	5.9 avg.	3683

OPEN SPACE/PARKS

PARCEL NO.	LAND USE	ACRES
OS-1	OPEN SPACE	29.4
OS-2	OPEN SPACE	56.0
OS-3	OPEN SPACE	11.1
OS-4	OPEN SPACE	20.9
OS-5	OPEN SPACE	6.5
OS-6	OPEN SPACE	11.2
OS-7	OPEN SPACE	17.4
OS-8	OPEN SPACE	11.7
OS-9	OPEN SPACE	54.7
OS-10	OPEN SPACE	1.6
OS-11	OPEN SPACE	4.0
OS-12	OPEN SPACE	1.8
OS-13	OPEN SPACE	2.5
OS-14	OPEN SPACE	0.8
OS-15	OPEN SPACE	0.7
OS-16	OPEN SPACE	0.9
OS-17	O.S. / PUB. FAC.	20.6
OS-18	O.S. / PUB. FAC.	32.6
TOTAL		284.4
P-1	PARK	2.8
P-2	PARK	3.8
P-3	LAKE/PARK	17.5
P-4	PARK	8.5
P-5	PARK	14.9
TOTAL		47.5
S-1	SCHOOL	10.2

(MP) MINOR PARK ±0.5 ac. each
(acreage included in residential parcel)

EMPLOYMENT

PARCEL NO.	LAND USE	ACRES
E-1	EMPLOYMENT	45.2
E-2	EMPLOYMENT	14.5
E-3	EMPLOYMENT	8.0
E-4	EMPLOYMENT	16.7
E-5	EMPLOYMENT	13.2
E-6	EMPLOYMENT	6.0
E-7	EMPLOYMENT	12.0
E-8	EMPLOYMENT	4.5
E-9	EMPLOYMENT	13.9
E-10	EMPLOYMENT	9.7
E-11	EMPLOYMENT	10.0
TOTAL		153.7

VILLAGE CENTER

VC-1	VILLAGE CENTER	61.0
VC-2	VILLAGE CENTER	11.8
TOTAL		72.8

VILLAGE CNTR. BREAKDOWN

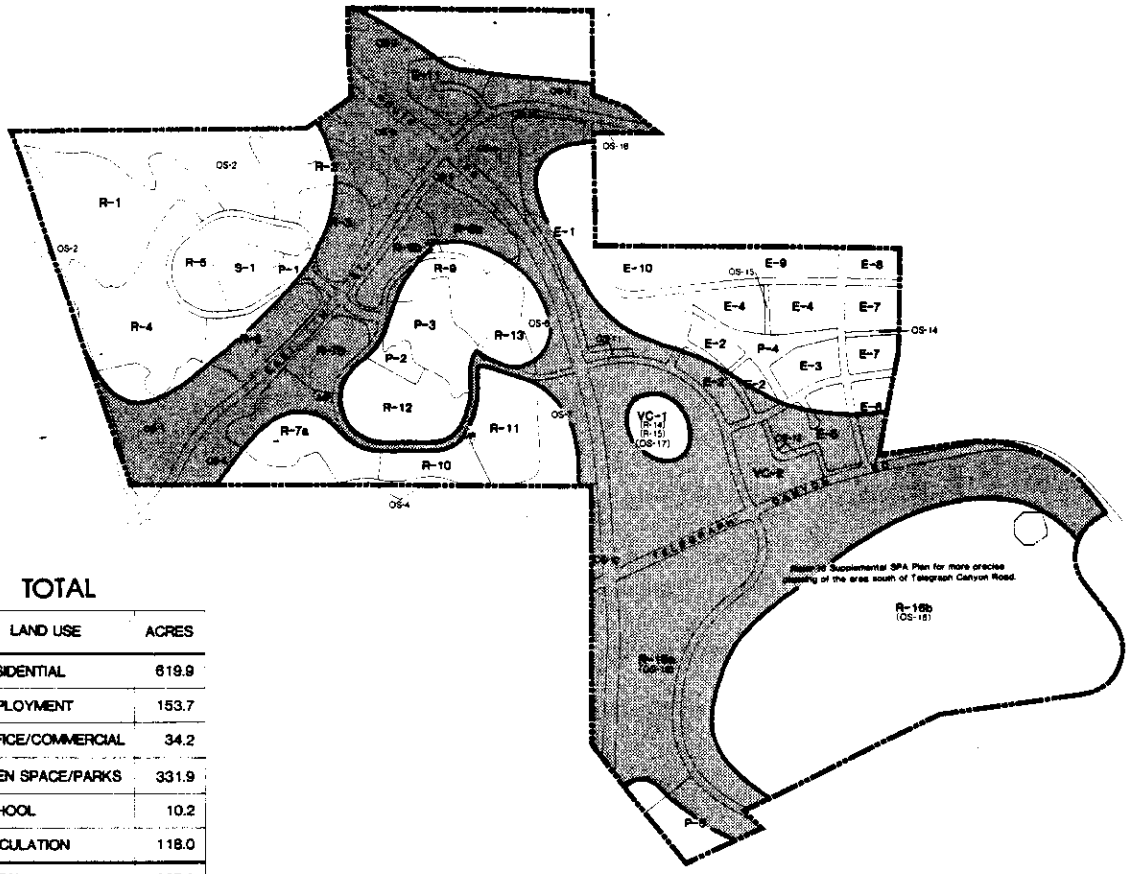
Residential (R-14 & R-15)	18.0
Office / Commercial	34.2
O.S./Pub. Fac. (OS-17)	20.6
TOTAL	72.8

0 2000
FEET

N

Unshielded Traffic Noise Impact Zones above 65 dB CNEL: Year 1995 with Project

FIGURE 3-12



PROJECT TOTAL

LAND USE	ACRES
RESIDENTIAL	619.9
EMPLOYMENT	153.7
OFFICE/COMMERCIAL	34.2
OPEN SPACE/PARKS	331.9
SCHOOL	10.2
CIRCULATION	118.0
TOTAL	1267.9

RESIDENTIAL

PARCEL NO.	ATTACHED (A) DETACHED (D)	DENSITY RANGE	ACRES	TARGET DENSITY	PERMITTED D.U.
R-1	D	0-5	36.2	2.0	73
R-2	D	0-5	16.8	1.8	31
R-3	D	0-5	14.4	4.0	57
R-4	D	0-5	36.7	3.6	133
R-5	D	0-5	15.7	5.0	78
R-6	D	0-5	17.3	5.0	86
Sub-total			137.1	3.3	458
R-7a	D	5-15	25.8	5.2	134
R-7b	A	5-15	10.8	10.0	108
R-8a	A	5-15	14.5	10.0	145
R-8b	D	5-15	8.7	6.1	53
R-9	A	5-15	11.3	10.0	113
R-10	A	15-25	9.5	18.0	171
R-11	A	5-15	19.9	10.0	199
R-12	A	15-25	24.7	17.0	420
R-13	A	5-15	11.3	12.0	136
Sub-total			136.3	10.7	1479
R-14	A	15-25	15.0	20.0	300
R-15	A	25-35	3.0	35.0	105
Sub-total			18.0	22.5	405
TOTAL (north of Telegraph Canyon Rd.)			291.4	8.0	2342
R-16a	A/D	0-25	42.0	4.1	171
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OS-8	OPEN SPACE	11.7
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OS-11	OPEN SPACE	4.0
OS-12	OPEN SPACE	1.8
OS-13	OPEN SPACE	2.5
OS-14	OPEN SPACE	0.8
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OS-16	OPEN SPACE	0.9
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E-7	EMPLOYMENT	12.0
E-8	EMPLOYMENT	4.5
E-9	EMPLOYMENT	13.9
E-10	EMPLOYMENT	9.7
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Office / Commercial	34.2
O.S./Pub. Fac. (OS-17)	20.6
TOTAL	72.8

0 2000 FEET

N

Unshielded Traffic Noise Impact Zones above 65 dB CNEL: Year 2005 with Project

FIGURE 3-13

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site along the existing Telegraph Canyon Road and north. Since initial plans are for a phased growth over a period of several years, considerable potential for construction noise impact exists in later stages when there are a number of people in residence on the site.

Construction is carried out in several reasonably discrete steps, each of which has its own mix of equipment and consequently its own noise characteristics. The phases (some of which can be subdivided) are:

Building Construction
- 1A. Clearing
- B. Demolition
- C. Site preparation

2. Excavation

3. Placing foundations

4A. Frame erection
- B. Floors and roof
- C. Skin and windows

5A. Finishing
- B. Cleanup

City Streets
1. Clearing
2. Removing old roadbed
3. Laying new subbase, paving
4. Finishing and cleanup

Public Works
1. Clearing
2. Excavation
3. Compacting trench floor
4. Pipe installation, filling trench
5. Finishing and cleanup

By defining the construction phases, as above, the variation in site noise output with time can be accounted for. By inventorying the equipment which is to be found at each site in each phase, a representative source level for each phase by analysis can be derived.

Despite the variety in type and size of construction equipment, similarities in the dominant noise sources and in patterns of operation allow the assignment of all equipment to a very limited number of categories. The most prevalent noise source in

construction equipment is the prime mover, i.e., the internal combustion engine (usually of the diesel type) used to provide motive and/or operating power. Engine-powered equipment may be categorized according to its mobility and operating characteristics, as (1) earthmoving equipment (highly mobile), (2) handling equipment (partly mobile), and (3) stationary equipment.

3.10.3 Mitigation Measures

Proposed Development Site

There are two separate areas of noise impact of concern; indoor areas and outdoor areas. Both receive noise intrusion from the same sources, however, indoor areas have a greater capacity for noise mitigation since the exterior shell of most buildings provides the ability to form an airtight barrier between the source and receiver. In areas where the exterior noise exposure at the outside surface of a building is greater than would be attenuated by standard building materials, the windows, doors, and finally the walls and ventilation systems may be improved to reduce exterior noise intrusion. Since open windows typically reduce the net transmission loss of a shell to approximately 12 dB, closing the windows (and doors) will result in an additional noise reduction of 8 dB. However, if windows and doors must be closed to control exterior noise intrusion, the Uniform Building Code requires that a means of mechanical ventilation be provided for each room so that there can be at least two changes of air per hour, with 20 percent of the circulation being made up of fresh outside air.

In addition to building structure changes, both the outside and indoor noise environment may be improved by increasing the setback or spacing between noise sensitive uses and the noise source. Various schemes are also available for shielding noise sensitive areas by blocking the direct line of sight (noise path) from the source to receiver by means of natural topography (i.e., taking advantage of existing landform) or through the use of man-made barriers such as walls, fences, earthen berms, and buildings (either individually, or in rows, or arrays). At the time of actual development, the City must require that all potentially noise impacted development areas incorporate acoustically engineered noise mitigation measures into the plans for existing and future years' noise environments.

Surrounding Community

The noise impact of the proposed development on the future surrounding community is expected to be from increased traffic on the existing and future roadways. Therefore, the same mitigation measures that were named above for the reduction of roadway noise will work for the surrounding community. The reduction of noise

for existing dwellings and roadways receiving additional traffic may be accomplished by adding or improving barriers and/or improving the existing building shell. For new roads and developments, the City must require road locations and elevations to be arranged to minimize noise impacts. The City must also require all potentially noise impacted developments to incorporate acoustically engineered noise mitigation measures into the plans to reduce future years impacts to both exterior and interior spaces.

In conclusion, a number of types of noise mitigation will be required for the proposed project. Subsequent noise studies will need to be prepared when precise plans of development are submitted.

3.10.4 Analysis of Significance

Residential development may be subject to significant adverse noise levels from future traffic conditions unless mitigation is provided. Subsequent noise studies will need to be prepared when precise plans of development are submitted.

3.11 BIOLOGICAL RESOURCES

An extensive discussion of the biological resources encountered on the East-Lake property is provided in the Final EIR for the General Plan Amendment and is hereby incorporated by reference.

3.11.1 Existing Conditions

The majority of the EastLake project site is currently dry-farmed. The only native vegetation remaining is located in the northern portion of the site on slopes south of Proctor Valley in the proposed EastLake Hills neighborhood, and at the east end of Long Canyon in EastLake Hills and EastLake Shores neighborhoods. Biological resources identified in the General Plan Amendment include three catch basins in the northwest extension of the project site, which do not support any developed riparian or marsh habitat. The southern coastal sage low scrub vegetation in the northwest corner of the site is relatively open and heavily grazed except on the steep slopes. No vernal pools were located in the EastLake I project site. Wildlife use of the site is minimal because of its cultivated nature. Wildlife use would be concentrated in the areas of native vegetation in the northwest extension of the site. The temporary presence of frogs and toads could be expected at the three catch basins.

High interest species recorded onsite in the natural northern areas, both north and south of Proctor Valley Road, include the following: Otay Tarweed (Hemizonia conjugens); San Diego Barrel Cactus and Coast Barrel Cactus (Ferocactus viridescens); Variegated Dudleya, San Diego Hasseanthus (Dudleya variegata); Munz Sage (Salvia munzii); and California Adolphia (Adolphia californica).

No rare, endangered, or threatened animal species as listed by the U.S. Fish and Wildlife Service or the California Department of Fish and Game were observed in the project site. Sensitive species not officially designated but considered rare locally include the cactus wren (Campyforhynchus brunneicapillus), located in the northwest reaches of the project site, and possibly the orange-throated whiptail lizard (Cnemido phorus hyperythrus beldingi) in the rock, sandy drainages.

3.11.2 Impacts

The proposed SPA Plan includes 284.4 acres of natural open space. Biological resources identified in the General Plan Amendment and concentrated in the northern and northwestern portions of the project site have been placed in this designated open space (in areas OS-2, OS-3 and OS-9). The project design thus retains the majority of existing native vegetation and the inclusive sensitive species.

One of the three catch basins located on the site will be preserved in open space designated as OS-9, directly south of Proctor Valley Road in the proposed East-Lake Business Center neighborhood. The other two catch basins will be eliminated with construction of East "H" Street and SR125. The impact is not considered significant, however, as the basins are usually dry and do not support any riparian or marsh habitat.

The southern sage low scrub vegetation which supports wildlife use in the project site is located in the designated open space at the northern boundaries of the project. Retaining this area as open space precludes possible impacts to remaining natural vegetation and wildlife onsite. The remainder of the project site has historically been under cultivation and does not support a significant vegetative or wildlife community. Development of the project site thus will not present any adverse biological impacts.

3.11.3 Mitigation Measures

As the majority of sensitive habitat onsite would be retained as natural, undisturbed open space, there will be no significant biological resource impacts. It is recommended that land which is currently in agriculture but is designated for open space be rehabilitated to low scrub to mitigate the loss of any low scrub onsite. Consideration should also be given to creating wildlife zones within the planned manmade lake. The lack of significant adverse impacts concerning biological resources on the project site precludes the necessity of further mitigation measures.

3.11.4 Analysis of Significance

The majority of sensitive habitat onsite would be retained as natural, undisturbed open space in the northern area and Long Canyon area. No biological impacts are expected to occur.

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3.12 ARCHAEOLOGICAL RESOURCES

3.12.1 Existing Conditions

Field investigations of the EastLake study area for the General Plan Amendment EIR revealed one archaeological site within the boundaries of the EastLake I project site. Archaeological site CA-SDi-7179, composed of 5 loci, is located on a ridge system in the northern portion of the project site, within the proposed EastLake Business Center neighborhood. The site is a lithic scatter containing flakes, cores, flake and core tools, groundstone artifact fragments, fire-affected rocks, and some shell.

In September of 1983, a data recovery program of excavation was conducted at Locus B of Site CA-SDi-7179. The program was completed by Larry Seeman Associates, Inc. of Newport Beach, and a report prepared. The results of the data recovery program at Locus B mitigated the adverse effects to the site by SDG&E's Interconnection Project 230 kV transmission line of right of way. No further archaeological excavation was recommended for Locus B.

Excavation results revealed that Locus B of Site CA-SDi-7179 represents an extractive site at which the secondary, but not final, phases of bifacial tool reduction took place. The analysis supports the model of a temporary archaeological site used for the initial reduction and primary trimming of lithic material. The site may represent three phases of prehistoric development: San Dieguito, Millingstone and Late Prehistoric (Larry Seeman Associates, Inc., 1983).

The remaining four loci (A, C, D and E) of Site CA-SDi-7179 remain unmitigated at present.

3.12.2 Impacts

The level of significance associated with archaeological site CA-SDi-7179 on the project site is not considered high enough to warrant preservation of the artifacts onsite.

The four remaining loci of Site CA-SDi-7179 would be impacted by development of the Business Center neighborhood of EastLake I. Locus A would be located in Lots 59 and 60 of the Business Center, designated for employment park use. Loci C and D would be located in portions of Lots 62, 63 and 64 of the Business Center, also designated for employment park use. Locus E is located within open space that will be landscaped as an entry/edge zone and slope bank for SR125 in the northern portion of the project site. The landscaping could involve disturbance of the ground surface of the archaeological site.

3.12.3 Mitigation Measures

Based on the data recovery excavation conducted at Locus B of Site CA-SDi-7179, a two-stage investigative program for Loci A, C, D and E is recommended. The following procedures are suggested for the first stage of the data recovery program.

- Complete site mapping and controlled surface collection of artifacts at each locus.
- Each locus tested for subsurface deposit through a controlled program of making auger holes and two to four 1 x 1-meter units.
- Complete laboratory analysis of the archaeological material recovered.
- An attempt to date each locus and determine its horizontal and vertical extent and relationship to the other loci.
- The information gathered during the course of these tests should be made available in writing to the Regional Office of the State Archaeological Site Survey at San Diego State University.

Once this stage of investigation has been completed, it will be possible to determine if further excavation as mitigation is warranted at each locus, or if the surface collections and test excavations have sufficiently exhausted the information to be gathered at this site and thus make further excavation unnecessary. If further excavation is warranted, then the second-stage investigation would be extended to include salvage of the remaining loci and preparation of the final site report.

3.12.4 Analysis of Significance

Potential impacts to the cultural resources located within the EastLake Business Center Tentative Map area on the EastLake I property should be mitigated as described above. Such mitigation would lessen potential significant impacts of project development.

3.13 PALEONTOLOGICAL RESOURCES

3.13.1 Existing Conditions

As indicated in the Final EIR for the General Plan Amendment for EastLake, no known significant paleontological resource locales are recorded within the project site. It was determined, however, that the Sweetwater Formation (Tsw) on the project site may contain fossiliferous strata. This formation is found primarily along the walls of the Proctor Valley drainage at the northern extension of the project (Figure 3-11).

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3.13.2 Impacts

Additional paleontological data may be provided through examination of future soil and geotechnical borings or cut slopes during grading operations. There is minimal potential for adverse impacts to significant paleontological resources on the project site.

3.13.3 Mitigation Measures

To ensure that significant and potentially unique fossils and paleontological resources are not destroyed without examination and analysis, it is recommended that a qualified paleontologist monitor the initial grading activities in the Sweetwater Formation as it appears in the drainage walls.

The paleontologist should have the authority to temporarily halt grading in and around exposed areas that contain significant resources. If required, the contractor should cease grading operations for a period of time sufficient to allow for thorough examination, and, if necessary, removal of fossil resources. All field notes, photographs and fossil resources should be deposited at a recognized museum or repository.

3.13.4 Analysis of Significance

Paleontological impacts are not considered to be significant on the East-Lake I project site at present. The mitigation measures presented would avoid potential impacts to subsurface resources.

SECTION IV
GROWTH INDUCING IMPACT OF THE PROPOSED PROJECT

The Chula Vista General Plan (1970) estimates that by 1990 nearly half of the City's population will be living in new communities located on the mesas and foothills easterly of Interstate 805. The City is desirous of maintaining control over the pace and quality of development in order to assure that growth is orderly and meets City standards.

Several projects have been proposed in the EastLake vicinity, in the easterly portion of the Chula Vista Planning Area. The El Rancho del Rey Specific Planning Area has been approved for development of a mix of residential and commercial uses on land west of the EastLake site within the City and is currently proposing an overall density increase and addition of industrially designated land. Between El Rancho del Rey and the EastLake site is the Bonita Long Canyon Specific Planning Area which will contain residential development. The Bonita Long Canyon site is adjacent to the northwestern boundary of the EastLake I site, and its western side is contiguous with existing development in the City of Chula Vista.

The EastLake I community would require facilities, improvements and extensions to provide urban levels of service including water, sewer, educational facilities, law enforcement and fire protection. The water system for EastLake I may have potential for growth inducement to the open agricultural land southwest and northeast of the project boundaries. The 930-foot HWL Reservoir and 16 and 20-inch offsite water lines will be located to the northeast while 2 reservoirs and associated pump stations are proposed at the southwest area of the site (Figure 3-8). Connections to these features in the future would facilitate growth for other developments to the southwest and northeast.

The sewer system for EastLake I would have access to existing or proposed municipal sewer lines in the western area of the project (Figure 3-9). There would be no extension of sewer lines across undeveloped land to the northeast, east or south. The sewer system of EastLake I would have an insignificant growth-inducing impact since it would connect with existing or proposed development (i.e., the 15-inch Telegraph Canyon trunk line by way of a 6-inch force main and 8-inch sewer line; Long Canyon; and the proposed 6000-foot long connection to Bonita Meadows sewer).

The development plans for EastLake I call for construction of two elementary schools, one high school and other public facilities. The presence of schools, urban

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levels of police and fire protection, shopping areas and some employment opportunities could encourage growth of undeveloped land to the northeast and southwest by making these facilities more convenient than travelling to other developments further west.

An extensive circulation system is planned as part of the EastLake I SPA Plan (Figure 2-6). The new roads and improvements to existing roadways needed to mitigate significant traffic impacts would provide and improve access to many areas onsite and offsite. SR125 would be a four-lane divided road extending from Route 54 near the Sweetwater Reservoir south through the project site to Route 117 to connect with the second border crossing. SR125 would become a major access route through land which is zoned low- to medium-density residential or future urban, however, so that development of the route through EastLake I would not be considered as a growth-inducing impact. East "H" Street would be extended through land intended for urban development to EastLake I, thus the project site would not be considering as growth-inducing to the roadway. The extension of East "H" Street and two other four-lane collector streets at the northeast boundary of the EastLake I site would have potential for growth-inducement to the undeveloped agricultural land northeast of the site. The additional access to this area would potentially encourage growth to a development which could connect to the road improvements.

The City of Chula Vista has been developing and refining a growth management plan for the past several years. The plan's intent throughout its many revisions has been to direct growth in and around the City in an orderly fashion, to avoid leapfrog development, to protect and preserve the City's amenities, and to guide growth in a general west to east direction. The proposed growth management plan is intended to supplement and complement the City's General Plan, and provide a more specific approach to the direction of growth.

The City's policy is intended to promote incremental growth from west to east, but to remain flexible to allow consideration of topographic, economic, social and other factors relative to new development when necessary. Provision of public facilities concurrent with growth is considered an important guide, as is the idea of urban in-filling as opposed to "leapfrog" development. Preservation of open space and greenbelts by methods such as dedication of land, purchasing of development rights, clustering and zoning practices is recommended as part of growth management in Chula Vista.

The proposed project incorporates some of these measures. The public facilities are planned to be provided concurrently with need; in addition, an open space and park

system is planned. A circulation system including pedestrian and bicycle trails connecting various parts of the community is also planned (Figure 3-7).

Implementation of the proposed EastLake I SPA Plan would not necessarily heighten or hasten development in the project vicinity. The western and northwestern portions of the project site would be contiguous with existing or approved development zoned for low- to medium-density residential use (Figure 3-2). The southern and eastern portions of the project site would be contiguous with land zoned as "future urban" (EastLake). Approval of the EastLake I SPA Plan would have some growth inducing effects on the undeveloped land southwest (south of Telegraph Canyon Road) and northeast of the project boundaries. Approval of the project may also encourage the surrounding planned developments to take place sooner than would otherwise occur without the project.

Since the majority of the project site is surrounded by land zoned for urban growth, the development of EastLake I will not conflict with City of Chula Vista goals for directing growth. The growth management plan was designed with the intent of directing area growth in an orderly fashion from a west to east direction. Development of EastLake I as an urban community in an area projected for future urban growth does not present a significant adverse growth inducing impact.

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SECTION V
ALTERNATIVES TO THE PROPOSED PROJECT

The California Environmental Quality Act (CEQA) requires that an EIR include a discussion of reasonable project alternatives which can avoid or reduce significant adverse environmental impacts associated with the project. The proposed project includes a Sectional Planning Area (SPA) Plan and two tentative maps. The EIR analysis examined potential impacts associated with implementation of the proposed SPA Plan and tentative maps under the Planned Community Regulations and General Development Plan established for the project site. No significant unavoidable environmental impacts have been found to be associated with the proposed project. Nevertheless, an analysis of a "No Project" alternative as required by CEQA is provided. Several alternatives were identified and discussed in the Master Environmental Impact Report for EastLake including: Intensive Agricultural Use; Reduced Residential Density; Development in Conformance with Greenbelt Plan; Partial Development of Project Site; and Redesign of the EastLake Development Plan for Increased Employment Opportunities. For the purposes of this EIR, the reader is referred to the Master EIR for EastLake for discussion of alternatives (City of Chula Vista, 1982b).

5.1 NO PROJECT

Under the "No Project" alternative, the proposed site would remain in a vacant, pastoral condition for an undetermined period of time. The existing land use designation for urban development under the approved General Development Plan would be retained. The proposed SPA Plan and tentative maps would not be implemented. This action would effectively eliminate any impacts attributable to the proposed project as identified in this document, thus avoiding land use, visual, hydrology, air quality, biology and cultural resource impacts; effects on public services; and incremental or cumulative increases in local traffic and ambient noise conditions. However, impacts associated with project development have the potential to be mitigated to a level of insignificance through the incorporation of proper development standards and design measures as delineated under each environmental issue in this EIR.

Because the project site location is contiguous with established and proposed residential areas and is primarily surrounded by low- to medium-density residential and "future urban" land use designations under the Chula Vista General Plan, it appears that similar development on the project site at some point in time would be likely. Therefore, the "No Project" alternative would essentially represent a delay in development.

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SECTION VI
UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

The proposed SPA Plan will result in a change of the rural visual character of the project site. However, with approval of the General Plan Amendment (1982), the project area was rezoned for urban development and as such the SPA Plan does not represent a significant impact to visual quality as designated in the Planned Community Regulations for EastLake I.

Unavoidable significant environmental impacts identified in the Master Environmental Impact Report (City of Chula Vista, 1982b) for EastLake include the following which are discussed in relation to current EastLake I status. The City Council adopted CEQA Findings (EIR 81-03) which included a statement of overriding considerations as required by the California Environmental Quality Act.

Agricultural Resources: The permanent and irreversible loss of agricultural resources was identified in the MEIR and is thus not a new unavoidable significant environmental impact to the EastLake I project. Even though the development will have an impact on agricultural resources, the impact was addressed in the MEIR and the land was subsequently zoned for EastLake development and future urban development.

Air Quality: In the MEIR, the increased density and population associated with EastLake would exceed the projections used for RAQS, and could adversely affect the attainment of air quality goals in the San Diego Region. The air quality emissions resulting from EastLake I, however, would conform to the Air Pollution Control District's SIP Revisions and not impede the attainment of air quality standards within the San Diego air basin.

Growth Inducement: In the MEIR, growth-inducing impacts resulted from the proposal of public utility services being extended to an isolated area surrounded by land designated by the County as intensive agriculture, multiple rural use, and by the City of Chula as agriculture or low and medium residential. Presently, however, most of the land surrounding EastLake I has been zoned low and medium density residential or future urban. With this policy change, proposed public utility service lines run through areas now developed or zoned for development, and do not present a growth inducing impact.

The extensive design elements and conservation measures developed for the EastLake I SPA Plan assure that potential impacts posed by the project are mitigable to a level of insignificance. The unavoidable significant environmental impacts identified

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above were addressed under the Master EIR CEQA Findings, thus no statement of overriding considerations is necessary at this time.

SECTION VII

RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed SPA Plan and future development of the site according to Planned Community Regulations and the General Development Plan would conform to current land use designations for urban community development. The project as proposed would provide a variety of land uses including employment, residential, commercial, open space, educational and recreational uses, in an area within City of Chula Vista boundaries which is growing rapidly.

The following discussion is a summary of the project-related impacts which are significant on a cumulative basis (i.e., when combined with other existing, approved, and reasonably foreseeable future projects). A more detailed impacts analysis for each issue is included in Section III of this EIR. The reader is referred back to the appropriate subsection for the complete analysis.

Transportation and Circulation: The effects of project traffic in combination with ultimate development of the surrounding EastLake vicinity, as discussed in Section 3.2, were evaluated in the traffic analysis completed for this project. The cumulative impacts were considered in that study, and circulation improvements necessary to accommodate total traffic generation were identified. The improvements which will be required as conditions of project development are indicated in the Transportation and Circulation mitigation measures.

Water Availability: Even though the proposed project would incrementally increase regional water consumption, implementation of the SPA Plan would represent an insignificant impact to water availability. The extensive conservation measures and use of reclaimed water for irrigation purposes as proposed by the project would reduce water requirements. Regional water supply impacts are potential with any proposed development unless a solution to the loss of California's imported Colorado River supply is found.

Sewer Services: Development of EastLake I would incrementally reduce the capacity at the Point Loma Metro Sewer System; however, due to the large area served by the system and the comparatively small increase generated by EastLake I, the project will not represent a significant impact to sewer services.

Hydrology/Drainage: Development of the project site could aggravate existing downstream drainage and flooding problems. As a condition of project development,

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engineering and design features will be required to ensure that the volume and rate of runoff does not exceed existing, pre-development levels. With these features, the project will not contribute to cumulative, offsite drainage impacts.

SECTION VIII

IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT

Existing agricultural and visual resources on the project site would be affected by future development; however, the land is currently designated for future urban development under the Chula Vista General Plan, and no significant impacts would result.

Energy and water resources will be committed in site preparation activities (grading and construction) and as part of future site usage. Grading of the project site for development would permanently alter the existing site topography. Cultural and paleontological resources onsite could be adversely affected by future site development; however, it is assumed that data recovery programs and salvage will mitigate any potential losses.

Ambient noise levels in the project vicinity will increase because of higher traffic volumes as well as other noise sources associated with urban activities. Noise levels will not exceed land use compatibility standards if mitigation measures are incorporated.

SECTION IX

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SECTION X

ORGANIZATIONS AND PERSONS CONTACTED

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SECTION XI
CERTIFICATION OF ACCURACY AND QUALIFICATIONS

This environmental impact report was prepared by WESTEC Services, Inc. of San Diego, California. Members of the WESTEC Services' professional staff contributing to the report are listed below:

Ann M. Nussbaum, B.A. Geography
Terri E. Jacques, M.A. History
Mary P. Wright, B.A. Geography
Stephen B. Lacy, M.S. Biology

Consultants involved in preparation of this report include:

Willdan Associates - Transportation and Circulation
Public Affairs Consultants - Fiscal Analysis
Leighton & Associates - Geology/Soils
Acoustical Impacts International - Noise
Van Dell & Associates - Hydrology/Drainage

I hereby affirm that, to the best of our knowledge and belief, the statements and information herein contained are in all respects true and correct and that all known information concerning the potentially significant environmental effects of the project has been included and fully evaluated in this EIR.

Terri Jacques
Terri Jacques
Environmental Analyst

Ann M. Nussbaum
Ann M. Nussbaum
Project Manager

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RESPONSE TO PUBLIC COMMENTS
EASTLAKE I

Section 15088 of the State CEQA Guidelines requires that the Lead Agency respond to letters of comment received as a result of public review of a Draft EIR. Those letters of comment received on the EastLake I SPA Plan Draft EIR are reproduced verbatim on the following pages with responses adjacent to them. A table of contents for the letters of comment is provided for ease of reference. Some of the comments were addressed by revising the EIR text, which is noted in the responses where applicable, while others were responded to in the responses only. The letters of comment and responses, in conjunction with the revised EIR, comprise the Final EIR for the proposed project.

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RESPONSE TO COMMENTS

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STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
6154 Mission Gorge Road
(Mail: Suite 205/Enter: Suite 106)
San Diego, California 92120-1939
Telephone: (619) 265-5114

October 29, 1984

Mr. Douglas D. Reid
Planning Department
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 92010

Dear Mr. Reid:

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR
THE EASTLAKE I SECTIONAL PLANNING AREA PLAN

Page 3-33 of this EIR indicates that the project proponent is exploring the feasibility of irrigating with reclaimed water. The proponent should keep in mind that all reclamation projects must comply with California's wastewater reclamation criteria (Title 22, Division 4, Chapter 3 of the California Administrative Code). Also, the proponent must obtain waste discharge requirements from this Regional Board before using any reclaimed water. (1)

If there are any questions regarding the reclamation criteria or about applying for waste discharge requirements, please call Ms. Betty Meyer at (619) 265-5114.

Very truly yours,

Michael McCann

MICHAEL P. McCANN
Senior Engineer

cc: Ms. Chris Goggin
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

WESTEC Services, Inc.
3211 Fifth Avenue
San Diego, California 92103

ELM:bcs

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CR-1

(1) Clarification noted. The text of the EIR has been revised to incorporate this additional information (page 3-33).

State of California

Business and Transportation Agency

Memorandum

To : Mrs. Terry Roberts
Manager, State Clearinghouse
Office of Planning and Research

Date: November 2, 1984

File : 11-SD-125-Var

From : DEPARTMENT OF TRANSPORTATION
District 11

Subject: SCH #84022206, Eastlake I

Caltrans District 11 comments on the draft EIR for this Sectional Planning Area Plan are as follows:

(2) 1. The road identified as SR 125 throughout the report is evidently an arterial planned by local governments and not, as some readers might mistakenly assume, State Route 125.

(3) 2. If the intention is to build an arterial which can eventually be taken into the State highway system, the facility should be designed with greater shoulder and median width than is shown in Figure 2-6. Instead of the 146-foot right-of-way width shown, Caltrans recommends at least 182 feet plus necessary slopes. For coordination of design details, contact G. V. Smith, District Project Studies Engineer, (619)237-6134.

(4) 3. Figure 2-8 seems to show that right-of-way will be reserved for future ramps at East H Street and at Telegraph Canyon Road. Consideration should also be given to similar reservations for any future grade separation at Street "A".

James T. Cheshire, Chief
Environmental Planning Branch

JTC:MO:sw

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PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

CR-2

(2) Funding of the roadway to be built to serve a similar function to Route 125 would be the responsibility of developers. It is acknowledged that the road identified as SR125 in the EIR would be a local arterial route and not State Route 125.

(3) Route 125 is intended to be built as an arterial which can eventually be taken into the State highway system, and we concur that the facility should be designed with greater shoulder and median width to meet Caltrans regulations. It is anticipated that the Circulation Plan will be revised prior to final map approval. As a result of a subdivision meeting with the City of Chula Vista and the applicant on December 10, 1984, it was agreed that the applicant will provide an ultimate configuration cross-section for SR125 as an eight lane freeway, including reservation for right-of-way and slopes.

(4) We concur that consideration should be given for right-of-way reserve for any future grade separation at Street "A." It is anticipated that the Tentative Map for EastLake Village Center and EastLake Business Center will reflect this revision prior to final map approval.

mtdb Metropolitan Transit Development Board
620 "C" Street, Suite 400, San Diego, California 92101-5368 (619) 231-1466

November 7, 1984 G-E 4

Mr. Douglas Reid
Environmental Review Coordinator
City of Chula Vista
P.O. Box 1087
Chula Vista, CA 92012

Dear Mr. Reid:

SUBJECT: EASTLAKE I SECTIONAL PLANNING AREA PLAN -
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) EIR 84-1

Thank you for the opportunity to comment on the above-referenced DEIR. Our concerns relate to transit impacts and mitigations associated with implementation of the proposed plan.

(5) The DEIR does consider transit mitigations to help avoid significant traffic impacts associated with implementation of the Eastlake plan. We encourage the City to require fully funded developer commitment to implement transit mitigations prior to granting approval to implement the plan. This preapproval commitment could include funding of project-related transit service.

Please contact me if we may be of assistance in addressing the transit aspects of this plan and EIR.

Sincerely,

Helene B. Kornblatt
Senior Environmental/Transportation Planner

HBK:dkd

cc: Mr. Bill Gustafson, SCOOT

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CHULA VISTA, CALIFORNIA

Member Agencies: City of Chula Vista, City of El Cajon, City of Imperial Beach, City of La Mesa
City of Lemon Grove, City of National City, City of San Diego, County of San Diego, State of California

R-11918

CR-3

(5) Transit service mitigation measures for EastLake I have been approved by the City Council through approval of the General Development Plan. Provisions for transit service and facilities were supplied under the Planned Community regulations of the General Development Plan, and included a transit facility in the Village Center area. In addition, during the first years of EastLake I development, subsidies for transit service will be a matter of negotiation with the City of Chula Vista.

San Diego County Archaeological Society, Inc.

Environmental Impact Report Review Committee
P. O. Box A-81106 San Diego, CA 92138

November 12, 1984

To: Mr. Douglas D. Reid
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 92010

Subject: Draft Environmental Impact Report
Eastlake I Sectional Planning Area Plan
EIR No. 84-1

Dear Mr. Reid:

I have reviewed the subject DEIR's cultural resources aspects on behalf of this committee of the San Diego County Archaeological Society.

Based on the contents of the DEIR, we concur in the impact analysis and mitigation measures presented for direct impacts to cultural resources. However, the DEIR does not address potential indirect impacts. These can result from off-site grading, extension of utilities, road construction, or various other possibilities. The City should require the consultant to amend the report to include discussion on indirect impacts. (6)

Thank you for the opportunity to respond to the Eastlake I DEIR.

Sincerely,

James W. Royle, Jr.
Chairperson, EIR Review Committee

cc: SDCAS President
file

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CHULA VISTA, CALIFORNIA

CR-4

(6) Potential direct and indirect cultural resource impacts as a result of offsite grading, extension of utilities, road construction and other offsite improvements will be addressed under a Supplemental EIR when the required offsite improvements are detailed. This additional environmental analysis will be prepared subsequent to East-Lake I final approval.

MICHAEL CHRISTOPHER SPATA
ATTORNEY AT LAW

1007 FIFTH AVENUE · SUITE 808 · SAN DIEGO, CALIFORNIA 92101
(619) 232-6291

November 14, 1984

Honorable Members of the
Planning Commission
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

Re: EastLake I Draft EIR
SPA Plan, Public Hearing
November 14, 1984
Agenda Item No. 2

Dear Commissioners:

(7) Attached are the comments of United Enterprises, Inc. to the Draft Environmental Impact Report for the Sectional Planning Area (SPA) Plan for the EastLake I Project.

Initially, it should be noted that representatives of United Enterprises, Inc. had conferred with Robert Santos, Vice President, of the EastLake Development Company on Tuesday, November 13, 1984 with Patrick J. Patek, Vice President, of United Enterprises, Inc., Mark Longley-Cook and Wendy Longley-Cook of Longley-Cook Engineering, Inc., and Michael Christopher Spata. The purpose of this meeting was to discuss various issues concerning the effects of the EastLake project upon the property of United Enterprises, Inc. The meeting was very informative. And Mr. Santos had provided requested documents in a timely manner for which we are appreciative.

As a result of the meeting, certain concerns of United Enterprises, Inc. were clearly expressed to Mr. Santos. Such concerns included circulation, sewage, drainage, and seepage of reclaimed wastewater from the proposed artificial lakes. Through the interaction with Mr. Santos, certain "understandings" appeared to have been reached; and as such, United Enterprises, Inc. would like to inquire of the applicant whether he intends to favorably address and resolve these concerns.

CR-5

Essentially, the concerns of United Enterprises, Inc. regarding the proposed project can be stated as follows: (1) SR125 must be planned as an eight lane freeway; (2) Telegraph Canyon Road between I-805 and SR125 must be planned as a six lane primary arterial, even though a four lane primary arterial will be constructed between Medical Center Drive and SR125 by 1986; (3) East "H" Street between I-805 and Otay Lakes Road must be planned as a six lane primary arterial; (4) East "H" Street between Otay Lakes Road and SR125 must be planned to accommodate six through lanes of traffic; (5) Detention basins and velocity dissipaters must be installed within the project so as to control run-off velocities to two or three feet per second; (6) Additional sewer lines must be constructed to handle excess capacity, so as to allow equitable allocation of sewer capacity for future development; and (7) Thorough inspection of subsurface lateral and vertical groundwater movement and proper design of its artificial lakes must be undertaken, so as to prevent structural support problems on adjacent areas.

Therefore, by way of summary, if the applicant agrees to support the recommendations submitted by United Enterprises, Inc., which go to the essence of addressing our concerns relating to circulation, sewage, drainage, and adverse groundwater migration, then United Enterprises, Inc. does not oppose the proposed project.

Very truly yours,

Michael Christopher Spata

Michael Christopher Spata

MCS:lg
Attachment

cc: United Enterprises, Inc.
Longley-Cook Engineering, Inc.

R-11918

(7) These comments are a summary of the concerns of United Enterprises, Inc. and are addressed in responses to the following letter from Longley-Cook Engineering, Inc.

LONGLEY-COOK ENGINEERING, INC.
Civil, Environmental and Transportation Engineering; Computer Modeling Consultants
Mark T. Longley-Cook, Ph.D., R.C.E.
Wendy Longley-Cook, Ph.D., P.E., J.D.
L.H. Longley-Cook, M.A., F.C.A.S.
1007 Fifth Avenue, Suite 1110, San Diego, California 92101 (619) 239-3056

UNITED ENTERPRISES, INC.
COMMENTS TO EASTLAKE I
SECTIONAL PLANNING AREA PLAN
DRAFT ENVIRONMENTAL IMPACT REPORT

We have reviewed the Draft Environmental Impact Report and Appendices for the Eastlake Project for the purpose of determining adverse impacts to the property of United Enterprises, Inc. The EIR and the Appendices left us with substantial concerns regarding direct and cumulative impacts which could potentially occur. These impacts related principally to circulation, sewage and drainage.

To identify our concerns, and to resolve the uncertainties remaining after our review of the EIR, we had a very positive meeting with Robert Santos of Eastlake Development Company on November 13, 1984. The meeting was very informative. As a result of that meeting, it is our clear understanding that:

(8)

1. SR 125 is being planned as an 8 lane freeway; and as such, sufficient right of way for the freeway, plus slopes, will be reserved by Eastlake for this ultimate configuration. As a mininum, SR 125 will be constructed as a 4 lane primary arterial prior to 1992, and as a 6 lane primary arterial when needed.

(9)

2. Telegraph Canyon Road between I-805 and SR 125 will be planned as a 6 lane primary arterial, and sufficient roadway and (both onsite and offsite) slope rights of way will be reserved for this ultimate configuration. A 4-lane primary arterial will be constructed between Medical Center Drive and SR 125 by 1986.

(10)

3. East "H" Street between I-805 and Otay Lakes Road will be planned as a 6-lane primary arterial, and sufficient roadway and slope rights of way will be reserved (offsite) for this ultimate configuration.

(11)

CR-6

(8) The applicant has agreed to address the following concerns within the EastLake I development and to work with the City of Chula Vista and related agencies in resolving the offsite traffic concerns.

(9) As a part of the SPA Plan, SR125 within the EastLake I boundaries will be ultimately planned as an eight lane freeway. As a result of a subdivision meeting with the City of Chula Vista and the applicant on December 10, 1984, it was agreed that the applicant will provide an ultimate configuration cross-section for SR125 as an eight lane freeway, including reservation for right-of-way and slopes. Financing of the freeway will be accomplished through the Capital Facilities Financing Plan.

(10) The Planned Community zoning document for EastLake I (approved by the Chula Vista City Council on August 24, 1982) and the EastLake I EIR indicate Telegraph Canyon Road within the project site as a six lane primary arterial east of SR125, with reservation of sufficient roadway and slope right-of-way.

(11) Sufficient roadway and slope right-of-way has been reserved for East "H" Street between I-805 and Otay Lakes Road for ultimate configuration as a six lane primary arterial. Restriping to six lanes will ultimately be necessary. The EastLake I EIR indicates East "H" Street east of I-805 as an ultimate six lane primary arterial on Table 3-4.

4. East "H" Street between Otay Lakes Road and SR 125 will be constructed as a 4-lane primary arterial, but there will be sufficient width, should it become necessary, to either lessen the median width or abolish parking, or both, to accommodate 6 through lanes of traffic.

(12)

5. Detention basins and velocity dissipators will be placed so that velocities onto United Enterprises' property will be controlled to 2 - 3 feet per second.

(13)

6. Pursuant to an agreement with the city of Chula Vista, Eastlake will be allowed temporarily to discharge more of its share into the Telegraph Canyon interceptor sewer. When the line reaches capacity or when other development allocated use of the line is proposed, Eastlake will be required to construct other lines to otherwise dispose of this excess sewage. No vested rights to discharge this excess sewage quantity will accrue to Eastlake.

(14)

7. In lieu of the subsurface conditions encountered by the Otay Water District in the operation of the Land Use Application Area for the Jamacha Basin Wastewater Reclaimation Facility, thorough investigation of subsurface lateral and vertical groundwater movement should be pursued in the design of the lakes proposed on the project so as to avoid structural support problems on adjacent areas. Potential on-site and off-site impacts could occur unless the lakes are properly designed. We have been assured that such studies will be undertaken.

(15)

B.A. Wendy Longley-Cook, PhD, PE Mark T. Longley-Cook, PhD, PE

CR-7

The traffic study conducted for the EastLake I development and SANDAG projections indicate a four lane primary arterial will be sufficient to handle traffic within the EastLake project. The applicant has agreed to provide a wider right-of-way to ultimately accommodate six lanes of traffic east of Corral Canyon Road should it become necessary. Between Otay Lakes Road and Corral Canyon Road, however, existing residential development adjacent to the proposed four lane East "H" Street precludes the ability to ultimately widen the roadway to six lanes. The City of Chula Vista is not in favor of abolishing parking or decreasing median width to accommodate six lanes. This stretch of East "H" Street would be expected to remain four lanes.

(12)

The provision of detention basins and velocity dissipators is a desirable design objective for EastLake I. The applicant has agreed to construct the basin(s) in compliance with City of Chula Vista regulations. Control of runoff velocity is based on soil type and groundcover. It is expected that final approval of runoff control facilities will be resolved to the satisfaction of the City Engineer.

(13)

The applicant has submitted a draft legal agreement to the City of Chula Vista to assure capacity requirements for the Telegraph Canyon interceptor sewer. It is anticipated that the agreement will be adopted prior to final map approval.

(14)

Comment acknowledged. As a part of the project team for the EastLake I development, the applicant is utilizing the services of qualified Civil Engineers, Landscape Engineers, and a Lake Design team to address the lake design and groundwater concerns. A Lake Design plan is provided in Volume II of the SPA Plan.

(15)

R-11918

November 14, 1984

Mr. Douglas D. Reid
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 92010

Re: EastLake I SPA - Draft EIR 84-1

Dear Mr. Reid:

EastLake Development Company has completed our review of the subject Draft EIR prepared by WESTEC Services, Inc. for the City of Chula Vista and is transmitting, herein, our written response as input to the environmental review process.

The Draft EIR is well written but additional clarification or amplification is, in our opinion, appropriate in a few areas. Keyed to the text of the Draft EIR by section number, a brief description of our comments follows:

Section 3.2.2, Street Segments, Page 3-17:

The text of the Draft EIR states that: "Adding existing traffic to the project traffic and comparing this with the City's design standards, several existing streets will have to be expanded. Proposed project traffic will also necessitate a minimum of two lanes for SR 125 north of San Miguel Road and a minimum of four lanes on Telegraph Canyon Road (including East Otay Lakes Road) west of the project." The implication, i.e. that EastLake I will necessitate improvement of SR 125 regardless of other growth in the surrounding area, is both erroneous and misleading. For purposes of the EIR-related traffic analysis by SANDAG, a future SR 125 circulation link was assumed to exist in 1995 and EastLake I traffic, as well as other new traffic growth in the area, was assigned to the network through a computerized mathematical operation based primarily on minimum trip length factors. The magnitude of EastLake I traffic on the link is merely a function of proximity of EastLake I to that assumed link. Deletion of the SR 125 link from the computerized traffic study would have resulted in a redistribution of EastLake I as well as other existing and future trips to other circulation links (more specifically, Telegraph Canyon Road and East "H" Street) with a corresponding increase in projected volumes on those links. Just as any widening of those existing streets would be the result of cumulative traffic, the EIR should be very clear in stating that the alternative improvements to the SR 125 corridor would also be necessary to accommodate cumulative traffic growth in the area.

CR-8

(16)

EASTLAKE DEVELOPMENT COMPANY

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(16) EastLake I is one of several projects which are being proposed to be constructed concurrently. For the purposes of the EIR, it was thus necessary to identify the cumulative impacts of all development and then to identify those specific streets which would be impacted by this project. The statement in the EIR concerning EastLake's contribution to SR125 was intended to identify the order of magnitude of EastLake's contribution to traffic on SR125. With the cumulative development of the area, there would be inadequate capacity on alternate routes for EastLake to use, thus necessitating the construction of a portion of SR125.

Section 3.2.2, Project Level Impacts, Page 3-20:

The Draft EIR text states that: "Project level impacts occur when the design ADT is exceeded or approached, and the majority of the exceedence is contributed by the EastLake I project." This is not a CEQA definition of project level impacts, and, in fact, is misleading for reasons such as those described above. Traffic study findings must be put in context with the basic assumptions inherent to the traffic analysis. Perhaps a more reasonable measure of project level impacts would be to measure the phased growth of traffic from a project as it relates to the traffic improvements that exist at the point in time corresponding to the phase. This is essentially what is accomplished in the context of the Public Facilities Financing Plan. To the extent that traffic improvements are necessary to accommodate incremental growth from the project, the Public Facilities Financing Plan is a mitigation technique.

(17)

Section 3.2.2, Cumulative Level Impacts, Page 3-20:

The definition for a cumulative level impact seems reasonable, but issue must be taken with the use of SANDAG traffic study findings associated with the year 2005. While the traffic run associated with 1995 assumed build-out of EastLake I, the traffic run associated with the year 2005 assumed full build-out of both EastLake I and EastLake II as well as partial build-out of other currently not approved (or proposed) projects. Cumulative level traffic impacts beyond the ultimate build-out of EastLake I are not relevant when assessing the environmental impacts of EastLake I.

(18)

Section 3.2.3, Mitigation Measures, Page 3-25:

With reference to the previous comments, the improvements recommended for the EastLake I project are actually improvements that will be necessary to mitigate cumulative traffic impacts of growth in the area. In this regard, we request that the EIR reference the Public Facilities Financing Plan with its related transportation phasing program as the mitigation measure appropriate to allow implementation of the "circulation element" improvements in a timely manner.

(19)

Section 3.3.3.1.3, Mitigation Measures, Page 3-38:

The Draft EIR should state that it is EastLake Development Company's proposal that adequate land for the necessary school sites be acquired by the school districts through the use of state funding sources or, if such funds are not available, through the proceeds of a Mello-Roos Capital Facilities District Act bond sale.

(20)

Section 3.3.6.2, Impacts, Page 3-44:

The three minor parks in the residential area of EastLake Shores will comprise approximately 1.5 acres versus the 0.8 acres indicated.

(21)

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R-11918

Since there are several projects being proposed concurrently, there needs to be a manner in which the individual impacts can be quantified. Therefore, cumulative impacts were investigated and then roads were identified which would be substantially impacted as a result of EastLake I. We agree that the proposed Public Facilities Financing Plan, if approved and adopted, could serve as an equitable means of mitigating both the project level and cumulative level impacts.

(17)

The year 2005 does include full buildout of both EastLake I and II as well as partial buildout of additional projects. It is felt that cumulative level traffic impacts beyond the ultimate buildout of EastLake I are relevant when assessing the long-term environmental impacts of EastLake I, to ensure adequate measures such as roadway right-of-way and noise mitigation.

(18)

Comment noted. The text of the EIR has been revised to include this information on page 3-25.

(19)

Comment noted. The text of the EIR has been revised to incorporate this change (page 3-38).

(20)

Clarification noted. The text of the EIR has been revised to incorporate this change on pages 3-7 and 3-44.

(21)

Section 3.3.7.3, Mitigation Measures, Page 3-45:

The EastLake I Public Facilities Financing Plan is intended to represent the proposed mitigation measures for various public facility needs including those associated with library services. The Draft EIR should reference and incorporate the Public Facilities Financing Plan as a means to mitigate adverse impacts associated with library services.

(22)

With respect to public facility needs associated with the project, it is important that the final EIR mention that facilities may be financed by one or more means of financing by one or more agencies. It should also mention that a Mello-Roos special tax district is being contemplated.

All of the above comments should be reflected in Section 1.2, Summary of Findings where appropriate.

(23)

If you would like any of the above information amplified or clarified, please contact me at your earliest convenience. Thank you again for the opportunity to comment on the Draft EIR.

Sincerely,

EASTLAKE DEVELOPMENT COMPANY

Robert L. Santos
Vice President

RLS:kaa

CR-10

(22) The EastLake I SPA Plan's Public Facilities Finance Plan outlines mitigation measures for public facility needs, including those associated with library services. The mitigation measures are included below as an expansion to the mitigation measures on page 3-45 of the EIR.

- When EastLake's population reaches 10,000, a community-oriented library will be appropriate and may include use of commercial space at the EastLake Village Center; purchase of a bookmobile using revenues from an Eastern Area Facilities Benefit Assessment District; or construction of a limited addition to the EastLake community meeting center.
- If a need for a branch library is evident with the development of EastLake II, the adverse impact could be mitigated by construction of a separate library facility financed by any combination of Mello-Roos, State library funds, grants and/or specially earmarked City revenues. The community meeting hall may also be expanded to house a branch library using funding sources noted above. The branch library should be a 4000-square foot facility acceptable to the Library Director of the Chula Vista Public Library.

(23) The Summary of Findings, Section 1.2 of the EIR has been modified to reflect the revisions of this letter.