

Addendum to the

**Eastlake Greens Sectional Planning Area
(SPA) Plan and Eastlake Trails Pre-Zone
and Annexation Final Supplemental
Environmental Impact Report**

Case No: EIR-86-4

SCH: 86052803

Prepared for:

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Project No. 30090000

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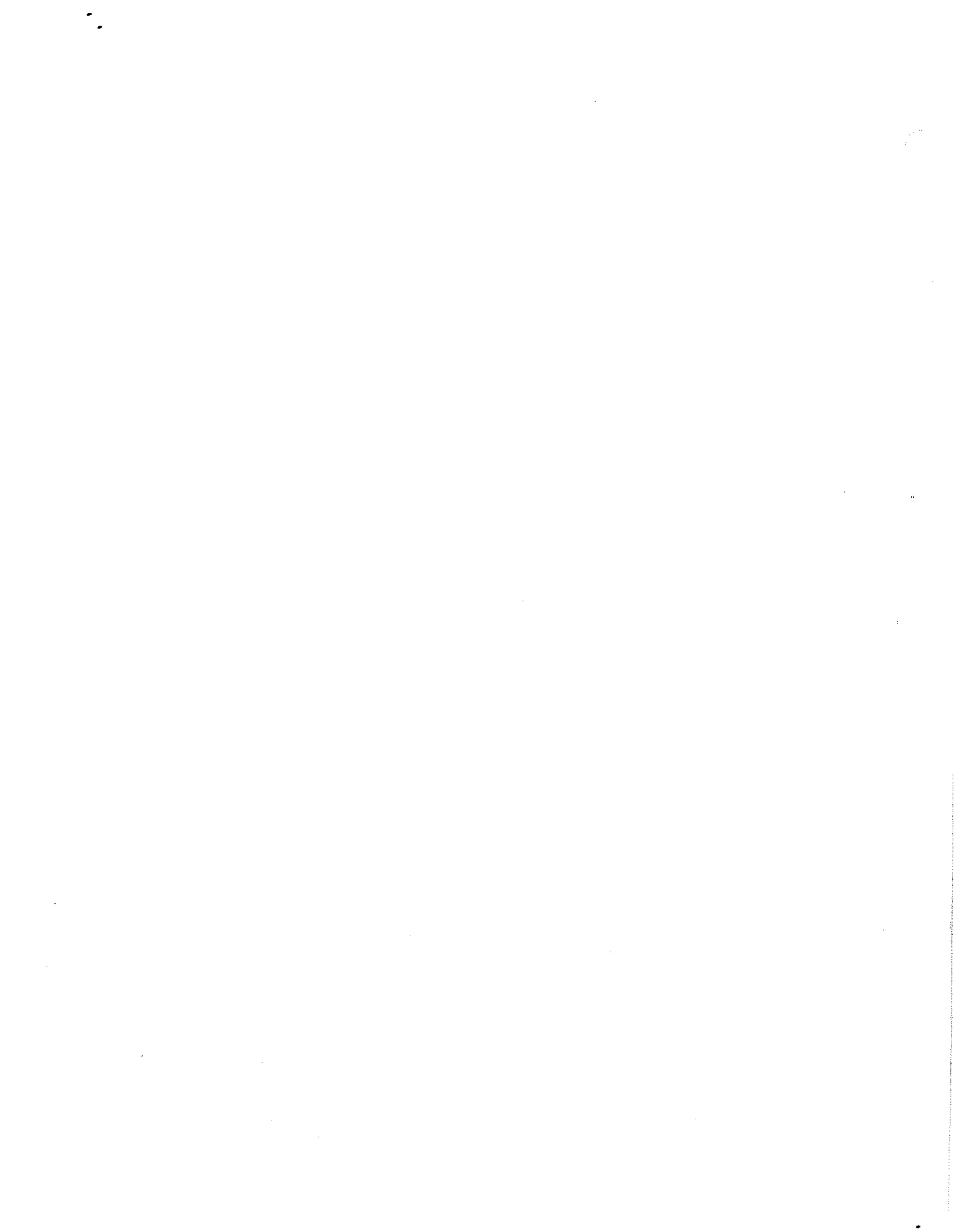
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I. INTRODUCTION

A. PURPOSE AND SCOPE

This Addendum to Supplemental EIR 86-4 is prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines §15164. The purpose of an addendum to an EIR is to comply with CEQA in instances in which the EIR requires "minor technical changes or additions that do not raise important new issues about the project's significant effects on the environment," and where no factors are present that would require the preparation of either a subsequent or supplemental EIR (§15164, [a]). "An addendum need not be circulated for public review but can be included in or attached to the Final EIR" (§15164 [b]). "The decision-making body shall consider the addendum with the Final EIR prior to making a decision on the project" (§15164 [c]).

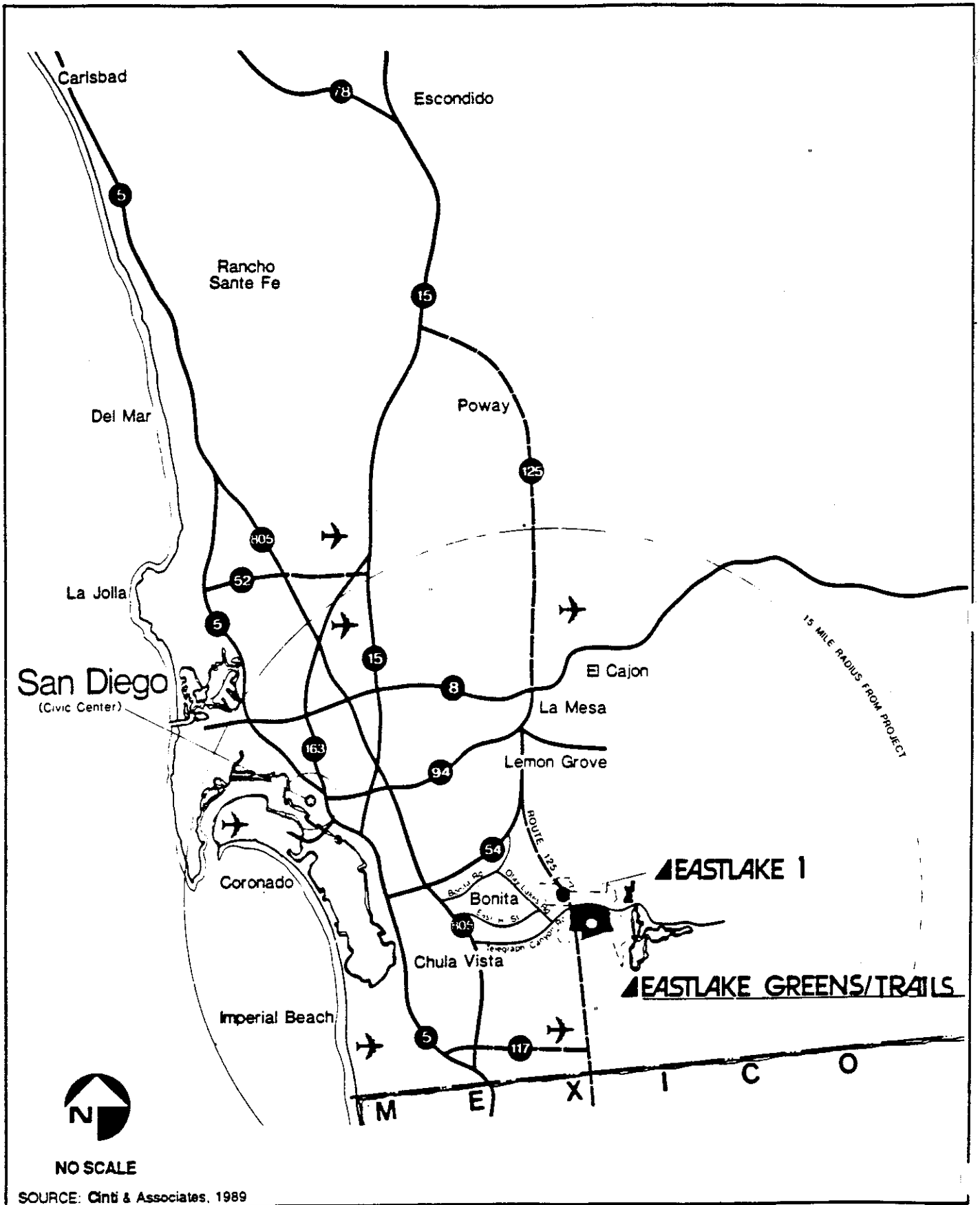
This Addendum to Supplemental EIR 86-4 evaluates additional information on the proposed EastLake Greens 18-hole golf course, clubhouse, and associated facilities. These amenities were evaluated at lesser detail as part of the EastLake Greens Sectional Planning Area (SPA) plan in the Supplemental EIR 86-4. The analysis of the additional information focuses on four issues: noise, light and glare, hazardous materials, and hydrology.

B. BACKGROUND

A Master EIR for all the EastLake development was completed in February 1982. The EIR prepared for EastLake I in January of 1985 reviewed 392.1 acres of the EastLake Greens project. Supplemental EIR 86-4 was prepared in June of 1989 to evaluate environmental effects specific to the EastLake Greens/Trails site. This addendum addresses further refinements to the golf course and amenities included in the EastLake Greens SPA plan.

C. PROJECT DESCRIPTION

The EastLake Greens site lies within the Chula Vista city limits (Figure 1-1). The proposed EastLake Greens project is the second development phase and third residential neighborhood to be developed within the EastLake Planned Community;



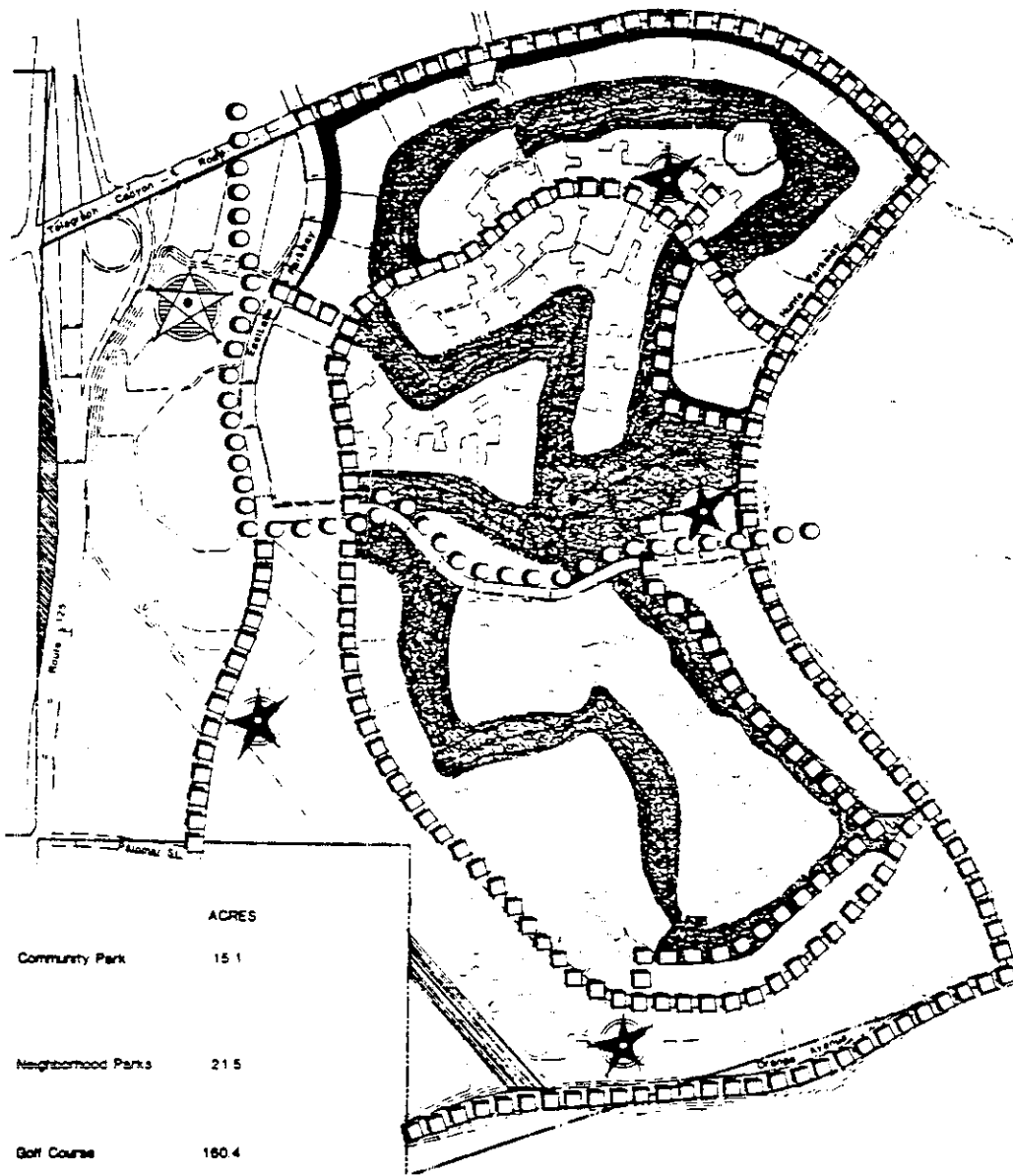
FIGURE







1-1

the first phase was approved by the City of Chula Vista in 1982. The EastLake Greens project includes a detailed Sectional Planning Area (SPA) Plan for the mixed use of 830.5 acres just south of the present EastLake I development in eastern Chula Vista (Figure 1-2).

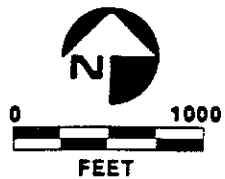
The golf course and associated facilities examined in this addendum are incorporated into the SPA plan (Figures 1-3 through 1-6). The golf course will consist of 18 golf holes, a driving range (with lights for night use), and a practice putting green. The course encompasses approximately 130 acres of grass lined with trees, 6 man-made lakes, and concrete paths for electric golf carts. The course will operate from dawn to dusk, except the driving range, which will remain open until 10:00 p.m. Irrigation of the course would mostly occur during non-use hours. Maintenance will occur during regular hours; maintenance staff will have an 1-acre compound with a 5,000 square foot building (Figure 1-4).

The proposed 16,000 square foot clubhouse will house a restaurant with terrace, bar, kitchen, pro-shop, offices, restrooms and golf cart storage. The clubhouse will operate from dawn to dusk except for occasional events in the evenings. Five tennis courts adjacent to the clubhouse will remain open until 10:00 p.m.

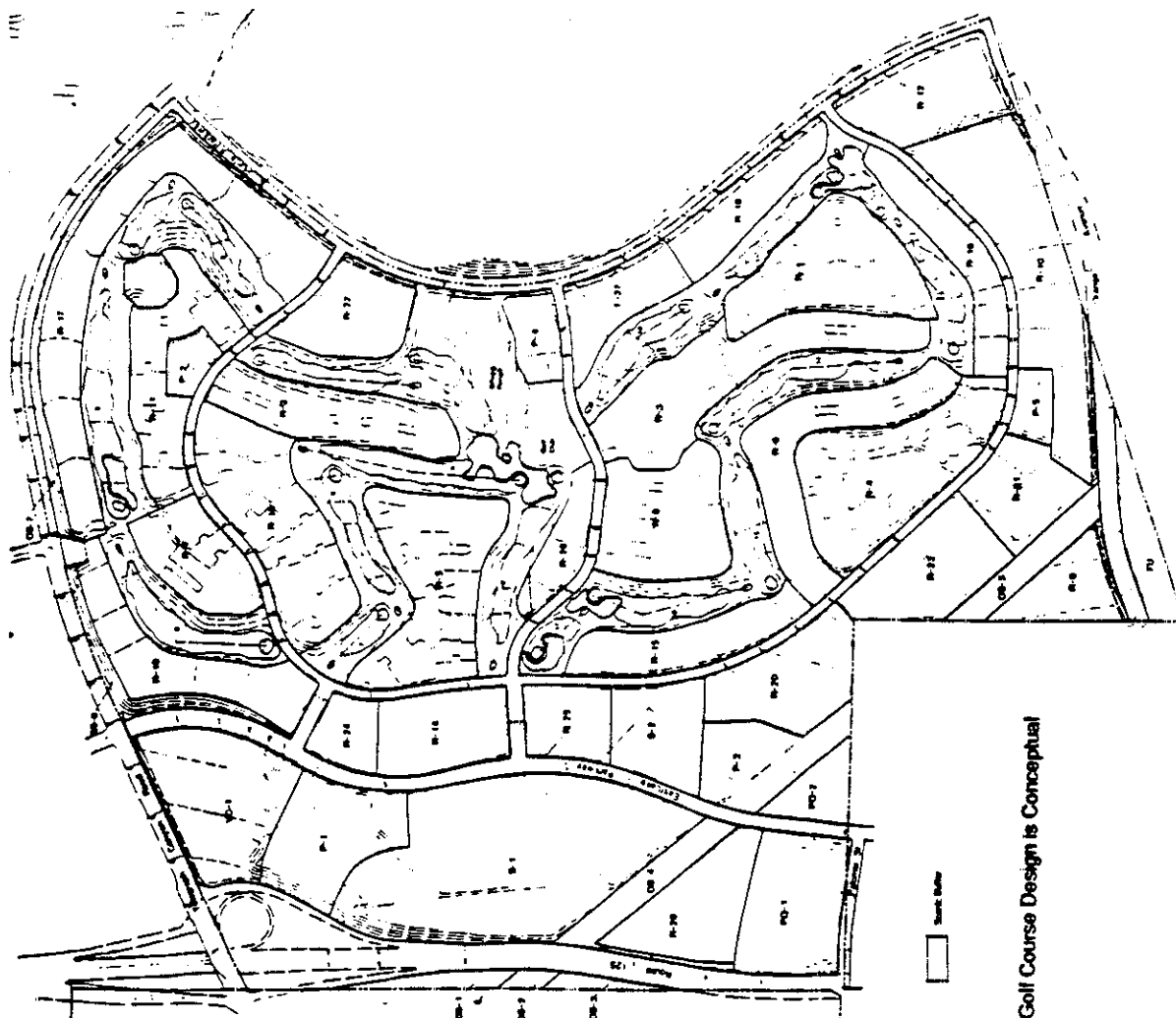


	ACRES
 Community Park	15.1
 Neighborhood Parks	21.5
 Golf Course	160.4
 Open Space	30.8
TOTAL	227.8
 Community Trail (Thematic Corridor)	
 Pedestrian Walks	

NOTE: Golf Course design is conceptual.

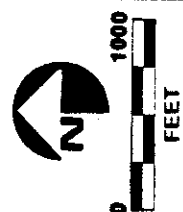


SOURCE: Cinti & Associates, 1989



RESIDENTIAL PARCEL NUMBER	DETACHED OR ATTACHED (A)	EMERGENCY SPACE	ACRES	STAMPY DENSITY (D.F.T.)	STAMPY UNITS
R-1	D	0-60	19.7	17	34
R-2	D	0-60	11.7	28	43
R-3	D	0-60	11.7	28	43
R-4	D	0-60	11.7	28	43
R-5	D	0-60	11.7	28	43
R-6	D	0-60	11.7	28	43
R-7	D	0-60	11.7	28	43
R-8	D	0-60	11.7	28	43
R-9	D	0-60	11.7	28	43
R-10	D	0-60	11.7	28	43
R-11	D	0-60	11.7	28	43
R-12	D	0-60	11.7	28	43
R-13	D	0-60	11.7	28	43
R-14	D	0-60	11.7	28	43
R-15	D	0-60	11.7	28	43
R-16	D	0-60	11.7	28	43
R-17	D	0-60	11.7	28	43
R-18	D	0-60	11.7	28	43
R-19	D	0-60	11.7	28	43
R-20	D	0-60	11.7	28	43
R-21	D	0-60	11.7	28	43
R-22	D	0-60	11.7	28	43
R-23	D	0-60	11.7	28	43
R-24	D	0-60	11.7	28	43
R-25	D	0-60	11.7	28	43
R-26	D	0-60	11.7	28	43
R-27	D	0-60	11.7	28	43
R-28	D	0-60	11.7	28	43
R-29	D	0-60	11.7	28	43
R-30	D	0-60	11.7	28	43
R-31	D	0-60	11.7	28	43
R-32	D	0-60	11.7	28	43
R-33	D	0-60	11.7	28	43
R-34	D	0-60	11.7	28	43
R-35	D	0-60	11.7	28	43
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R-45	D	0-60	11.7	28	43
R-46	D	0-60	11.7	28	43
R-47	D	0-60	11.7	28	43
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R-69	D	0-60	11.7	28	43
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R-82	D	0-60	11.7	28	43
R-83	D	0-60	11.7	28	43
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R-88	D	0-60	11.7	28	43
R-89	D	0-60	11.7	28	43
R-90	D	0-60	11.7	28	43
R-91	D	0-60	11.7	28	43
R-92	D	0-60	11.7	28	43
R-93	D	0-60	11.7	28	43
R-94	D	0-60	11.7	28	43
R-95	D	0-60	11.7	28	43
R-96	D	0-60	11.7	28	43
R-97	D	0-60	11.7	28	43
R-98	D	0-60	11.7	28	43
R-99	D	0-60	11.7	28	43
R-100	D	0-60	11.7	28	43
SUB-TOTAL			4112 AC		3000 U.

NON RESIDENTIAL PARCEL NUMBER	LAND USE	ACRES
NC-1	WELLAGE CENTER	19.8
PO-1	PUBLIC/CLUBS PUBLIC	17.3
PO-2	PUBLIC/CLUBS PUBLIC	4.8
B-1	HIGH SCHOOL	49.2
B-2	ELEMENTARY SCHOOL	100
A-1	COMMUNITY PARK	15.1
A-2	NEIGHBORHOOD PARK	3.8
A-3	NEIGHBORHOOD PARK	11.8
A-4	NEIGHBORHOOD PARK	8.8
A-5	NEIGHBORHOOD PARK	2.8
A-6	NEIGHBORHOOD PARK	2.8
OS-1	OPEN SPACE	1.1
OS-2	OPEN SPACE	1.1
OS-3	OPEN SPACE	1.1
OS-4	OPEN SPACE	1.1
OS-5	OPEN SPACE	1.1
OS-6	OPEN SPACE	1.1
OS-7	OPEN SPACE	1.1
OS-8	OPEN SPACE	1.1
OS-9	OPEN SPACE	1.1
OS-10	OPEN SPACE	1.1
OS-11	OPEN SPACE	1.1
OS-12	OPEN SPACE	1.1
OS-13	OPEN SPACE	1.1
OS-14	OPEN SPACE	1.1
OS-15	OPEN SPACE	1.1
OS-16	OPEN SPACE	1.1
OS-17	OPEN SPACE	1.1
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OS-60	OPEN SPACE	1.1
OS-61	OPEN SPACE	1.1
OS-62	OPEN SPACE	1.1
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OS-73	OPEN SPACE	1.1
OS-74	OPEN SPACE	1.1
OS-75	OPEN SPACE	1.1
OS-76	OPEN SPACE	1.1
OS-77	OPEN SPACE	1.1
OS-78	OPEN SPACE	1.1
OS-79	OPEN SPACE	1.1
OS-80	OPEN SPACE	1.1
OS-81	OPEN SPACE	1.1
OS-82	OPEN SPACE	1.1
OS-83	OPEN SPACE	1.1
OS-84	OPEN SPACE	1.1
OS-85	OPEN SPACE	1.1
OS-86	OPEN SPACE	1.1
OS-87	OPEN SPACE	1.1
OS-88	OPEN SPACE	1.1
OS-89	OPEN SPACE	1.1
OS-90	OPEN SPACE	1.1
OS-91	OPEN SPACE	1.1
OS-92	OPEN SPACE	1.1
OS-93	OPEN SPACE	1.1
OS-94	OPEN SPACE	1.1
OS-95	OPEN SPACE	1.1
OS-96	OPEN SPACE	1.1
OS-97	OPEN SPACE	1.1
OS-98	OPEN SPACE	1.1
OS-99	OPEN SPACE	1.1
OS-100	OPEN SPACE	1.1
SUB TOTAL		3203 AC
PROJECT TOTAL		7385 AC



NOTE: Golf Course Design is Conceptual

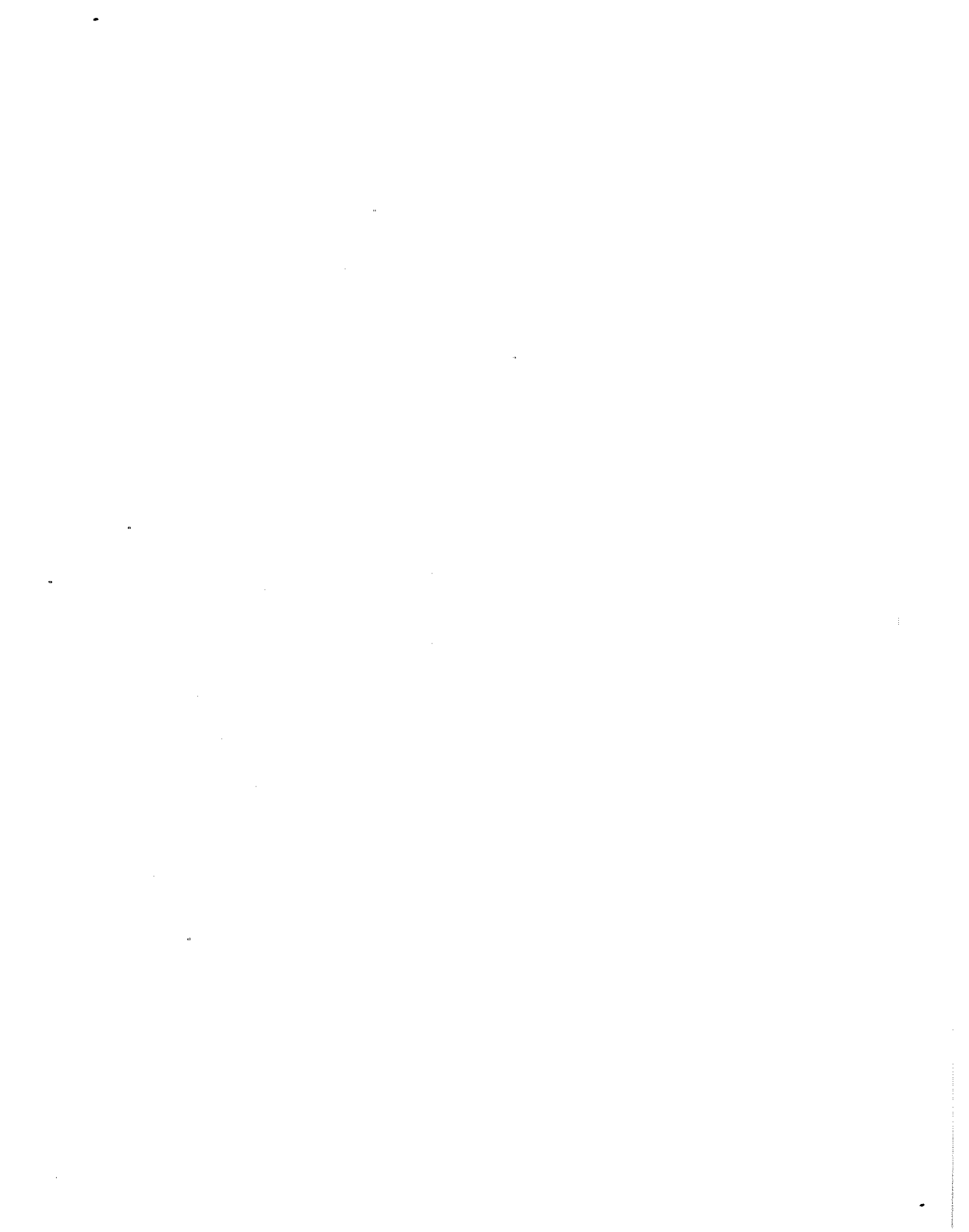
SOURCE: Cmt & Associates, 1989

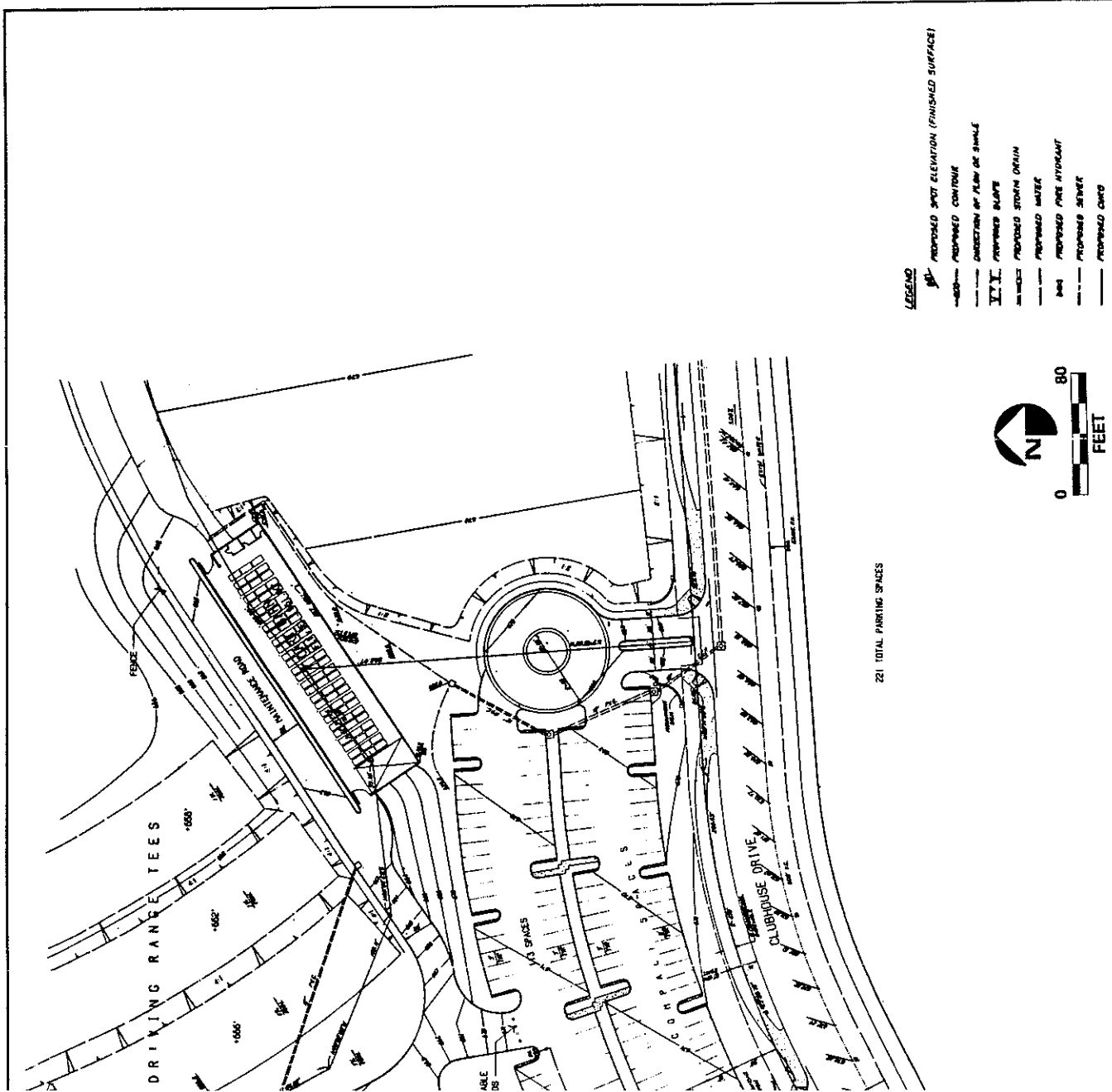


Parks/Open Space

FIGURE

1-3



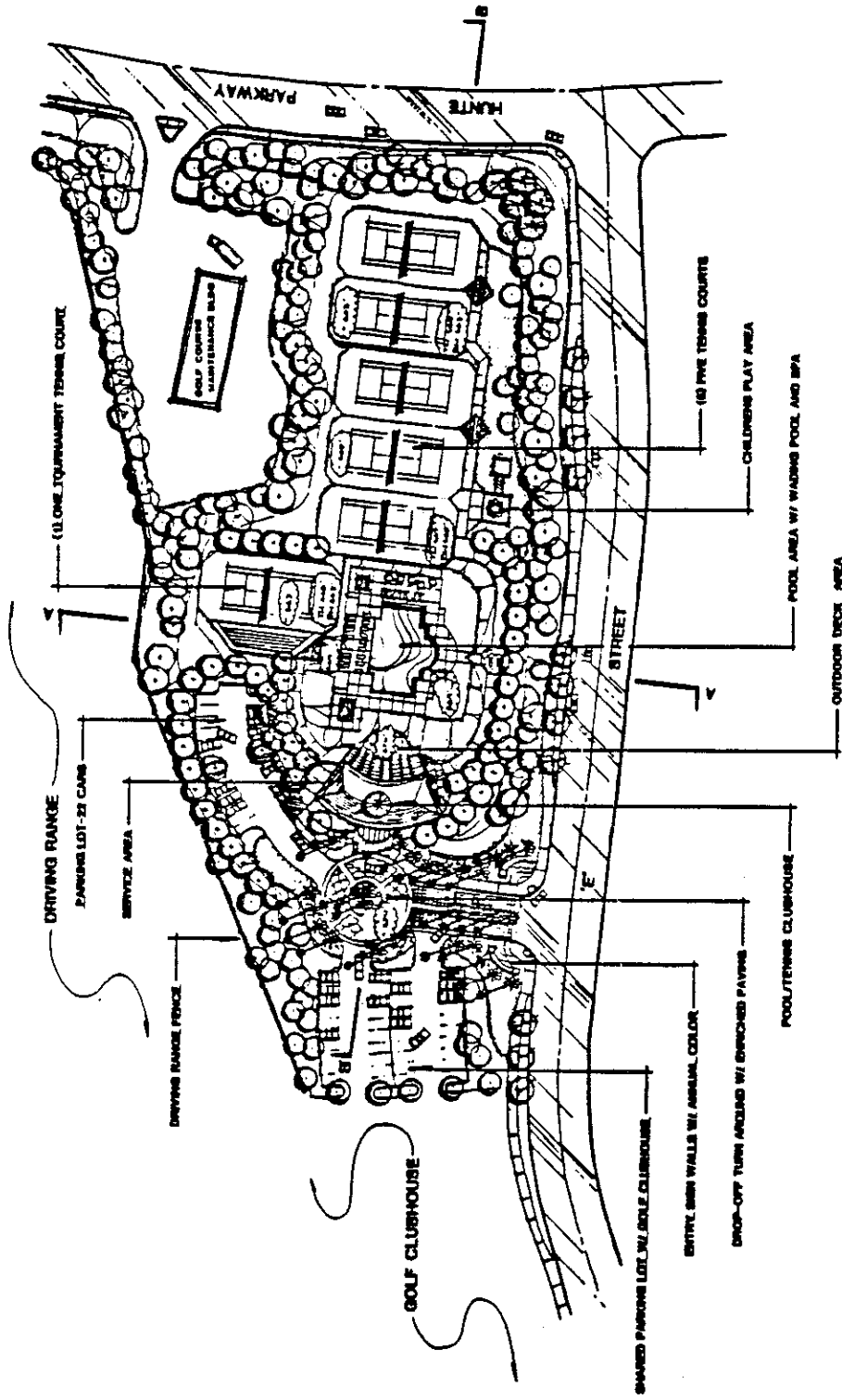


FIGURE

1-5

Golf Clubhouse Site Plan: Detail

TEE #1



FIGURE

1-6

Country Club Concept Plan



II. ENVIRONMENTAL ANALYSIS

A. NOISE

1. Existing Conditions

The site is currently undeveloped and has no on-site noise sources. Otay Lakes Road is located approximately 3500 feet north of the site and does not contribute to the noise environment.

The City of Chula Vista through its noise control ordinance has developed sound level limits for various land uses. The maximum sound level permitted is a function of land use and time of day. The sound level is measured by an hourly Equivalent Sound Level (L_{eq}) using the A-weighted scale at the boundary or at any point within the boundary of the receiving land use. L_{eq} is the average sound level measured over a period of time. The City's maximum permitted exterior sound levels for environmental noise in residential areas are summarized in Table 2-1.

Table 2-1
SUMMARY OF RESIDENTIAL SOUND LEVEL LIMITS

Receiving Land Use Category	Environmental Noise Noise Level (dBA L_{eq})	
	7:00 a.m. - 10:00 p.m.	10:00 p.m. - 7:00 a.m.
Single-family Residential	55	45
Multi-family Residential	60	50

2. Impacts

The proposed project consists of a clubhouse, golf course driving range, and tennis courts with a 200-person seating area for spectators. A public address system will be utilized at the clubhouse to provide information to the patrons. The expected hours of operation for the clubhouse and driving range are from dawn to

10:00 p.m. The tennis courts will be open from 7:00 a.m. to 10:00 p.m. Maintenance activities will begin at dawn and include operations such as mowing, fertilizing, seeding, and repairs.

Sensitive receptors include single-family residences that are planned to be built approximately 320 feet north of the clubhouse, 360 feet northwest of the driving range tees and 600 feet northwest of the tennis courts. Multi-family residences are planned for lots approximately 250 feet south of the tennis court spectator area.

The primary sources of noise expected to be generated by the project are crowd noise, noise from the public address system, and noise from maintenance activities. Crowd noise will be generated primarily at the tennis court spectator area. Precise noise levels cannot be quantified at this time, but sound level measurements conducted at public sporting events and extrapolated to this project indicate that the sound level will range from an average of approximately 60 to 70 dBA L_{eq} with a maximum sound level of 81 dBA at 50 feet from the source. The noise level will depend on the size of the audience and nature of the event. Crowd noise is not considered to be a significant impact to any residential land use.

The speakers of the public address system at the clubhouse will be directed away from sensitive receptors. The system will provide for variable amplification and will be calibrated to below a nuisance level. The public address system will not exceed the City's noise standards and is not considered to be the source of a significant impact.

Noise associated with golf course maintenance activities are primarily from power equipment such as lawn mowers and tractors. Noise generated from these sources may exceed 80 dBA at 50 feet from the source. Lawn mower and tractor noise may exceed the City's noise standards and be a significant impact if the activity occurs in close proximity to a residence prior to 7:00 a.m. In general, early morning maintenance within 200 feet of residences will disturb sleep and generate complaints.

3. Mitigation Measures

Noise from maintenance activities which use power equipment such as lawn mowers and tractors shall be mitigated by restricting the hours of use to after 7:00 a.m. for areas within 200 feet of any residential building. In addition, all power equipment shall be maintained in proper working order and be fitted with the required mufflers.

4. Analysis of Significance

Noise generated by use of power equipment for golf course maintenance may create a significant impact if used within 200 feet of a residential building prior to 7:00 a.m. Mitigation of this impact can be achieved by restricting the hours of maintenance activity and keeping equipment in proper working order.

5. Mitigation Monitoring

The operator shall maintain a maintenance complaint log which will identify the nature of the complaint, location of the complaint and the action taken to investigate the complaint and eliminate the nuisance. The complaint log shall be available to the City of Chula Vista on request.

B. LIGHT AND GLARE

The discussion on light and glare impacts from the driving range lighting system is based on a computer simulation and study conducted by Golf Lighting and Development of Jacksonville, Florida in March 1990.

1. Existing Conditions

The site is currently undeveloped and has no on-site light sources.

2. Impacts

The area surrounding the clubhouse will have security lights on 12-foot poles and small accent lights. The tennis courts will be lit with 18 foot poles. These light

sources will be shielded to prevent light trespassing and are not expected to have any significant impacts.

The driving range will have five 50-foot poles with three 1500-watt metal halide fixtures on each pole to provide horizontal illumination for the tee area. The lighting equipment will be equipped with glare-control hardware to reduce glare and light spill impacts to surrounding areas. The driving range will also have a ground-lighting system consisting of six 5-foot bulkhead walls with two 1500-watt metal halide fixtures at each location to provide the vertical illumination necessary to follow the trajectory of golf balls downrange from the tee area. This lighting will also be equipped with glare-control hardware.

The study examined five areas of potential impacts: Hunte Parkway, the recreation area south of the driving range, and three adjacent residential areas.

- Hunte Parkway. Travellers on the parkway would have a direct view of the ground lighting sources as the ground lighting would be oriented towards the parkway. This impact would be significant. The pole lighting is not expected to have a significant impact because of the aiming angles and glare control hardware.
- Recreation area. The orientation of the ground lighting to the recreation area lessens the effects of the ground lighting, although some glare may occur; this is a potentially significant impact. Any spill effects from pole lighting would not be considered significant due to the recreational use of the area. This area would act as a buffer between the light sources and residential development to the south of Clubhouse Drive.
- Multi-family residential (north). Glare from the ground lighting would affect the multi-family development to the north of the driving range because of the orientation of the lighting and the final grading elevations.
- Single-family residential (northwest). Residents in the single-family homes to the northwest would see the facility at night but the light sources would not be visible and spill light would not have an impact. Glare would not be a problem.

- Single-family residential (east of Hunte Parkway) The ground lighting would be oriented towards the single-family homes east of Hunte Parkway, although the final grading elevation differences would partially mitigate the impact of the glare.

3. Mitigation Measures

- All light fixtures in the proposed facility shall use glare-control hardware.

In addition, the following measures shall be incorporated to mitigate specific impacts which would occur even with the use of glare-control equipment.

- To mitigate the impacts to Hunte Parkway and residential development to the east, the project shall incorporate an enlarged earth berm, a landscape buffer, or a combination of both at the back of the drive range.
- To mitigate the impacts to the recreation area, the project shall incorporate a landscape buffer and extended wing walls on the ground lighting bulkhead walls.
- To mitigate the impacts to the multi-family residents to the north the project shall incorporate one of the following options:
 - Orientation and increase height of the ground-lighting bulkhead walls to restrict direct view of the light source.
 - Additional berm height and landscaping along the north side of the golf practice facility to block view of the light sources.
 - Landscaping at the individual ground lighting locations to block the view of the light sources.

4. Analysis of Significance

The impact of the lighting on adjacent areas can be minimized to acceptable levels by the correct orientation of lighting equipment, the application of glare control equipment, and a combination of earth berming and landscaping.

5. Mitigation Monitoring

Prior to issuance of the use permit for the driving range, a qualified lighting consultant shall measure the glare and spill effects to ensure that the proposed mitigation measures are adequate. Any additional mitigation measures deemed necessary by the lighting consultant shall be installed prior to issuance of the use permit.

The golf course operator shall maintain a complaint log which will identify the location and nature of the complaint and the action taken to investigate and eliminate the problem. The complaint log shall be available to the City of Chula Vista on request.

C. HAZARDOUS MATERIALS AND WASTES

1. Existing Conditions

The site is presently undeveloped with no known hazardous materials onsite.

2. Impacts

Pesticides

A wide variety of pesticides (insecticides, fungicides, and herbicides) in limited quantities are intended to be used throughout the golf course to control insect, plant, and fungal hazards. Table 2-2 outlines the pesticides expected to be used on the golf course grounds. Other products may be considered as conditions warrant. The handling, storage and disposal of pesticides is a potentially significant impact to public health if federal state and local guidelines and regulations are not followed.

Table 2-2

PESTICIDES AND FERTILIZERS EXPECTED FOR USE
AT THE EASTLAKE GOLF COURSE

Product	Manufacturer	Use
Betasan 4-E	Stauffer Chemical	Selective herbicide
MCCP	W. A. Cleary Chemical	Herbicide
PROGRASS EC	Nor-Am Chemical Co.	Herbicide (weed, tree)
Dylox 80	Mobay Chemical Corp.	Insecticide
DURSBAN 50W	Dow Chemical Co.	Insecticide
TERSAN 1991	DuPont	Turf fungicide
FORE Fungicide	Rohm and Haas Co.	Fungicide
Daconil 2787	Fermenta Plant Protection	Flowable fungicide
BAYLETON 25	Mobay Chemical Co.	Turf, and ornamental fungicide
Calcium Nitrate	WGM/Hydro	Fertilizer
Greens King	J. R. Simplot Co.	Fertilizer blend
Ultra		
6-20-20M	J. R. Simplot Co.	Fertilizer
XB 6-20-20-	J. R. Simplot Co.	Fertilizer
8(S)-1.5(Fe)-		
1.5(Zn)		
Nitra King	J. R. Simplot Co.	Fertilizer blend
(22-3-9)		
Turf Supreme	J. R. Simplot Co.	Fertilizer
+ Best Cote		

The Material Safety Data Sheets (MSDSs) will be kept on file and readily available for the grounds staff to review. Concerning storage and disposal, EastLake Development Company has stated that they (or the operations/manager of golf course) will follow reasonable and necessary guidelines as outlined by federal, state and local regulatory entities. The pesticides will be stored within a building in a special area with 6-inch concrete containment berms (Figure 1-4). Pesticide containers 28 gallons or less will be triple rinsed with water or the appropriate solvent and then thoroughly drained. The container will then be placed in a plastic bag.

Fertilizers

Fertilizers are substances which are added to soil to increase the development and maturity of the plants and grasses under cultivation. EastLake Golf Course grounds maintenance staff intend to use commercially available fertilizers as an integral part of their turf maintenance program. The types of fertilizers to be used are classified as artificial, meaning that the compounds are produced in chemical plants, as opposed to natural fertilizers such as manures. Artificial fertilizers may be organic or inorganic and often are a mixture. This group of fertilizers can be subdivided further according to their main components, such as nitrogen, potassium, phosphorus, and trace metals. Table 2-2 summarizes the fertilizers that are expected to be used on the EastLake Golf Course site. The handling, storage, and disposal of fertilizers is a potentially significant impact to public health if federal, state, and local guidelines and regulations are not followed.

EastLake Development Company has stated that fertilizers and pesticides will be stored in a building. The fertilizers will be stored away from the pesticides and the storage is expected to be short term.

Motor Fuels and Waste Oils

Gasoline and diesel fuel will also be stored and used at the EastLake Golf Course for vehicles and grounds maintenance equipment. The fuels will be stored in 1000 gallon underground storage tanks. All applicable state and local codes and regulations will be followed.

Waste oil from vehicles and turf management equipment will be collected and stored in a double walled container with a containment structure. The handling, storage, and disposal of fuels and oil is a potentially significant impact to public health if federal, state, and local guidelines and regulations are not followed.

3. Mitigation Measures

The following mitigation measures will prevent significant public health impacts from the handling, storage, and disposal of the pesticides, fertilizers, and fuel and oils.

As required by OSHA and EPA regulations, an inventory of hazardous materials should be maintained and updated periodically.

Pesticides

- EastLake Golf Course management and personnel shall follow prudent health and safety practices while handling, storing, and using pesticides. Handling and use of pesticides require the use of personal protective equipment and adherence to good personal hygiene practices.
- Pesticide applicators must be 18 years of age or older and must receive adequate training in the proper use of pesticides.
- Employees must receive training in the necessary safety procedures they should follow and the safety equipment they should use in accordance with the requirements on the product label or MSDS.
- A place to wash and change clothing after work must be provided for employees whose exposure to pesticides that carry the signal word "DANGER" or "WARNING" may exceed 30 hours in 30 days.
- Clean water, soap, and towels for personal use must be available at locations where employees may mix or load pesticides that carry the signal words "DANGER" or "WARNING."

- The storage building must have the proper warning notices posted and visible from all areas of approach. Further, notices must be posted in all storage areas where containers which hold or have held pesticides are required to be labeled with the WARNING or DANGER wording. The pesticides must be stored in accordance with the storage recommendations on the product label.
- EastLake Golf Course gardeners shall carefully follow the transport requirements for pesticides. Pesticides must be transported in a separate compartment of a vehicle away from employees and food. Any pesticide container which is transported must be secured to the vehicle in a manner that prevents spillage onto or off the vehicle.
- Regarding disposal, the rinsates from the pesticide containers shall be collected in a waste receptacle. Arrangements shall then be made for a contract disposal company to properly dispose of the bagged containers and rinsates.

Fertilizers

- The storage and handling of the fertilizers shall follow the guidelines as stated on the MSDSs which shall accompany or precede the delivery of any commercial material defined as hazardous.
- Fertilizers shall be stored in a dry, cool location away from strong oxidizers and strongly alkaline materials. Failure to follow these recommendations could lead to an incompatible reaction resulting in the generation of heat and toxic gases.
- When the turf maintenance crew is handling the fertilizers, the applicators shall be provided with appropriate personal protective equipment. Training on the use and limitations of the protective equipment shall accompany the issuance of the equipment. Gloves, protective clothing, and dust respirators are prudent control measures to reduce contact with the fertilizers and minimize possible adverse health effects.

Waste Fuels and Waste Oils

- The primary container used for the storage of motor vehicle fuels shall be composed of glass-fiber reinforced plastic, cathodically protected steel, or steel clad with glass-fiber reinforced plastic.
- A leak interception and detector system which precludes the contact of any leaked hazardous substance with the ground water shall be installed. At a minimum, the leak interception and detection system shall be above the highest anticipated ground water elevation. The floor of the leak interception and detection system shall be constructed on a firm base and sloped to a collection sump. An access casing shall be installed in the collection sump to collect any liquid that may be moving along the upper surface of the leak interception and detection system.
- A response plan must be developed for an unauthorized release. This plan shall include the following: the volume of the leak interception and detection system in relation to the volume of the primary container; the amount of time the leak interception and detection system must provide containment in relation to the period of time between detection of an unauthorized release and cleanup of the leaked materials; the depth from the bottom of the leak interception and detection system to the highest anticipated level of ground water; the nature of the unsaturated soils under the leak interception and detection system and the ability of that soil to absorb contaminants or allow vertical movement of contaminants; and the methods and scheduling to remove all the hazardous substances which have been discharged from the primary container.
- The waste oil shall be disposed of by a licensed waste disposer. Efforts shall also be made to pursue recycling as there are numerous used motor oil waste recyclers. This would help to reduce the number and amount of waste streams emanating from the golf course.

4. Analysis of Significance

Implementation of the proposed mitigation measures in conjunction with conformance to all applicable federal, state, and local guidelines and regulations will reduce the potential impacts to public health to below a level of significance.

5. Mitigation Monitoring

Pesticides and Fertilizers

The operators of the golf course shall keep logbooks documenting employee training, hazardous materials inventory, and manifests from the contract disposal company. These log books shall be available to the City of Chula Vista on request.

Waste Fuels and Oils

Proof that the leak interception and detection system will protect the ground water must be demonstrated by EastLake to the satisfaction of the Department of Health prior to the issuance of the Use Permit for the golf course.

Monitoring of the leak interception and detection system shall include a continuous monitoring device connected to an audible/visible alarm system or manual monitoring performed daily. A written routine monitoring plan must also be prepared which addresses:

1. The frequency of performing the monitoring method,
2. The methods and equipment,
3. The location(s),
4. Named or titles of the people responsible for performing the monitoring and/or maintenance of the equipment, and
5. The reporting format.

The operators of the golf course shall maintain log books documenting hazardous materials inventory and manifests from the licensed waste disposers. The logs shall be available to the City of Chula Vista on request.

D. HYDROLOGY/WATER QUALITY

The hydrology issues to be examined in this addendum are potential degradation of ground-water quality, and public health aspects related to the use of reclaimed water for irrigation of the roughly 130-acre golf course.

1. Existing Conditions

Ground-water Quality

The EastLake Greens golf course generally lies in the Salt Creek area of Otay Hydrographic Subunit (HSU) 10.2. This area is at the extreme northern end of the HSU, and has been defined as lands within and tributary to Salt Creek on the east and Poggi Canyon on the west and including the several smaller drainage courses between these tributaries of the Otay River (California Regional Water Quality Control Board [CRWQCB], San Diego Region 1988). A small portion of the northwest corner of the EastLake Greens development drains into Telegraph Canyon (HSU 9.11).

The Salt Creek area is a non-alluvial portion of the Otay HSU ground-water basin, and no ground water is being used at this time (NBS/Lowry 1988). Historically, ground-water use was limited to a few bored wells for the headquarters of Rancho Janal and Otay Ranch, and a few dug wells for livestock watering. Significant ground-water use has never developed because of low yield and poor quality (NBS/Lowry 1988). Ground-water samples collected by the Otay Water District in the early 1980s had total dissolved solids (TDS) levels of 4100 mg/l and 4300 mg/l. Later analyses conducted as part of a 1986 geotechnical study by Gregg and Associates revealed TDS concentrations ranging from 2040 mg/l to 7330 mg/l, and averaging 4200 mg/l (NBS/Lowry 1988). The poor quality appears to be due to connate water within the San Diego Formation.

Poor ground-water quality is typical throughout alluvial portions of the Otay HSU. In 1975, the Comprehensive Water Quality Control Plan Report noted ground water within the HSU was marginal to inferior for domestic and irrigation uses because of high TDS and/or chloride concentrations, and future improvement of ground-water quality was unlikely (CRWQCB, San Diego Region 1975). Recent samples

collected by Otay Water District from the few active wells in the HSU had TDS levels ranging from 1373 mg/l to 2065 mg/l and averaging 1719 mg/l (NBS/Lowry 1988).

Public Health

Discharges of reclaimed water are regulated by the Regional Board. In adopting waste discharge requirements for discharges from reclamation projects, the Regional Board, under Section 13263 of the Porter-Cologne Act, is charged with preventing health hazards, pollution and nuisances. In addition, the regional Board is required by Section 13523 of the Porter-Cologne Act to include the Wastewater Reclamation Criteria, developed for protection of public health by the State Department of Health Services (Title 22 criteria), in requirements for discharges of reclaimed water. Waste discharge requirements adopted by the Regional Board routinely implement the State Department of Health Services' Wastewater Reclamation Criteria. The Regional Board is empowered to enforce their adopted waste discharge requirements, and implementation of mitigation measures consistent with Title 22 to prevent possible health hazards is part of their normal regulatory procedures.

The Wastewater Reclamation Criteria for California (CAC Title 22, Division 4, Chapter 3) require that "reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples" (State of California Department of Health Services 1978).

2. Impacts

Ground-water Quality

Using reclaimed water for irrigation of the EastLake golf course is not expected to significantly impact ground-water quality in Otay HSU. Salt balances conducted by NBS/Lowry indicate irrigation with potable water will increase the average TDS in the alluvial portions of the Otay HSU to roughly 2320 mg/l. Assuming application of 0.6 million gallons per day (mgd) of reclaimed water to the EastLake Greens golf course, future ground-water quality in the alluvium would stabilize at about 2360 mg/l (NBS/Lowry 1988). In the Salt Creek area, upstream of the alluvial portions of the Otay HSU, where the reclaimed water will be applied, existing ground-water quality is so poor that potential impacts are well below a level of significance. According to the San Diego Regional Board, it is conceivable that the use of reclaimed water for irrigation in the Salt Creek area may improve the quality of the connate water trapped there (CRWQCB, San Diego Region 1988).

The California Regional Water Quality Control Board (Regional Board) establishes waste discharge requirements for projects using reclaimed water. The requirements are designed to implement the Comprehensive Water Quality Control Plan (Basin Plan) by maintaining designated beneficial uses and water quality objectives. The Basin Plan was recently revised by the San Diego Regional Board to account for existing conditions in the Salt Creek area of the Otay HSU. On April 25, 1988, following a public hearings, the San Diego Regional Board adopted Resolution No. 88-49 which amended the Basin Plan by deleting all beneficial use designations except for industrial service supply, and all water quality objectives for ground water in the Salt Creek area of the Otay HSU. On May 16, 1989, the State Water Resources Control Board adopted Resolution No. 89-36, which approved the San Diego Regional Board's action. The State Board's resolution also required a ground-water quality monitoring program be established to provide the San Diego Regional Board and reclamation agencies with information concerning ground water conditions in the Salt Creek area and any potential effects on the remainder of the Otay HSU (California State Water Resources Control Board 1989). Provided this monitoring program is implemented, irrigating the EastLake Greens golf course with reclaimed water will be in conformance with the Basin Plan.

Public Health

Potential impacts to public health will be limited to below levels of significance through conformance to state regulatory requirements. In addition, irrigation program operating practices will help minimize public contact, ponding, and runoff, further protecting public health.

The EastLake Golf Course irrigation program involves high intensity maintenance to create acceptable playing conditions and overall aesthetics. The operation and maintenance practices planned also will minimize public contact with the reclaimed water and prevent runoff and ponding. Key aspects of the program that will help prevent public health impacts are as follows:

- Daily inspection of golf course conditions and irrigations components, with adjustment of program if needed.
- Daily inspection and repair of irrigation components to insure proper operation.
- Irrigation at night
- Cycles of irrigation generally spaced apart to allow sufficient time for soaking and to prevent runoff
- Irrigation schedules modified in accordance with seasons and weather patterns
- Irrigation on an as-needed basis during winter (no irrigation applied after a storm until conditions warrant)

3. Mitigation Measures

To meet the California State Water Resources Control Board's requirements established in Resolution No. 89-36, a ground-water quality monitoring program shall be implemented to provide information about ground-water conditions in the Salt Creek area and any potential effects on the remainder of the Otay HSU.

No mitigation measures are necessary regarding public health provided all state regulatory requirements are met and the proposed irrigation program is followed.

4. Analysis of Significance

Using reclaimed water for irrigation of the EastLake Golf Course is not expected to significantly impact ground-water quality in any portion of the Otay HSU. A ground-water quality monitoring program must be implemented to conform to State Water Resources Control Board requirements.

Potential impacts to public health will be limited to below a level of significance through conformance to state regulatory requirements established by the San Diego Regional Water Quality Control Board, the State Water Resources Control Board, and other appropriate agencies. Proposed operation practices in the EastLake Golf Course irrigation program will further protect public health by minimizing public contact, runoff, and ponding.

5. Mitigation Monitoring

Conformance to state regulatory requirements for ground-water quality and public health will be monitored by the San Diego Regional Water Quality Control Board as part of their enforcement of the waste discharge permit for EastLake Greens.

III. REFERENCES CITED

California Administrative Code, Title 23 Waters, Chapter 3, Subchapter 16, Sections 2633, 2634, Underground Tank Regulations.

California Department of Food & Agriculture. Series of handouts from Worker Health and Safety Branch.

1. Summary of Worker Safety Regulations
2. Pesticide Safety Training
3. Control of Pesticides, Containers and Equipment

California Regional Water Quality Control Board, San Diego Region. 1988. Request for Modification of Basin Plan Ground Water Quality Objectives for the Otay Hydrographic Subarea.

California Regional Water Quality Control Board, San Diego Region. 1975. Comprehensive Water Quality Control Plan Report, San Diego Basin (9).

EastLake Development Company, Correspondence January 13, 1990. Curt Smith to Jeanne Muñoz

EastLake Development Company, letter dated March 14, 1990. Shelly McElyia to Jeff Fuller.

Golf Lighting and Development. 1990. Golf Practice Facility Lighting Design, Impact and Mitigation Study for EastLake Greens. Jacksonville, Florida.

NBS/Lowry. 1988. Technical Report on Proposed Modifications of Basin Plan Objectives in the Otay Hydrographic Subunit (10.1). March.

ONA Landscape Architecture & Planning. 1990. County Club Park Concept & Plan - Site 4 - Lighting Plan.

Rick Engineering. 1989. 50 Scale Study and Robinson Layout.

Robert Alteuers Associates, letter dated January 25, 1990. Richard P. Milstead, AIA to Curt Smith.

State of California Department of Health Services. 1978. Wastewater Reclamation Criteria, an excerpt from the California Administrative Code, Title 22, Division 4.

State Water Resources Control Board Resolution, No. 89-36. May 16, 1989.

Tver, D. F., K. A. Anderson, and Chapman & Hall. 1986. *Industrial Medicine Disk Reference*.

IV. INDIVIDUALS AND ORGANIZATIONS CONTACTED

City of Chula Vista
Maryann Miller

EastLake Development Company
Curt Smith



V. REPORT PREPARERS

This addendum was prepared by ERC Environmental and Energy Services, Co. ERCE professional staff contributing to the report are listed below:

Suzanne Aucella, M.R.P. City and Regional Planning

Denise Daggett, M.S. Environmental Sciences

Jeff Fuller, B.S. Environmental Health

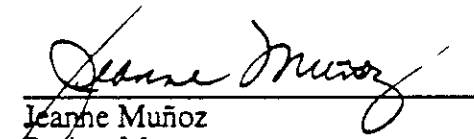
Katherine Hon, M.E. Civil Engineering

Guy Magliato, B.A. Environmental Studies

Jeanne Muñoz, Ph.D. Anthropology

Paul Stamm, M.E. Electrical Engineering

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.



Jeanne Muñoz
Project Manager

**ADDENDUM TO ENVIRONMENTAL IMPACT REPORT EIR-86-04
EASTLAKE GREENS SPA PLAN/TRAILS PRE-ZONE AND ANNEXATION
FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT
EASTLAKE VILLAGE CENTER SOUTH**

I. PROJECT NAME: EastLake Village Center South

PROJECT LOCATION: Southwest corner of Telegraph Canyon Road
and Eastlake Parkway

PROJECT APPLICANT: Topmark
12520 High Bluff Drive, #165
San Diego, CA 92130

PROJECT AGENT: James Leary Architecture and Planning
9845 Erma Road, Suite 205A
San Diego, CA 92131

CASE NO: IS-92-21

RELATED CASE(S) IS-92-21: DRC-92-19 AND TPM-92-02

II. BACKGROUND

The environmental review procedures of the City of Chula Vista allow the Environmental Review Coordinator (ERC) to prepare an addendum to a Negative Declaration or Environmental Impact Report, if one of the following conditions is present:

1. The minor changes in the project design which have occurred since completion of the Final EIR or Negative Declaration have not created any new significant environmental impacts not previously addressed in the Final EIR or Negative Declaration;
2. Additional or refined environmental data available since completion of the Final EIR does not indicate any new significant environmental impacts not previously addressed in the Final EIR or Negative Declaration; and
3. Additional or refined information available since completion of the Final EIR or Negative Declaration regarding the potential environmental impact of the project, or regarding the measures or alternatives available to mitigate potential environmental effects of the project, does not show that the project will have one or more significant impacts which were not previously addressed in the Final EIR or Negative Declaration.

This addendum has been prepared in order to provide additional information and analysis concerning the impacts of the proposed project. As a result of this analysis, the basic conclusions of the Environmental Impact Report have not changed. Noise and visual quality impacts are deemed to be

less than significant for the proposed project. The cumulative effects of traffic impacts will have an adverse effect on circulation.

Therefore, in accordance with Section 15164 of the CEQA Guidelines, the City has prepared the following addendum to the Environmental Impact Report for the EastLake Greens SPA Plan and EastLake Trails Pre-zone and Annexation Final Supplemental Environmental Impact Report, EIR-86-04 (ERCE, 1989).

III. IDENTIFICATION OF ENVIRONMENTAL EFFECTS

Land Use - There is no change proposed to this project for the retail commercial land use. The center is to include two, possibly three, anchors and anywhere from 15 to 25 other users, depending on the approved scenario. Both related projects (DRC-92-19 and TPM-92-02) implement the provisions of the EastLake SPA Plan and mitigation measures of EIR-86-04 so far as land use is concerned.

Transportation and Circulation - At present, Telegraph Canyon Road operates at a level of service (LOS) "A" with 9,630 ADT, while Eastlake Parkway operates at a LOS "A" with 2,540 ADT. Once constructed and fully operational, the project will generate approximately 17,560 ADT on Telegraph Canyon Road and 7,840 ADT on Eastlake Parkway for a project total of 25,400 ADT. The LOS will remain unchanged at "A" for both of these streets. However, even if this project remains unchanged and is constructed as planned, other changes in the project vicinity may result in a cumulative effect on Telegraph Canyon Road resulting in a LOS "F" or worse.

Primary access roads are adequate to serve the project. The applicant proposes to widen and lengthen the east-bound right turn lane along the project frontage on Telegraph Canyon Road. Median improvements and modifications are also necessary.

Services/Utilities - A 15" PVC sewer line is located in Telegraph Canyon Road and is capable of handling the solid and liquid waste that will be generated by the project. However, the applicant will have to participate in the Telegraph Canyon Basin Financing Plan to mitigate downstream impacts.

Visual Resources - The EastLake Village Center South site, as a viewshed, is not significant as the project is located in the lower elevations of the overall EastLake SPA I site. The areas to the north, east and south have been developed or

graded, while the area to the west and northwest, although vacant at present, are part of the SR 125 right-of-way. This project will not create visual impacts to surrounding land uses since it will be required to conform to the Planned Community District Regulations for the EastLake Community.

Geology/Soils - Detailed preliminary geotechnical investigations of the EastLake Greens project was conducted by Leighton and Associates, Inc. (1979) and San Diego Soil Engineering, Inc. (1986). These geotechnical reports, which present findings, conclusions and recommendations, are summarized in EIR-86-04 and are on file with the City of Chula Vista Planning Department. The project is required to comply with the recommendations set forth in these reports, and additional mitigation measures related to geology/soils are not needed.

Hydrology/Water Quality - The project is not within a flood plain. A 20' wide drainage easement is located along the northern frontage approximately midway between the western most and central entrances which contain a 42" RCP leading to a 108" RCP in Telegraph Canyon Road. This will allow surface flow in a northwesterly direction to the inlet and then to Telegraph Canyon Road. This is considered adequate for the project.

Paleontological Resources - As a result of Mitigation Measure 4.7.3 on Page 4-75 of EIR-86-04, a qualified paleontologist was on site during mass grading of this project site. Additional grading of the site will consist of fine grading and will be minimal. Therefore, no further mitigation will be required.

Air Quality - When analyzed individually, this project will not have a significant impact on the attainment of local air quality goals. However, the cumulative effect will be significant, especially in view of the LOS "F" that may result along Telegraph Canyon Road at buildout of the EastLake area. Implementation of the mitigation measures identified in Section 4.8.3 of EIR-86-04 and as listed in this Addendum should be completed as early in the process as possible.

Biological Resources - Mitigation Measure 4.9.3 on Page 4-91 of EIR-86-04 recommends that upon development of the EastLake Trails area, the park designation within the Salt Creek drainage be left in its native habitat and further enhanced to provide high-quality riparian habitat. This project is a

precursor to the development of EastLake Trails and requires no additional parks and recreation mitigation measures.

Socioeconomic Factors - This project will result in population growth that is expected for the City of Chula Vista. No significant housing or employment impacts are expected to occur as a result of this project.

Fiscal Analysis - Based on the fiscal analysis prepared by Public Affairs Consultants, EastLake Greens is estimated to provide net revenues which will result in beneficial fiscal impacts to the City of Chula Vista. No significant adverse impacts are expected as a result of this project.

Noise - There are no traffic-related or other noise impacts that would be significant enough to justify a noise analysis for this individual project.

Summary of Threshold/Standards Policy - With the exception of the cumulative impacts to transportation/circulation and air quality, this project will not adversely impact the threshold/standards established for EastLake Greens and as discussed in EIR-86-04.

IV. MITIGATION MEASURES

The proposed project shall comply with the traffic mitigation measures set forth in EIR-86-04, as follows:

1. Improve Telegraph Canyon Road between State Route 125 and EastLake Greens/Trails boundary to six lane prime arterial standards.
2. Construct Hunte Parkway and EastLake Parkway as major roads between Telegraph Canyon Road and Orange Avenue.
3. Construct a southbound SR 125 to eastbound Telegraph Canyon Road loop ramp at the SR 125/Telegraph Canyon Road intersection, or extend SR 125 south to East Palomar Street (which would connect to the EastLake SPA II street system).

In addition, the following traffic mitigation measure should be added for the proposed project:

4. Construct a bus stop, including a shelter, to the satisfaction of Chula Vista Transit and the Transportation Engineer along the Telegraph Canyon Road

frontage east of the main intersection between SR 125 and Eastlake Parkway on Telegraph Canyon Road. This shall be included as a condition of approval for TPM-92-02 in order to implement the Transit Planning Principles found in the EastLake SPA I Plan under Section 3.11 on page III-8.

Principles 1 and 4 of the EastLake SPA I Plan justify this action. These state:

1. Where there are numerous major pedestrian generators, access to stops for transit vehicles moving in both directions would be facilitated by locating transit stops near striped intersections.
4. Transit vehicle conflicts with automobile traffic can be mitigated by locating bus turnouts at the far side of intersections in order to permit right-turning vehicles to continue movement.

This will be refined through the processing of DRC-91-19 and TPM-92-02.

V. CONCLUSION

EastLake Village Center South will have a cumulative effect on traffic on Telegraph Canyon Road and Eastlake Parkway as well as the attainment of local air quality goals. With the implementation of the mitigation measures identified in this addendum, the traffic and air quality impacts will be reduced below significance. This project will have no other significant impacts, direct or cumulative, to the environment not already identified in EIR 86-04.

Maryann Miller

MARYANN MILLER
ENVIRONMENTAL REVIEW COORDINATOR

4.1.92

DATE

REFERENCES: General Plan, City of Chula Vista
 Title 19, Chula Vista Municipal Code
 City of Chula Vista Environmental Review Procedures
 EIR-86-04 -EastLake Greens SPA Plan/Trails Pre-zone
 and Annexation Final Supplemental Environmental
 Impact Report (ERCE, June, 1989)
 EastLake SPA I Plan

**EASTLAKE GREENS
SECTIONAL PLANNING AREA (SPA) PLAN
AND EASTLAKE TRAILS PRE-ZONE AND ANNEXATION
FINAL SUPPLEMENTAL ENVIRONMENTAL
IMPACT REPORT
Case No: EIR-86-4
SCH: 86052803**

Prepared for:

City of Chula Vista
Environmental Review Coordinator
276 Fourth Avenue
Chula Vista, California 92010

Prepared by:

ERC Environmental and Energy Services Co.
5510 Morehouse Drive
San Diego, California 92121

Project No. 37005000

June 1989

COMMENTS AND RESPONSES

The EastLake Greens Draft Supplemental Environmental Impact Report was issued for public review April 25, 1989, with final public comments received during the City of Chula Vista Planning Commission meeting of May 24, 1989.

A total of 60 comments were received and are responded to on the following pages. Comments that resulted in changes to the text of the report are so noted. The comments are in the following order: City of Chula Vista, Otay Water District, Resource Conservation Commission, EastLake Development Company, Rancho Del Rey (with enclosures), The Baldwin Company.

The comments and responses thereto and the revised Draft Supplemental Environmental Impact Report comprise the Final Supplemental Environmental Impact Report for the EastLake Greens Sectional Planning Area (SPA) Plan and EastLake Trails Pre-zone and Annexation.

May 9, 1989
File No. Y
RECEIVED

To: Uoug Reid, Environmental Review Coordinator
From: Cliff Swanson, Deputy Director of Public Works/City Engineer
Subject: Draft EIR EastLake Greens and Truffs

MAY 18 1989

It is my opinion that the subject EIR does not adequately examine impacts to City sewer facilities, specifically the Telegraph Canyon trunk sewer.

In reading the sewer section, it is impossible to determine if there will be impacts on the existing sewer facilities, what the level of significance of the impacts could be or what would be required to mitigate these impacts. Since sanitary sewer is an essential item with respect to development of the property, I feel that this is an item that should be explored in some detail.

The only paragraph that offers specific figures regarding sewage generation and potential impacts consists of a conglomerate of disconnected figures (bottom of page 4-50 and top of 4-81).

First the EIR states that the system capacity is 2.18 mgd without stating where this capacity exists. The capacity of the system varies with pipe size and grade. This 2.18 mgd figure should be identified as to location and as to whether this is a system constraint or a localized one.

Next, the EIR states that the project will generate 1.16 mgd and indicates that this will be 58% of existing capacity. The 1.16 mgd figure is an average flow, to which a peaking factor must be applied. The peaking factor for a population of 12,000 is 1.85. Thus, the peak flow should be in the neighborhood of 2.15 mgd. Since the EIR uses the word "capacity" in reference to a pipe flowing full, and the City will not allow a pipe to flow at greater than 75% full, the Greens in and of itself appears to be generating sufficient sewage to exceed City standards. Inasmuch as the system is identified as currently flowing at 60%, there will clearly be a significant impact, with mitigation required in the form of sewer improvements (upsizing, parallelizing). Further, in the Table 4-10, the EIR identifies additional sources of sewage in the project vicinity. In that chart it mixes future development (Mancho del Rey) with approved developments and implies that these are all future considerations. The EastLake Business Center, which is identified as currently being served by the Spring Valley line, is in fact connected to the Telegraph Canyon system. This is .44 mgd or more that has been approved, but not developed in the sense that, so far, few building permits have been issued. At this point, the entire .44 mgd should be considered as a component of the existing flow which is not yet measurable. This too appears to be an average flow, and should have a peaking factor applied.

The sewer services section has been revised for clarity and specificity. It now includes data generated by Wilson Engineering (1989a, 1989b), who determined the capacity of the Telegraph Canyon sewer facilities to handle projected peak flows from a variety of combinations of projects, including EastLake Greens and the EastLake Business Center.

Doug Reid

-2-

May 9, 1989

Another major issue is the impact or potential impact due to diversion. The majority of the Greens project is not naturally tributary to Telegraph Canyon. Since the downstream system was designed based on the watershed size and projected densities, there may be a significant impact on the Telegraph Canyon Trunk sewer with the addition of 3600 units to the watershed. The mitigation of this impact extends beyond improving the existing system to accommodate the proposed development. Mitigation should include provisions for any additional improvements necessary to accommodate development of properties within the watershed to the extent that such improvements have been made necessary by the proposed diversion. The City must require an agreement with the developer, along with a funding mechanism to construct these improvements as mitigation for the project.

I recommend that this EIR not be certified until these issues have been addressed clearly and completely.

CSJ:nr
WPC 436JE

cc: John Lippitt
John Goss

- 2 As a condition of approval of the Final Map, EastLake Development Company must negotiate a sewage monitoring agreement with the City. The Company will conduct monitoring of the existing 15-inch sewer trunk line in Telegraph Canyon Road to ensure that the capacity of that line is not exceeded prior to the creation of alternative means of transporting sewage.
- 3 We believe that the EIR is adequate and should be certified.



Dedicated to Community Growth
 1000 Jamboree Road, San Diego, CA 92116
 (619) 444-1111 and (619) 444-1112

May 19, 1989

City of Chula Vista
 Department of Planning and Land Use
 276 Fourth Avenue
 Chula Vista, CA 92010

Attention: Doug Reid
 Environmental Review Coordinator

Subject: Draft EIR for Eastlake II (Eastlake Greens Trails)
 W.O. No. 1911

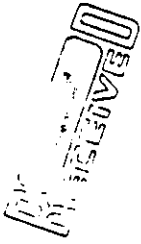
Gentlemen:

We have had an opportunity to review the Draft Environmental Impact Report (EIR) for the subject project. Rather than attempting to comment on individual statements regarding water availability to the subject project, I would prefer to provide a brief discussion of the existing Central Area system and proceed to describe the future plans to serve the Eastlake Greens and adjacent property owners such as The Baldwin Company.

Eastlake Greens lies within the boundary of the Otay Water District, but is not in an improvement district. To obtain water service, it will be necessary to annex the territory to be served to Improvement District No. 22 (ID-22). An agreement between Eastlake and two other major developers has already been approved by our Board of Directors which will provide financing for the construction of a 50/54 MG reservoir. This is considered to be terminal storage and will provide a minimum of five average days of storage. Eastlake, in general, will be served by the Central Area water system. Currently, there are two connections to Pipeline No. 3 of the Second San Diego Aqueduct, NO. 4 and NO. 9. These supply the Central Area system or service zone. Attached is a map depicting the boundaries of this service zone.

Several pressure zones lie in the Central Area service zone. Eastlake is primarily served off of the 710 and 980 pressure zones. Water to the 710 pressure zone is pumped through the Central Area pump station to a 3.0 MG reservoir (710-1). The 980 pressure zone is served via the Eastlake pump station which in turn pumps water to two 5.0 MG reservoirs located in the District's Use Area with a high water level of 980.

4 Thank you for this information; the text has been changed to reflect the information provided.



MAY 23 1989

Two existing reservoirs, Patzig, with a capacity of 12 MG and the 624-2, with a capacity of 8.0 MG, are considered to be terminal reservoirs and are fed directly off the No. 4 and No. 9 connections, respectively. Currently, the rated capacity of the Central Area pump station is about 12,000 gallons per minute (gpm) and the rated capacity of the Eastlake pump station is 4,000 gpm.

To provide service to the Eastlake Greens, the Central Area pump station will have to be expanded to 16,000 gpm, the capacity of the existing 710-1 reservoir will have to be expanded by 2.0 MG (710-2) and Eastlake pump station will have to be expanded to 8,000 gpm. Actually, this pump station will have a total of three 4,000 gpm pumps, with one pump used as standby. As Eastlake continues to develop and the capacity of the Eastlake pump station is reached, another pump station will have to be built to meet the demands in the 980 pressure zone. Another 710 reservoir (710-3) is planned to be in the Eastlake Greens to provide service to the 710 pressure zone west of the Central Area site. The approximate location of this reservoir is indicated on the attached Site Utilization Plan.

The Otay Board of Directors has directed that Staff should plan for a minimum of 10 average days of terminal storage. It has been proposed to build a 50 MG reservoir near the existing Central Area facilities as part of the District's continuing efforts in meeting the Board's objectives. Two sites have been identified for this proposed 50 MG reservoir. One is located in Parcel PQ-1 in Eastlake Greens. The second site is located just west of the proposed 125 freeway and south of the existing Central Area facilities on Baldwin property. The District has retained consultants to provide a preliminary soils and environmental evaluation for these two sites. Preliminary conclusions for the construction appear to indicate that both sites are adequate for the construction of a 50 MG reservoir. Due to the fact that an agreement with Eastlake, McMillin and Sunbow is on the verge of being signed for the construction of terminal reservoirs and the formation of a new ID-27, it would appear that the Eastlake site will be considered as the primary site of the construction of the first 50 MG reservoir. It would seem to us that the subject draft EIR should include a discussion of the construction of a 50 MG buried concrete reservoir as a first phase for providing terminal storage to the Central Area service zone.

5 The 50 MG buried concrete is described in the FEIR in the Water Availability Section. Reference is also made to the site constraints analysis under preparation for the Otay Water District. Except for the usual construction-related adverse effects (temporary air quality effects, noise), no adverse environmental effects are anticipated as a result of this facility.

6 To meet future demands in areas adjacent to Eastlake Greens, oversizing of pipelines has to take place. The sizing of these pipes has yet to be determined.

7 Finally, the CWA has stated that during hot weather, the capacity of Pipeline No. 3 may be reached and has stated that the Otay Water District may be limited to a maximum of 38 cfs during these periods. The District, in conjunction with the CWA, Helix Water District, Padre Dam Municipal Water District, City of San Diego, and Sweetwater Authority, is evaluating short term and long term projects that can be implemented to meet the demands in the south county region. However, until more defined information becomes available, the Otay Board of Directors has approved a water allocation report that may limit the number of units that can be built in one year by developers within the Otay Water District. Copies of such report have been previously furnished to the City of Chula Vista.

If you have any questions regarding this information, please give me a call at 670-2238.

Very truly yours,

Manuel Arroyo

Manuel Arroyo
District Planning Engineer

MA:cp

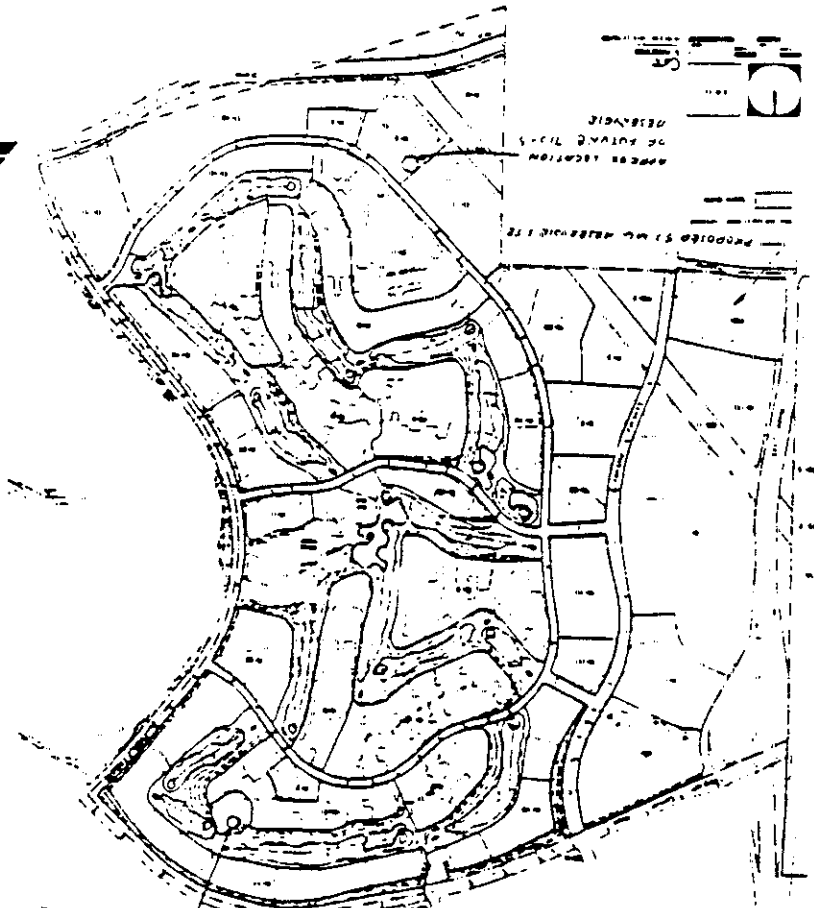
cc: Jeanne Munoz, ERC
Bob Snyder, Eastlake Development Co.

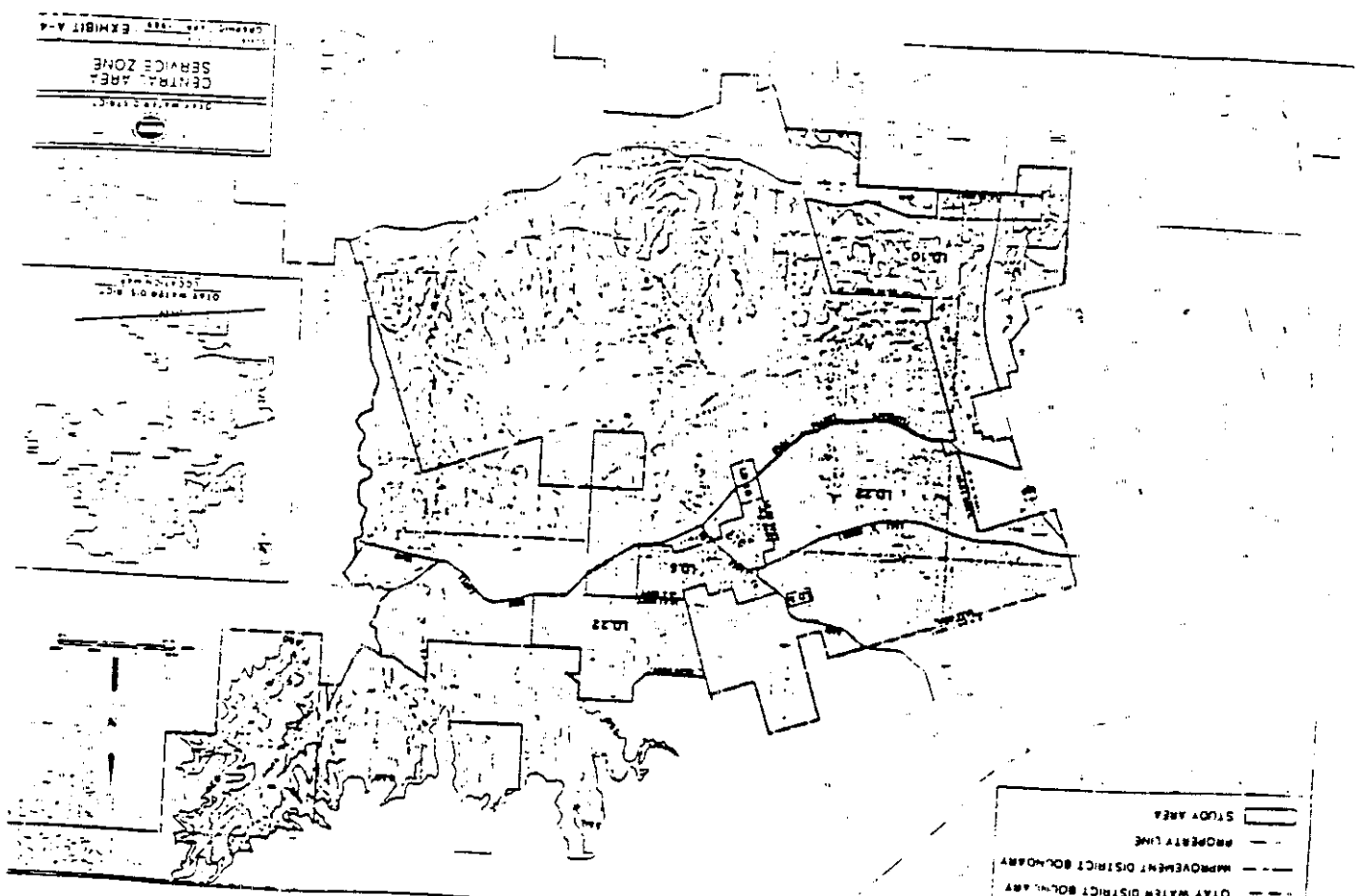
6 Thank you for this information. It has been incorporated into the FEIR.

7 Thank you for this information; it has been incorporated into the FEIR.

EASTLAKE GREENS

Site Utilization Plan





~~Because of the~~
Based on the Commission's independent understanding of the requirements of CEQA, and because of the logic of time between the preparation of the Eastlake Master EIR and the Eastlake Green SPA Draft Supplemental EIR (Case No: EIR-86-11), and in light of the ~~changed~~ ~~conditions~~ changes which have taken place in the region, the RUC is of the opinion that Eastlake Green SPA Draft Supplemental EIR is inadequate in the following respects:

- a) the document fails to give adequate consideration to the project's cumulative impact on:

- (1) transportation and circulation;
- (2) sewer service;
- (3) refuse disposal;
- (4) water availability.

b) the document fails to describe a range of reasonable alternatives to the project that could feasibly attain the project's objectives and fails to evaluate the comparative merits of each alternative.

We believe that all of the issues mentioned have been treated comprehensively, both in terms of project-specific and cumulative impacts. The transportation and circulation analysis is based on the Transportation Phasing plan, which is based on phased cumulative development throughout the Eastern Territory. The FEIR treats cumulative effects of the projects that are within the Telegraph Canyon drainage system or will use the Telegraph Canyon trunk line by pumping to it. Cumulative effects on solid waste, solid waste disposal, and landfill facilities are discussed to the extent possible in Section 4.3.9. Regional water consumption (i.e., cumulative water consumption) was considered when the EastLake project was approved in concept in 1982.

The present document is a Supplemental EIR, meant to analyze additional information or specific details of a portion of a project described (and subsequently approved of) in a Master Plan and Master Plan EIR. Alternatives to the project were considered in the prior EIR (1982) and are summarized in this SEIR. An additional alternative (Alternative Site Location) is included herein to meet recent interpretations of CEQA. We therefore believe that the SEIR meets CEQA requirements for the consideration of alternatives to the proposed project.

RECEIVED
MAY 24 1989

May 23, 1989

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

MAY 24 1989

RE: EASTLAKE GREENS
SECTIONAL PLANNING AREA (SPA) PLAN
AND EASTLAKE TRAILS PRE-ZONE AND ANNEXATION
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT
Case No: EIR-86-4
SCH: 8605280J

Dear Doug:

We have reviewed the above referenced document and believe it represents a complete and thorough analysis of the project. Nevertheless, we would like to provide the following comments to clarify and amplify certain information for the public record:

Section 1.2 Page 1-1

It should be noted that the proposed Development Agreement pertains to EastLake Trails in terms of the General Development Plan and related pre-annexation zoning.

Page 1-6

Para. 2 indicates that, if reclaimed water is used for irrigation, further environmental review may be necessary. Reclaimed water is, in fact, proposed for use, particularly for golf course irrigation. It was intended that the subject EIR address use of reclaimed water as an integral characteristic of the project. To the extent that related environmental review has been addressed, the final EIR should identify impacts, if any, as well as the level of supplemental EIR review that would be necessary in the future.

10 The text has been altered to reflect this information.

11 The impact of the use of reclaimed water is discussed in appropriate sections of the FEIR. The standards for water quality and for the use of reclaimed water are regulated by the State of California and the County of San Diego. One or a combination of more one of the other regulatory agencies associated with sewerage and water service (the City of Chula Vista, Olaj Water District, METRO, San Diego County Water Authority) may assume the lead role for a reclamation plant in the Salt Creek watershed on EastLake property. Reference in the text to further environmental review associated with the use of reclaimed water has been deleted.



Eastlake Business Center
500 Third Avenue
Chula Vista, CA 92010
(619) 421-0100

Page 1-7

Para. 3 indicates that biological impacts related to Salt Creek can not be specifically analyzed at this time. This should be clarified to reflect that further environmental analysis will be relative to the Eastlake Trails SPA and Tentative Map and not those associated with the Eastlake Greens neighborhood.

Section 2.2 Page 2-1

Project objectives should include the intent to pre-zone and annex Eastlake Trails. Development of Eastlake Trails will be subject to future SPA Plan approval.

Section 2.3 Page 2-1

Discretionary actions should include the pre-zoning of property and its annexation from the County of San Diego to the City of Chula Vista, consistent with the adopted Sphere of Influence of the City.

Page 2-6

Figure 2-4 is incorrect as drawn. The figure should be clarified to indicate that the Future Urban area north of Telegraph Canyon Road is not approved or built.

Section 2.4 Page 2-12

Para. 3, which references the Public Facility Financing Plan and Development Agreement, should note that these integral parts of the project also assure that build-out is commensurate with the availability of necessary facilities and infrastructure.

Section 2.4 Page 2-14

Para. 3 states that additional environmental analysis will be needed "to address the public health and environmental effects of reclaimed water use on-site." Since the county and state have sufficient standards governing the use of reclaimed water, an additional FIR should not be required. This statement should be clarified in the text.

12 The text has been clarified as suggested.

13 The text has been changed to include this information on EastLake Trails.

14 The text has been changed as suggested.

15 The graphic has been revised to delete the indication that the Future Urban north of Telegraph Canyon Road is approved or built.

16 This additional information has been added to the text.

17 You are correct; thank you for pointing out this error. The text has been changed accordingly.

Page 2-17

Para. 1 should indicate whether or not the development of EastLake II is assumed for purposes of cumulative impact analysis.

A public neighborhood park is now proposed for development within the SDG&E easement. Therefore, with reference to paragraph 2, grading will likely be necessary within the SDG&E easement.

Page 2-18

To correspond with the narrative material the word "natural" in the legend of Figure 2-9 should be changed to "native".

Page 2-22

Para. 2 should note that the use of reclaimed water within the project is not dependent on the construction of a water reclamation facility in the EastLake Trails area. Off-site reclaimed water distribution pipelines have been previously installed to deliver water from the existing Otay Water District plant to EastLake.

Section 4.1.1.2 Page 4-10

Para. 1, which refers to prior environmental documents, should specify the title of the studies and where they may be obtained.

Section 4.2.1 Page 4-16

Para. 5 should reference and discuss the current status of SR 125, particularly the CalTrans Route and Environmental study taking place.

Page 4-18

Public transit currently serves the EastLake I area via East "H" Street to EastLake Drive.

18 The development of EastLake II is assumed for purposes of cumulative impact analysis. This has been incorporated into the text as suggested.

19 The text has been revised to include this information.

20 The text, not the figure, has been changed for consistency. "Native" is a precise term used by biologists, whereas "natural" is used by nonbiologists and includes both native and nonnative vegetation. In this instance, "natural" is the appropriate word.

21 The text has been revised to reflect this information.

22 The titles of the referenced documents have been incorporated into the text.

23 The text regarding SR 125 has been revised to bring it up to date.

24 The text has been revised to include this information.

Page 4-19

Para. 2 leads the reader to believe that nearly 64,000 ADT generated is strictly the result of the EastLake Greens neighborhood. This should be clarified to note that these generation rates are figured for both the EastLake Greens and the EastLake Trails neighborhoods and the related commercial, recreational and retail functions in the EastLake Village Center.

Page 4-21

The reference in the table indicates that the equestrian center will be approximately 54.2 acres in size and generate trips at the rate of 50 trips per acre. This represents a conservative estimate of trip generation since the equestrian center itself is not likely to be 54 acres in size. It is currently estimated at approximately 20 acres of facilities plus riding trail areas.

Page 4-23

Para. 1 indicates that approximately 10,100 dwelling units are assumed to be developed in the study area in the short-term. This should be clarified to emphasize that the 10,100 units are not specifically EastLake units but cumulative dwelling units utilized for developing the transportation Phasing Plan.

Page 4-27

Table 4-3 indicates that Bonita Road east of I-805 is expected to operate at LOS F. The text should emphasize that this street segment is currently operating at LOS F and that the EastLake Greens/Trails project is only anticipated to contribute 1% of the ADT, or 200 trips per day. In addition, Bonita Road east of Willow Street is currently operating at LOS D and the EastLake Greens project is anticipated to contribute only 1% or 200 trips to this condition.

25 The text has been revised for clarity. Please refer also to Appendix B (the Traffic Report), page 12, Table 2 of for separate trip generation summaries for the Greens and Trails neighborhoods.

26 The 54.2 acres is a gross acreage and the trip generation rate reflects trips generated at a gross acreage level. We believe that the trip generation rate used is appropriate for this level of analysis.

27 The text has been clarified to indicate that the units are not specifically EastLake units but cumulative dwelling units utilized for developing the Transportation Phasing Plan. Please see also Appendix B, page 13, paragraphs 5 through 7, for a discussion of study area land use phasing.

28 A footnote has been added to Table 4-3 to explain that the two segments commented upon currently operate at LOS F and D respectively. The far right column of that table indicates that the proposed project will contribute only 1% of the ADT. This information is now also included in the summary. Please refer also to Appendix B, page 16, paragraph 3 for additional details on the street segment operations along Bonita Road.

Page 4-11

Table 4-5 includes a footnote stating that projected levels of service of "D" and "E" on Bonita Road and Sweetwater Road are existing conditions due to rural conditions and, further, these road segments are currently under county jurisdiction and are not significantly impacted by the Eastlake Greens development in the early transportation phasing plan phases.

Page 4-10

Figure 4-7 does not accurately reflect the most current domestic water system plan (see exhibit).

Section 4.1 Page 4-42

Para. 1 1.99 mgd of water should be changed to 1.77 mgd based upon the updated figures generated by NBS/Lowry which are indicated below.

Table 4-6

The table should be modified as indicated:

Land Use	Units	Demand Factor	Demand (mgd)
Residential Village Center	9113 persons 47.4 ac	189 gal/capita 2600 gal/ac	1.64 9.13 1.77 mgd

References to parks, schools and use of reclaimed water should be deleted from the table.

Page 4-43

Para. 2 should delete references to reclaimed water consistent with our previous comments.

Page 4-45

Based upon updated figures generated by NBS/Lowry, the Table 4-8 should be modified to reflect, under residential use, 3,547 persons with a demand of 0.64. Thus the new total becomes 0.90 mgd.

29 Comment noted.

30 The revised graphic included in the FEIR is accurate.

31 Thank you for this new information. The figure has been changed accordingly.

32 The table has been corrected as suggested.

33 References to reclaimed water have been deleted from paragraph 2 of former page 4-43.

34 The table has been corrected per the updated figures generated by NBS/Lowry.

Page 4-46

Para. 2 should reflect the fact that reclaimed water is being proposed for use throughout the project.

Section 4.3.2 Page 4-47

Para. 3 0.91 mgd should be changed to 0.96 based upon updated figures generated by NBS/Lowry.

Page 4-48

Table 4-9 should be modified as indicated:

Land Use	Units	Flow Coefficient	Flow (mgd)
Residential Public/quasi public	9113 persons*	80 gpcpd	1.01
Village Center	31 acres	1500 gpcpd	0.42
High School	47.4 acres	2500 gpcpd	.049
Elementary School	2400 students	20 gpcpd	.048
	800 students	15 gpcpd	.092
Total Daily Flow			0.96 mgd

Page 4-49

Figure 4-9 does not reflect the most current waste water system plan (see exhibit).

Page 4-50

Para. 4 1.16 mgd should be changed to 0.96 mgd and 58 percent should be changed to 44 percent to reflect updated figures generated by NBS/Lowry.

Page 4-51

Para. 1 1.16 mgd should be changed to 0.96 mgd to reflect updated figures generated by NBS/Lowry.

35 The text has been changed to reflect the fact noted.

36 The number has been changed to 0.96.

37 The table has been modified as indicated.

38 A new figure that reflects the most current waste water system has been inserted.

39 The text referred to has been revised based on Wilson's recent studies (1989a, 1989b).

40 This portion of the text has also been revised based on Wilson's studies (1989a, 1989b).

Page 4-52

Table 4-11 should be modified as indicated:

Land Use	Units	Flow Coefficient	Flow (mgd)
Residential	4410 persons*	80 gpcpd	.35
Retail	15.0 acres	2500 gpcapd	.038
Public/quasi public	16.5 acres	1500 gpcapd	.025
			.413

41 Table 4-11 has been modified as indicated.

Section 4.1.1 Page 4-56

Para. 1 The Eastlake Elementary School (Eastlake 1) is scheduled to open in fall 1989 and Eastlake High School is under construction and scheduled to open in fall 1991.

42 The text has been revised to include this updated information.

Page 4-57

Para. 3 It should be noted that both Sweetwater Union High School District and Chula Vista City School District have adopted Mello-Roos financing districts covering the entire property to assure the construction and financing of schools within the Eastlake community. A total of 4 elementary schools, 1 high school and 1 junior high school have been financially guaranteed for the project to accommodate the capacity anticipated by the Districts.

43 The text has also been revised to include the updated information

Page 4-61

Para. 3 water pressure on Eastlake Greens site is adequate to provide for fire service, however, the fire department will likely be required to use pressure reduction valves or pressure reducers to provide safe water pressure and water flows. Meetings have already occurred between Otay Water District and the Chula Vista Fire Department to discuss this requirement and the needs of the Fire Department will be met.

44 Revisions have been made to the text to reflect this information.

Page 4-95

Figure 4-13 does not reflect the most current storm water system plan (see exhibit).

45 Revised Figure 4-13 does reflect the most current storm water plan.

Section 4.7.1.1 Page 4-98

The section should be modified as follows: "The oligocene Otay and Sweetwater formations, which underlie the majority of the project site, possess a high potential for containing significant fossils. The Sweetwater and Otay formations are comprised of fluvial and lacustrine sediments."

46 The text has been revised as suggested.

Para. 2 the last sentence should be modified as follows: "This formation possesses a large potential for containing significant fossils."

47 Because the potential for destruction of significant paleontological resources exists, the text retains the words "and destroy."

Section 4.7.1.2 Page 4-98

The section should be modified to include the following: "Large scale landform alterations and grading may expose subsurface fossil-bearing strata. New and important paleontological data may be provided through examination of cuts during grading operations."

48 Reference to future soil and geotechnical borings has been deleted from Section 4.7.2.

Section 4.7.1.1 Page 4-99

The section should be modified as follows: "To ensure that significant and potentially unique fossils and paleontological resources are recorded, it is recommended that a qualified paleontologist monitor the grading activities during development of the EastLake Greens site and the EastLake Trails site."

49 Because it is important to not only record but to examine and analyze paleontological resources of the importance of those likely to be present in EastLake Greens/Trails, the text remains as in the DEIR except for the deletion of the word "initial" from line 3 of the paragraph under 4.7.3.

Section 4.2.1.2 Page 4-112

The location of the Equestrian Center in Salt Creek in the Eastlake Trails neighborhood will require some modification to the soil and will be studied in greater detail in SPA level plans specific to the Trails.

50 This comment refers to page 4-117 not 4-119 of the DEIR. The text has been revised to reflect the information provided.

Mr. Doug Reid
May 23, 1989
Page Nine

Lastly, for your information, I have enclosed a summary discussion of the project impacts prepared by EastLake Development Company. You may find this useful for distribution to the Planning Commission or other interested parties.

Doug, although our comments are somewhat lengthy, I think you will concur they constitute only minor clarifications. On behalf of EastLake Development Company I would like to thank you and ERC for an excellent job preparing the EastLake II EIR.

Sincerely,

EASTLAKE DEVELOPMENT COMPANY



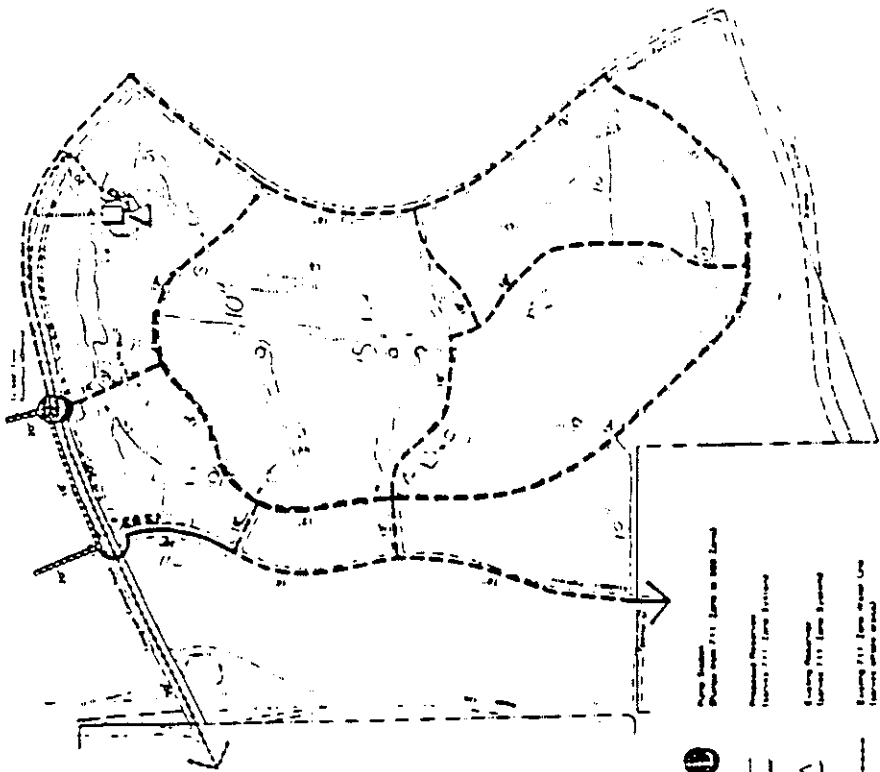
Kent Aden

Director, Community Development

KA:bh

51 Thank you for including the summary. It has been incorporated, in large part, into Section 4.13 of the FEIR, Summary of Analyses of Threshold/Standards.

52 Your prediction was accurate. Thank you for your comments.



- ① Water Supply Point from 711 Line to 800 Line
 - Proposed Building Footprints 711 Line System
 - △ Existing Building Footprints 711 Line System
 - Existing 711 Line Water Line (Service to 800 Line)
 - Replacement of Existing 711 Line Water Line
 - Existing 800 Line Water Line
 - Proposed 800 Line Water Line (Service to 711 Line System)
- NOTE: All Construction is to be completed.



SOURCE: URS & Associates 1989

FIGURE 4-7

Domestic Water Plan



4-40

**EASTLAKE GREENS/ EASTLAKE TRAILS
SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (SEIR)
SUMMARY**

PROJECT

Eastlake Greens/ Eastlake Trails

REF. PAGE

4 - 18

IMPACT

Project is proposed to add a significant number of average daily trips (ADT) to the internal and external street systems.

DISCUSSION

Issuance of building permits is tied to the construction of all necessary street improvements both on and off-site as listed in Public Facilities Financing Plan. Chula Vista Transit services will be extended to the project. An extensive pedestrian and bicycle trail system will provide transportation alternatives within the project. Carpooling will be encouraged by the construction of a 120 space parking facility within EastLake I. All roads within the project will be constructed to the ultimate City standards. A fee in excess of \$2,000 per dwelling unit is being paid toward the completion of regional transportation facilities.

SIGNIFICANCE

With the implementation of proposed measures there will be no significant adverse impacts.

4 - 31

The EastLake II project can develop to 3,753 dwelling units and 15 acres of commercial uses prior to the construction of State Route 125, assuming land use planning and street improvements are consistent with the assumptions utilized in the draft East Chula Vista Transportation Planning Plan. EastLake II can fully build out if State Route 125 is constructed between Telegraph Canyon Road and State Route 54 as a four-lane freeway to achieve acceptable levels of service within the study area. "Quality of Life thresholds" would be maintained.

<u>DISCUSSION TOPICS</u>	<u>REF. PAGE</u>	<u>IMPACT</u>	<u>DISCUSSION</u>	<u>SIGNIFICANCE</u>
Public and Community Facilities	4 - 48	Development will increase the demand for additional parking	Over 42 acres of neighborhood and community parks will be featured in the project. An extensive pedestrian and bicycle trail system will be constructed. An 18 hole 140-acre golf course and country club will be incorporated into the project. The requirement for 3 acres of park per 1,000 residences will be exceeded.	No potential impacts at this time.
Police Facilities	4 - 49	Additional demands will be placed on an understaffed police beat.	Additional police officers will be added using funds generated by the project and other similar developments. A police staff room within EastLake I will also serve this project.	Mitigated to a level of insignificance.
Sanitary Services	4 - 54	There are presently no sewer facilities on the property. The San Diego Metropolitan Sewerage System (METRO) has capacity sufficient to serve the proposed project.	A number of on site improvements will be constructed to transport project generated waste via City of Chula Vista Sewerage facilities into the METRO system. An overflow pump station will be constructed while additional decisions regarding the construction of an onsite water reclamation plant or diffuse sewer lines are being considered. Further regional sewer capacity requirements are under evaluation and mitigation will ensue through the Public Facilities Financing Plan.	Construction of additional sewerage facilities will mitigate project specific impacts.
Water Availability	4 - 46	An adequate water supply will be necessary for domestic and recreational water demands. Recreational water consumption will increase.	Adequate water storage and distribution facilities will be constructed in conjunction with the project development. A site has been referred for the construction of a new 50 million gallon reservoir. Low flow and water efficient plumbing will be incorporated into the project design. Water conservation measures including automatic moisture sensing irrigation and use of reclaimed water for on site grading and irrigation purposes will be undertaken.	Project development represents an adverse though not a significant impact.

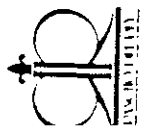
<u>THRESHOLD TOPICS</u>	<u>REF. PAGE</u>	<u>IMPACT</u>	<u>DISCUSSION</u>	<u>SIGNIFICANCE</u>
Air Quality	4 - 104	Increase in stationary and mobile emissions associated with population growth	Watering, enforcement of a speed limit on unpaved roads and use of only specially equipped construction equipment is planned to reduce the dust and emissions generated during construction. All materials affected by the project maintained at current level or improved to provide LOS C or better. Development of bus and pedestrian trails to encourage environmentally sensitive travel. Public transit routes and bus stops located throughout the project.	Potentially significant cumulative impacts
<u>OTHER TOPICS</u>	<u>REF. PAGE</u>	<u>IMPACT</u>	<u>DISCUSSION</u>	<u>SIGNIFICANCE</u>
Energy Efficiency	4 - 119	Loss of existing habitat is not significant. Further impacts cannot be specifically analyzed at this time.		No significant impact expected
Emergency Medical Services	4 - 74	Additional personnel and facilities may need to be added by a private ambulance company.		No adverse impacts
Employment	4 - 125	Project will provide additional commercial retail development and quasi-public developments to the City.	Over 1,700 jobs will be created. Additional tax revenues will be generated.	Increased net revenues to the City will result in a beneficial impact.
Geology/Seismicity	4 - 91	No major geologic constraints. Potential for earthquake hazard, liquefaction, and, expansive clay soils and the generation of hazardous material from debris basins.	Specific guidelines will be implemented pertaining to grading, soil and slope stability fill materials and foundation design.	No significant impacts

<u>OTHER TOPICS</u>	<u>REF. PAGE</u>	<u>IMPACT</u>	<u>DISCUSSION</u>	<u>SIGNIFICANCE</u>
Housing	4 124	Project will include the construction of a wide range of housing stock.	Proposed housing is consistent with housing goals of the City of Chula Vista. Low and moderate income dwelling unit provisions are met. Project phasing and interconnect urban infrastructures and services with the completion of the project. Additional properties can will be generated.	No significant impacts
Highway Work Zone	4 97	Grading and cutting of on-site drainage increased runoff as a result of the construction of impervious surfaces. Erosion potential. Soil build up. Potential downstream flooding. Potential impacts to water quality associated with runoff accumulation.	Further review is necessary for use of materials over the erosion. Recommendations approved by the City of Chula Vista Department Works will be implemented.	No significant impacts
Floodplain	4 115	Contributions to cumulative loss of agricultural land.	Site is not situated on prime agricultural lands. Agriculture is considered an interim use on the site. Proposed uses are compatible with surrounding land uses. Buffers are incorporated in the project design to ensure privacy and reduce light and glare impacts between and areas.	No adverse impacts
Medical Facilities	4 73	Project will generate increased demand for medical services.	Existing medical facilities currently operate at between 62% - 85% capacity.	No adverse impacts
Soil	4 131	Areas adjacent to East Lake Parkway, and the parts adjacent to the high school could experience noise levels in excess of 65db.	Mitigation measures will be implemented to reduce the majority of identified noise impacts.	Impact is below the level of significance.
Lighting and Glare	4 99	Minimal potential for significant adverse impacts to residents. Potential negative impacts during grading.	A qualified representative will monitor initial grading activities.	No significant impacts expected.
Soil Water Disposal	4 73	Life of existing landfill will be decreased.	Landfill capacity is expected to be reached by 1999.	No significant impacts

<u>OTHER TOPICS</u>	<u>REF. PAGE</u>	<u>IMPACT</u>	<u>DISCUSSION</u>	<u>SIGNIFICANCE</u>
Exposure Signs	4-74	Fencing lines will need to be constructed	Line construction costs will be borne by EastLac	No adverse impacts
Visual Resources	4-72	Alteration of landform and visual character of the site	Use-site terms will not change significantly. Fencing lines will be constructed with regard to design and orientation of structures. Landscaping signs and station adjacent to scenic routes	Mitigated to a level of insignificance

ADDITIONAL AREAS WHERE IMPACT IS NOT SIGNIFICANT

Visual Resources
 Cultural Resources
 Biological Resources



OFFICE OF THE
MANAGER
CITY OF CHULA VISTA
1000 E. BROADWAY

May 22, 1989

MAY 22 1989

Mr. Doug Reid
Planning Department
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

RE: DRAFT EIR - EASTLAKE GREENS

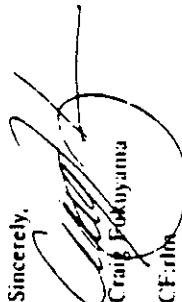
Dear Mr. Reid:

Please accept this letter as a formal comment by the Rancho del Rey Partnership to the Draft EIR for the Eastlake Greens project.

Attached is a letter dated May 19, 1989, from Kenneth Bankston stating our comments to the Draft EIR. Please note that Table 1 (Land Use Development by Year - Occupancy) of his letter is based on building occupancy. Also attached is a letter dated January 31, 1989, from Ken Baumgartner to George Simpson transmitting an updated buildout schedule for Rancho del Rey, which was to be included in the Transportation Phasing Plan. This schedule is based on building permits. These schedules are the same except that the "Occupancy Schedule" reflects a six month time frame after building permits are pulled.

If you may have any questions regarding our comments, please contact me or Kenneth Bankston (at 415-843-9746).

Sincerely,


Craig Fukuyama
CF:rlh

cc: George Krentz - Planning Department
John Lippitt - Public Works Department
Hal Rosenberg - Public Works Department
Kenneth Bankston - Bankston-Pine Associates, Inc.

May 19, 1989

Mr. Craig Fukuyama
McHillin Development
2727 Hoover Avenue
National City, CA 92050

Subject: Review of East Lake Greens DEIR-Traffic Analysis

Dear Mr. Fukuyama,

In accordance with your request, we have reviewed the above referenced report. Our comments are as follows:

1. Appendix B, Traffic Analysis (Willdan Associates), Page 13. Under "Land Use Phasing", reference is made to the East Chula Vista Transportation Phasing Plan (ECTPP) which was used as a basis for analyzing cumulative plus project traffic for the above noted DEIR traffic analysis. In the bottom paragraph of page 13, the report states that for cumulative traffic...major developments include...Rancho Del Rey (SPA 1 & 2).

Comment: Table J, after page 16, includes for all 5 phases, only a portion of Rancho del Rey, SPA 1. For the purposes of the ECTPP study, all of Rancho Del Rey SPA 1, II, and III as included in the Approved Rancho Del Rey Specific Plan (1985), should be included in Table J and incorporated as part of the cumulative traffic for both the ECTPP and the subject DEIR Traffic Analysis.

Our attached Table 1 shows the current development schedule for Rancho Del Rey beginning in 1990 and extending through 1994. For purposes of the ECTPP analysis, development shown under 1994 is assumed to be occupied after SR 125 is in place. Therefore, the ECTPP analysis should include from Table 1:

- 1990 development in Phase 1
- 1991 development in Phase 2
- 1992 development in Phase 3
- 1993 development in Phase 4
- 1994 development in Phase 5

Transportation Planning and Traffic Engineering Consultants

54

Rancho Del Rey land use phasing, SPA 1 and 2, is included in the ECVTPP. Specific changes in phasing noted in Rancho Del Rey's January 31, 1989 letter to George Simpson were not included, however, because of base phasing provided to Willdan Associates in 1988. The ECVTPP will be revised on an annual basis and more up to date project phasing will be included in these updates to reflect City-approved changes in development patterns.

2. Page 2-7, Table 2-1. Comment: The number of DU's don't add up across and vertically. What is the correct number of DU's?

3. Page 4-19. Para 2. The report states that a project of this type would result in approximately 15 to 20 percent internal trips presumably because of the mixed uses. Yet they also state that 21,915 trips were assumed internal.

Comment: 21,915 trips is 34 percent of the total 63,991 ADF. In our opinion, 20 percent of total trips would be a more realistic estimate. The 15 acres of Village Center and 11 acres of Neighborhood Commercial can be expected to generate a high level of external trips from as far as 4 miles away.

With an assumption of 20 percent internal trips, 51,193 trips should be assigned which is 9,117 trips more than the 42,076 trips assigned.

4. Page 4-19, last Para. The report indicates that Project traffic has been assigned in a full build-out condition with SR 125 in place, i.e. sometime after 1996 (see Table 2-3). They also say... "Short term distributions (without SR 125) would be significantly different, as the majority of the traffic would utilize Telegraph Canyon Road, East "H" Street, and Gray Lakes Road to reach most destinations."

Comment: In our estimation, this is a MAJOR shortcoming of the DEIR traffic impact analysis because some of the development will be phased in before SR 125 is in place. For example, Table 2-4 indicates that 3,754 DU's will be occupied by 1994. Current plans are for SR 125 to be in place after 1995. Therefore, there should be an analysis of project traffic impacts by year from project inception in 1990 to 1994 or 1995 assuming no SR 125 in place. Such a study would find considerable interim impacts on such major arterials as East "H" Street which are already encumbered by other City agreements for the period up to the opening of SR 125. Intersection impacts may be even more critical in this interim period and therefore should be studied.

At a minimum, a figure such as Figure 4-4 on page 4-22 should be provided which would show project traffic only for 1994 without SR 125.

55 The arithmetic errors in Table 2-1 have been corrected.

56 The phrase "or 21,915 trips" has been replaced with "of the trips" in the FEIR text. Please refer also to Appendix B, page 13, paragraph 2 which states that if one-half of the 21,915 nonresidential trips originated from residential uses within the project, this would represent a 17 percent trip reduction to the external street network.

57 The referenced paragraph has been deleted. Please refer to Appendix B, page 13, paragraphs 5, 6, and 7. Also, the analysis of the EastLake II project prior to SR 125 was performed in the ECVTPP Phase 4 and all street segments were projected to operate at LOS C or better. Should street segments and intersections fall below the LOS C threshold (City of Chula Vista Threshold/Standards), development would cease until improvements were completed to ensure LOS C or better.

Page Three
Mr. Fukuyama
May 19, 1989

5. Page 4-25 and 4-26, Table 4-3. The report should define what time period is encompassed by 'Short Term'. Then they should perform an analysis similar to the buildout analysis for the shorter term assuming that SR 125 is not in place. (See item 3 above.)

Sincerely,

Bankston/Ping Associates, Inc.

Kenneth M. Bankston

Kenneth M. Bankston, P.E.
Principal

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Short-term cumulative conditions refers to ECVTPP phase 5 development plus the buildout of East Lake II. Land use phasing is explained in Appendix B, page 13, Land Use Phasing section. Also refer to response 57 above.

Table 1

Land Use Development by Year (Occupancy)
 Rancho Del Rey
 SPA I, SPA II, and SPA III Development
 Chula Vista, California

Phase	Land Use	Year Occupied			1994 or after SR 125
		1990	1991	1992	
SPA I					
Phase 1	Commercial Acreage	(3.62)	(3)		40
Phase 2	Industrial Acreage	(14.18)	(22)		
	Apartment	500			
	Condos	181	104	10	
	Single family (d.u.'s)	102			
Phase 3	Single family (d.u.'s)	250	112	48	
Phase 4	Single family (d.u.'s)	99	72	18	
Phase 5	Duplexes				56
	Single family (d.u.'s)				167
Phase 6	Townhouses				48
	Single family (d.u.'s)				95
					58
					132
					69
SPA II					
Phase 1	Single family (d.u.'s)		192	146	
Phase 2	Single family (d.u.'s)		84	145	
SPA III					
Phase 1	Retirement (d.u.'s)		180	161	132
Phase 2	Single Family (d.u.'s)		111	99	23
Phase 3	Townhouses Single Family (d.u.'s)			48	96
				132	191
					42
TOTAL DWELLING UNITS		1132	855	807	848
					466

Bankston/Pine Associates, Inc.

January 31, 1989

Mr. George Simpson
Infrastructure Planning & Finance
4337 Pt. View Court
La Mesa, CA 92041

SUBJECT: RANCHO DEL REY PROJECTIONS

Dear George:

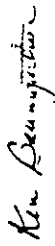
I am enclosing the most current information on the Rancho del Rey project and our current build out schedule for inclusion in the proposed Transportation Phasing Plan.

The Rancho del Rey Partnership has graded Phases 2, 3, and 4 of our SPA I plan which contains approximately 1300 units. We have completed or have under construction or design three major road projects: East "H" Street, Otay Lakes Road, and the East "H" Street/I-805 intersection. Additionally, two major parks, 34 acres and 16 acres, are graded and are being developed as community parks.

We hope these enclosed projections will be included in the TPP.

If you have any questions, please contact me.

Sincerely yours,



Ken Baumgartner

cc: Mr. John Lippitt, City Engineer
Mr. Bob Bergant, Willdan
Mr. George Krempf, Planning Director



The Baldwin Company
Craftsmanship in building since 1916

May 14, 1989

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

RE: Draft EIR on Eastlake II (Eastlake Greene/Trails)

Dear Mr. Reid:

Table 4-10 on page 4-51 of the above Environmental Impact Report lists sources of additional sewage in the project vicinity. However, the Salt Creek One and Salt Creek Ranch projects have not been included and are anticipated to be contributors beginning in the period 1990-1991.

Attached are master studies of sewer requirements for Salt Creek One and Salt Creek Ranch which were prepared for the EIR's of those projects, currently being drafted under contract to the City of Chula Vista.

Sincerely yours,

THE BALDWIN COMPANY

J. M. Hartler
 James M. Hartler
 Vice President and Project Manager

Attachments

cc: Mr. Kent Aden

JMH:nc

60 Thank you for providing this useful information. The reports are on file with the City of Chula Vista.



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SECTION 1 INTRODUCTION AND SUMMARY

1.1 PURPOSE OF THE EIR

This Supplemental Environmental Impact Report (SEIR) has been prepared for the City of Chula Vista on the proposed EastLake Greens/EastLake Trails project. The California Environmental Quality Act (CEQA) of 1970 requires the preparation of EIRs or other environmental analyses for any discretionary project the City of Chula Vista may approve. The purpose of an EIR is to inform the public and decision makers about the nature of a project being considered and the extent and kinds of impacts the project and alternative projects would have on the environment if the project were to be carried out. Environmental Impact Reports must contain discussions of specific topics as outlined in guidelines for the implementation of CEQA prepared by the State Secretary for Resources. These guidelines are periodically updated to comply with changes in CEQA and court interpretations.

A Master EIR for all the EastLake development (including EastLake Greens/Trails) was completed in February of 1982. In addition, 392.1 acres of EastLake Greens were reviewed in an EIR prepared for EastLake I in January 1985. The document contained herein presents additional information, and covers effects on the environment which are specific to the EastLake Greens/Trails site and those that were not previously addressed as significant effects.

The SEIR contains sections required by CEQA, such as a summary, project description, environmental setting and project alternatives, as well as a detailed impact analysis. The impact analysis, Section 4, addresses the following issues: land use, transportation and circulation, services/utilities, visual resources, geology/soils, hydrology/water quality, air quality, socioeconomics, fiscal impacts, noise, biology and paleontology, and energy. Each of the impact analysis sections discuss impacts associated with the implementation of the EastLake Greens SPA Plan and the annexation of the EastLake Trails acreage.

The final chapters of the SEIR include the following:

- Growth inducement
- Effects found not to be significant
- The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity
- Significant irreversible environmental changes

This Draft Supplemental Environmental Impact Report will be available for review by the public and public agencies for a period of 30 days. Comments on the SEIR are invited and may be submitted to the City of Chula Vista Department of Planning, 276 Fourth Avenue, Chula Vista, CA 92010. The Draft SEIR will be available at the Department of Planning and the Chula Vista City library. The Department of Planning will consider all written comments on the Draft EIR before making recommendations to the Planning Commission regarding the extent and nature of the environmental impacts of the proposed project.

The City of Chula Vista Planning Commission will hear further public input and will consider the Final EIR when making recommendations on the project to the City Council. (Contact City Planning at [619] 691-5101 for exact time and date of Planning Commission hearing.) The Council must certify the Final EIR as complete and in compliance with CEQA before considering it in approving or disapproving the project. Public input is encouraged at all hearings. In the final review of the project plan, environmental

considerations as well as economic and social factors will be weighed to determine the most appropriate form of development.

1.2 PROPOSED PROJECT

The proposed project encompasses 1228.4 acres, and includes two primary components: the first is the Sectional Planning Area (SPA) Plan for the 830.5-acre EastLake Greens site and the second is the annexation of EastLake Trails (397.9 acres) into the City of Chula Vista. Both EastLake Greens and EastLake Trails are included in the EastLake I expansion area and will be included in the EastLake I Planned Community District.

The EastLake Greens site lies partially within the Chula Vista city limits and partially within the County of San Diego's jurisdiction. The proposed EastLake Greens project is a second development phase and third residential neighborhood to be developed within the EastLake Planned Community; the first phase was approved by the City of Chula Vista in 1982. The EastLake Greens project includes a detailed Sectional Planning Area (SPA) Plan for the mixed use of 830.5 acres just south of the present EastLake I development in eastern Chula Vista. Discretionary actions for EastLake Greens portion of the project include amendments to the City of Chula Vista General Plan Land Use Map and Circulation Element; rezoning; revisions to the EastLake I General Development Plan; approval of the proposed EastLake Greens SPA Plan and tentative subdivision maps; annexation of a portion of the site into the City of Chula Vista; approval by the Regional Water Quality Control Board; and approval of the Tentative Subdivision Map Development Agreement (which pertains to EastLake Greens in terms of the General Development Plan and related pre-annexation zoning), and Public Facilities Financing Plan.

The proposed EastLake Trails project site, which encompasses 397.9 acres, lies entirely within the County of San Diego and within the City of Chula Vista's Sphere of Influence. Discretionary actions related to the project include amendments to the City of Chula Vista General Plan Land Use Map and circulation element; revisions to the EastLake I General Development Plan; rezoning and annexation of the site into the City of Chula Vista;

1.3 SUMMARY OF IMPACTS

Land Use

Potentially significant impacts related to land use are those typically associated with urban land uses: increased traffic flows, a decrease in air quality, and additional demands on public services and utilities. These items are discussed in later sections of this summary. Impacts associated with the conversion of agricultural and open space to an urban, mixed-use development has been planned for by the City of Chula Vista and analyzed in prior environmental documentation. The project will contribute to the cumulative loss of agricultural land; however, because the site is not situated on prime agricultural soils, and the City considers agriculture an interim use on the site, the loss is not considered to be significant.

The proposed land uses for EastLake Greens are generally compatible with surrounding land uses, both planned and existing. Buffers are incorporated in the project design to ensure privacy and reduced light and glare impacts between the residential uses and the light industrial and commercial uses.

The EastLake Greens project involves a number of policy changes and/or discretionary actions that affect land use policy; no adverse effects are expected to occur as a result of the implementation of these proposed revisions.

The proposed EastLake Trails project also involves a number of revisions to land use policy. These include the annexation and pre-zoning of 397.9 acres, an amendment to the City of Chula Vista General Plan Map, and revisions to the EastLake Policy Plan. No adverse land use effects are expected to occur as a result of the proposed changes.

Transportation/Circulation

Potentially significant impacts related to transportation circulation involve the generation of additional vehicle trips associated with the EastLake Greens project. This additional traffic would result in the reduction of levels of service (LOS) on local street segments and intersections to below acceptable levels (i.e., below LOS C). These impacts will be most evident on Telegraph Canyon Road and various sections along Bonita Road. Two segments of Bonita are already at LOS D and F respectively, and that the project will contribute only 1% of the total ADT to these segments. The mitigations proposed in the traffic analysis report prepared for the project by Willdan Associates and the developer's participation in the East Chula Vista Transportation Phasing Plan would result in no significant adverse traffic impacts from the implementation of the EastLake Greens and Trails project.

Services/Utilities

Significant potential impacts to public services and utilities involve a decrease in the ability to provide adequate services such as water availability, sewer, education, police and fire protection, parks and recreation facilities, library facilities, energy and telephone availability, medical facilities/service, and solid waste disposal. For EastLake Greens, these potential impacts are considered mitigable below levels of significance through implementation of the policies set forth in prior environmental documentation (MEIR, SPA). The specific mitigation measures discussed in this SEIR and the combined cooperative efforts of the developers in the vicinity will result in proper construction and phasing of the proposed EastLake Greens and the needed facilities.

Development of the annexation area (EastLake Trails) would increase the burden to public services and utilities; however, the annexation itself would not create a significant impact. Additional studies must be conducted to determine the specific impacts EastLake Trails would have on the availability of services and utilities.

Visual Resources

Development of the EastLake Greens project would substantially alter the landform and visual character of the site, resulting in a number of potentially significant impacts.

Implementation of the grading plan for EastLake Greens will measurably alter the topographic profile. Approval of the proposed annexation of the EastLake Trails would not directly affect the existing landforms; buildout would, however, change a majority of the existing site from agriculture to an urbanized community.

EastLake Greens on-site views would not change significantly except where determined by project development itself, and panoramic views would remain essentially unchanged. Adverse impacts are associated with the onsite water tank and the proposed second water tank storage facility. An increase in short-term visual impacts related to construction related activities for the development of EastLake Greens would also occur. These impacts are not considered significant due to their limited duration. Overall, potentially significant visual quality impacts are anticipated with buildout of the annexation area.

Mitigation for potential impacts to landform and visual resources are contained in the County of San Diego and City of Chula Vista general plans as well as the EastLake Greens SPA Plan. These plans contain specific measures regarding the design and orientation of structures, landscaping, signs, and utilities associated with developments adjacent to scenic routes. With the implementation of these guidelines and the identified mitigation measures, impacts from the proposed project associated with landform and visual alteration would be mitigated to a level of insignificance.

Geology/Soils

Available data from the site-specific geotechnical investigation indicates that there are no major geologic constraints on the project site that would preclude development. There are, however, potentially significant impacts identified on site. These include expansive topsoil, compressible alluvial and colluvial soils, expansive clay beds, and the generation of oversized material from cemented or dense bedrock. A number of mitigation measures were identified in the geotechnical investigation, including specific guidelines pertaining to grading, soil and slope stability, fill materials, and foundation design. With implementation of these mitigation measures, no significant geotechnical conditions would adversely affect the proposed project.

Hydrology/Water Quality

Potentially significant impacts related to hydrology and water quality are associated with the EastLake Greens project. Grading and infilling of onsite drainages and the construction of impervious surfaces would increase the amount of surface runoff. Increased runoff would generate high erosional potential from soil materials, creating deep erosion gullies, unstable slopes, build-ups of silt deposits within drainage courses, at the toe of slopes, and in storm drains (San Diego Soils Engineering, Inc. 1986). In addition, an increase in runoff would magnify the potential for flooding problems downstream from the site.

Potential impacts to water quality are associated with runoff contamination. If reclaimed water is used for irrigation as proposed, further environmental review may be necessary.

Annexation and pre-zoning of EastLake Greens would not induce impacts to hydrology and water quality. Prior to development of the area, a detailed drainage plan would be required to further assess planned drainage facilities.

No significant, unmitigable impacts to hydrology or drainage would result from project implementation if recommendations contained in the preliminary geotechnical report and drainage system plans are approved by the City of Chula Vista Department of Public Works.

Paleontological Resources

There is potential for adverse impacts to significant paleontological resources for EastLake Greens/Trails; significant impacts in the project area could occur during grading. Significance of these impacts cannot be determined at this time. To ensure that paleontological resources are not destroyed, a qualified paleontologist should monitor grading activities during development of the EastLake Greens and EastLake Trails site.

Air Quality

Potentially significant cumulative impacts to air quality have been identified. These impacts are related to the increase in both stationary and mobile emissions associated with the projected population growth (and the subsequent increases in vehicular traffic, etc.). In addition, because a portion of the project was not included in the SANDAG Series 5 and 7 growth forecasts, (the basis for the air quality attainment plans contained in the 1982 SIP revisions and the 1985 progress report of the APCD) EastLake Greens/Trails is considered to have a potentially significant, cumulative air quality impact. Consequently, the City of Chula Vista will annually provide San Diego Air Quality Control District with a 12 to 15 month development forecast to evaluate impacts related to air quality (Chula Vista 1987). The more recent SANDAG Series 7 forecasts, containing the EastLake II development, will be used in the next SIP revisions.

Although the project can incorporate a variety of mitigation measures to reduce short- and long-term air quality impacts, the development would still represent growth that was not considered in SANDAG's Series 5 and 6 growth forecasts, and therefore the project could potentially have a significant cumulative impact on air quality even after mitigation measures have been implemented.

Biological Resources

Potentially significant impacts to existing habitats, including foraging habitat, within EastLake Greens are not expected to occur.

Biological impacts related to the Salt Creek drainage cannot be specifically analyzed at this time, and further environmental analysis will be required relative to the EastLake Trails SPA and Tentative Map.

Socioeconomic Factors

Potential impacts to socioeconomics involve population, housing, and employment. Population impacts are considered mitigable by incorporating proper phasing of urban infrastructures and services with the project itself. The proposed housing is consistent with housing goals of the City of Chula Vista as well as the provisions for low to moderate income dwelling units. The EastLake Greens provides higher employment opportunities than originally anticipated when the EastLake Community Plan was approved. Both housing and employment do not represent significant potential impacts, and therefore, no mitigation measures are necessary.

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

Noise

Potentially significant impacts associated with the EastLake Greens project impacts were calculated using the Federal Highway Administration Stamina 2.0 Noise Prediction Model. In residential areas adjacent to EastLake Parkway, between the northern and southern entry roads and the park proposed adjacent to the high school noise levels would exceed 65 dB(A). Exterior noise levels above 65 dB(A) CNEL are considered incompatible with both residential and parkland areas. These areas would also experience significant interior noise impacts.

Mitigation measures have been developed which would reduce the majority of identified noise impacts below levels of significance. Additional attenuation would be needed in the areas exceeding the City standards. An additional acoustical analysis would be required to ensure that interior noise levels of 45 CNEL are not exceeded.

Impacts cannot be assessed for the EastLake Trails until detailed site plans are prepared for the site.

SECTION 2 PROJECT DESCRIPTION

2.1 LOCATION

The EastLake Greens/Trails project site is approximately 7.5 miles east of downtown Chula Vista and 8 miles north of the United States/Mexico International Border (Figure 2-1). The 1228.4-acre site is partially within the City of Chula Vista's corporate boundaries and partially within unincorporated County lands in the City of Chula Vista's Sphere of Influence. The site lies approximately 0.5 mile west of the Lower Otay Reservoir (Figure 2-2).

2.2 PROJECT OBJECTIVES

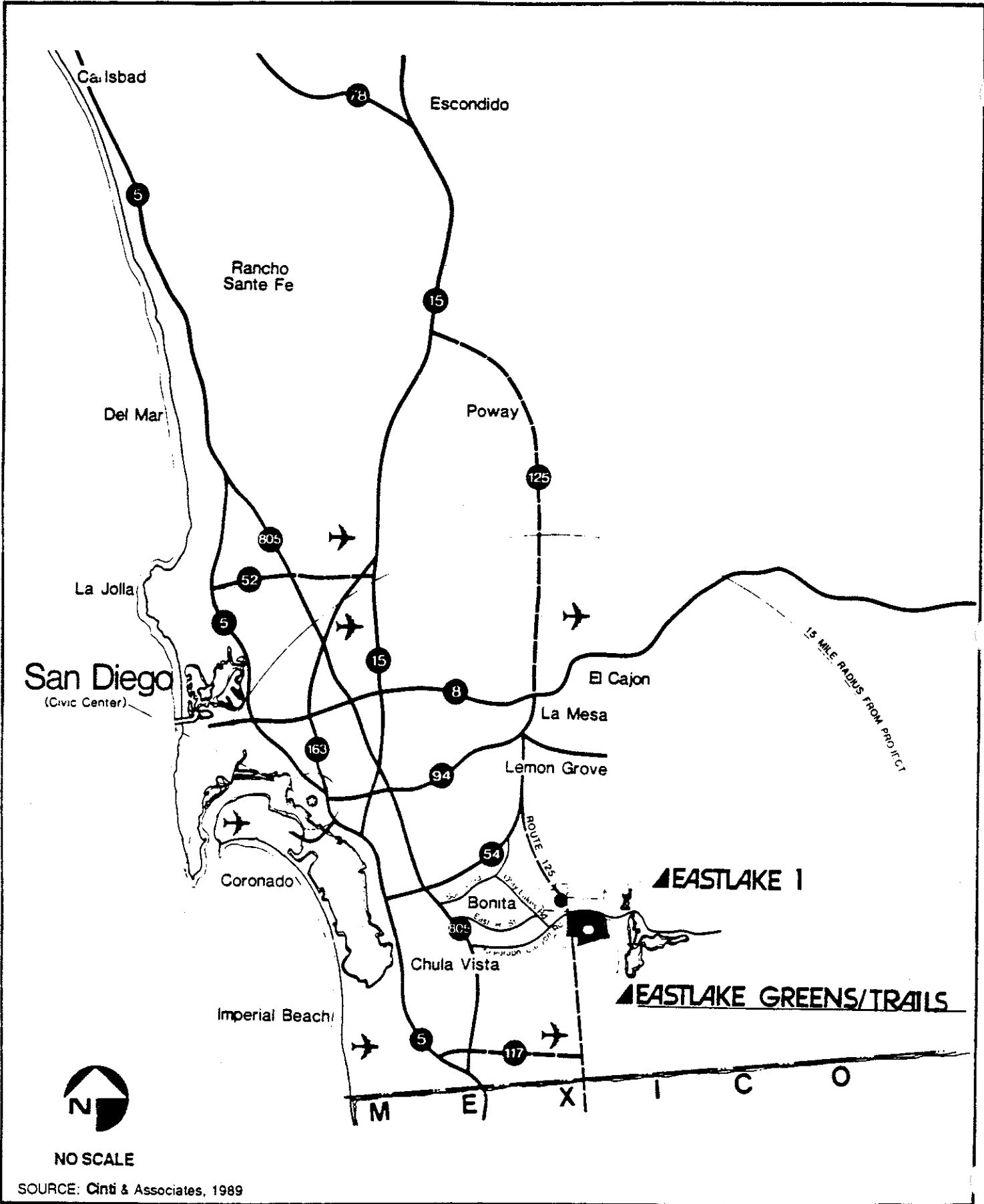
The proposed project intends to develop 830.5 acres within the EastLake Greens, through the implementation of a Sectional Planning Area (SPA) Plan and tentative maps, on land currently within the City of Chula Vista and the County of San Diego and to annex 397.9 acres to the City of Chula Vista for the EastLake Trails. The project would be included in an EastLake I expansion area. The objective of the SPA Plan is to provide guidelines for future development within EastLake Greens; no SPA Plan has been prepared for EastLake Trails, because pre-zone and annexation of the property to the City is the goal of this project. Development of EastLake Trails will be subject to future SPA Plan approval. Both developments would ultimately feature a mix of commercial and residential uses and a number of community improvements and amenities, details of which are contained in Section 2.4.

2.3 REQUIRED DISCRETIONARY ACTIONS

The proposed EastLake Greens/Trails project requires several discretionary approvals by the City of Chula Vista. The site lies within the boundaries of the EastLake Planned Community; only a portion of the site, approximately 392.1 acres, is within the Chula Vista corporate boundaries. This 392.1-acre portion is part of the EastLake I (first phase) Planned Community (P.C.) District created in 1982. The General Development Plan for the Eastlake I project established the zoning and constitutes the General Plan for the P.C. District area. The remaining 836.3 acres of the project site lie outside the City boundaries but are currently designated by the City for Future Urban use and are proposed in the General Plan Update as residential uses (Figure 2-3). Discretionary actions include the pre-zoning of property and its annexation from the County of San Diego to the City of Chula Vista, consistent with the adopted Sphere of Influence of the City.

This acreage will be included as part of the EastLake I P.C. District, and the land is proposed to be pre-zoned as Planned Community at the time of annexation.

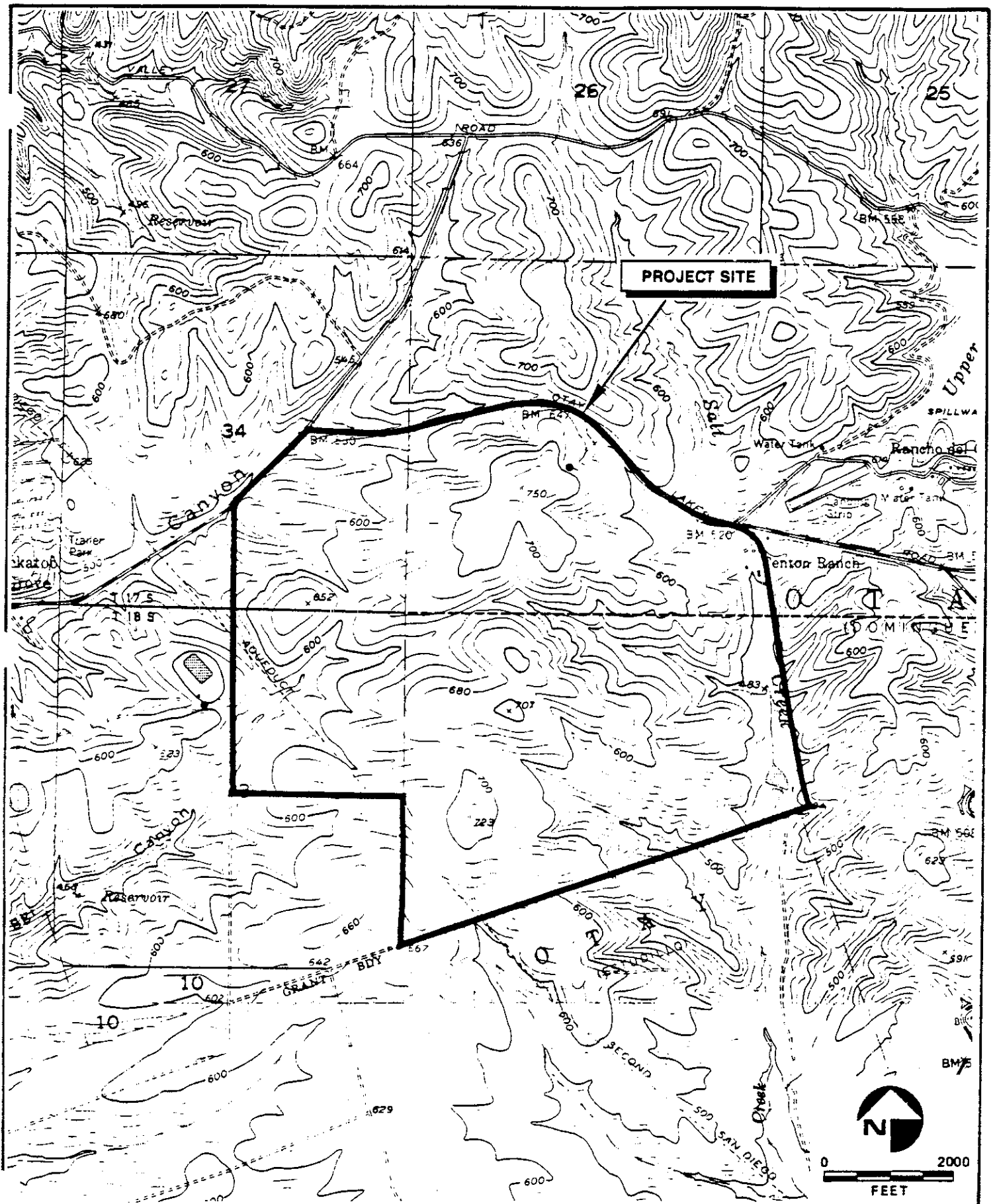
Another discretionary action involves the incorporation of the annexed land into the EastLake I P.C. District, increasing the District from 1267.9 acres to 2104.2 acres. This action includes the approval of amendments to the EastLake I General Development Plan and the EastLake Policy Plan text. Additionally, amendments to the City of Chula Vista's Circulation Element, including revisions to the proposed alignments of Orange Avenue and Otay Lakes Road and to the road classifications for EastLake and Hunte Parkways, would be necessary to implement the proposed General Development Plan amendment.



Regional Location Map

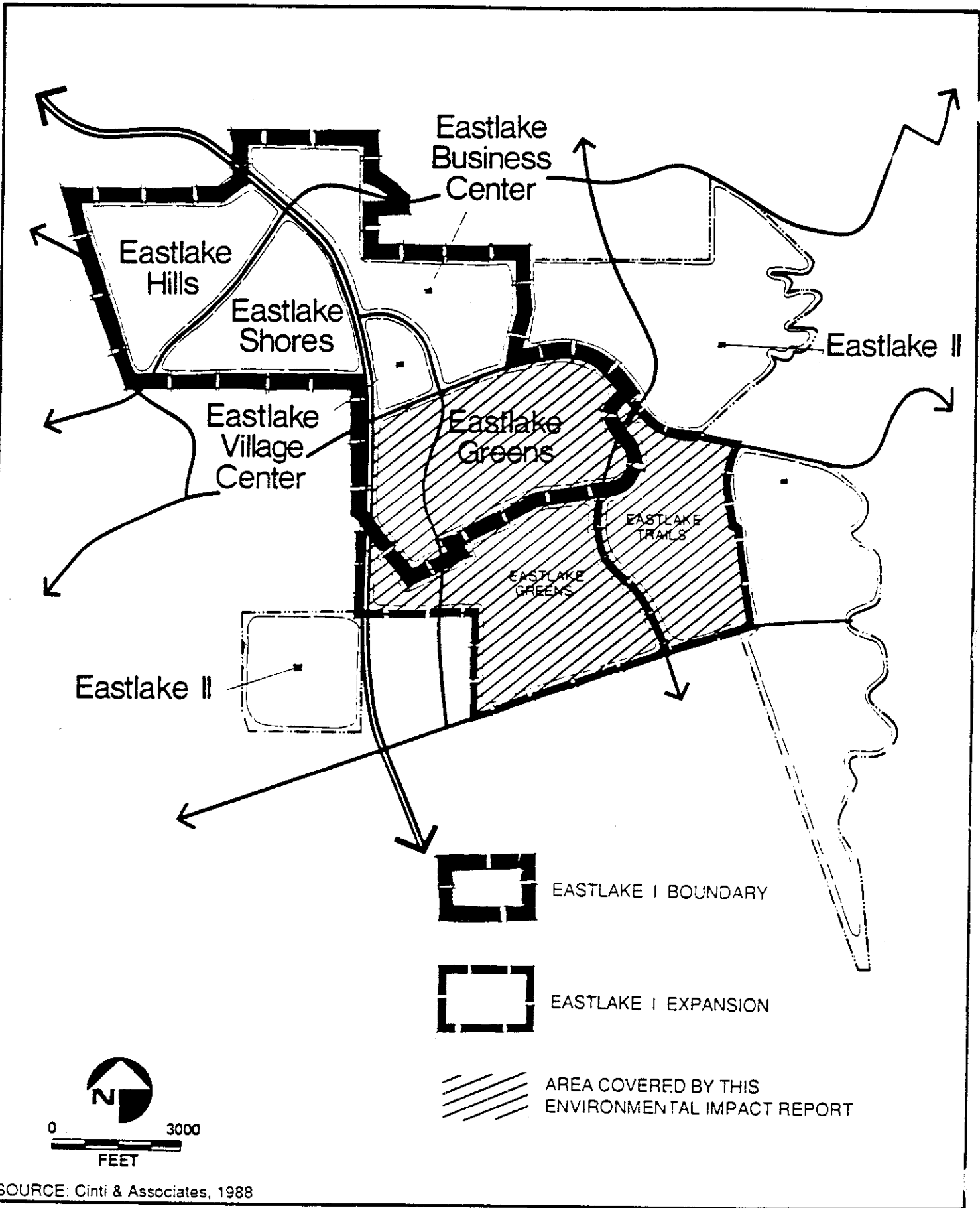
**FIGURE
2-1**





Location and Topography of Project Site
(Portions of USGS 7.5 Otoy Mesa and Jamul Mountain Quads)

FIGURE
2-2



Project Components

**FIGURE
2-3**



2.4 PROJECT CHARACTERISTICS

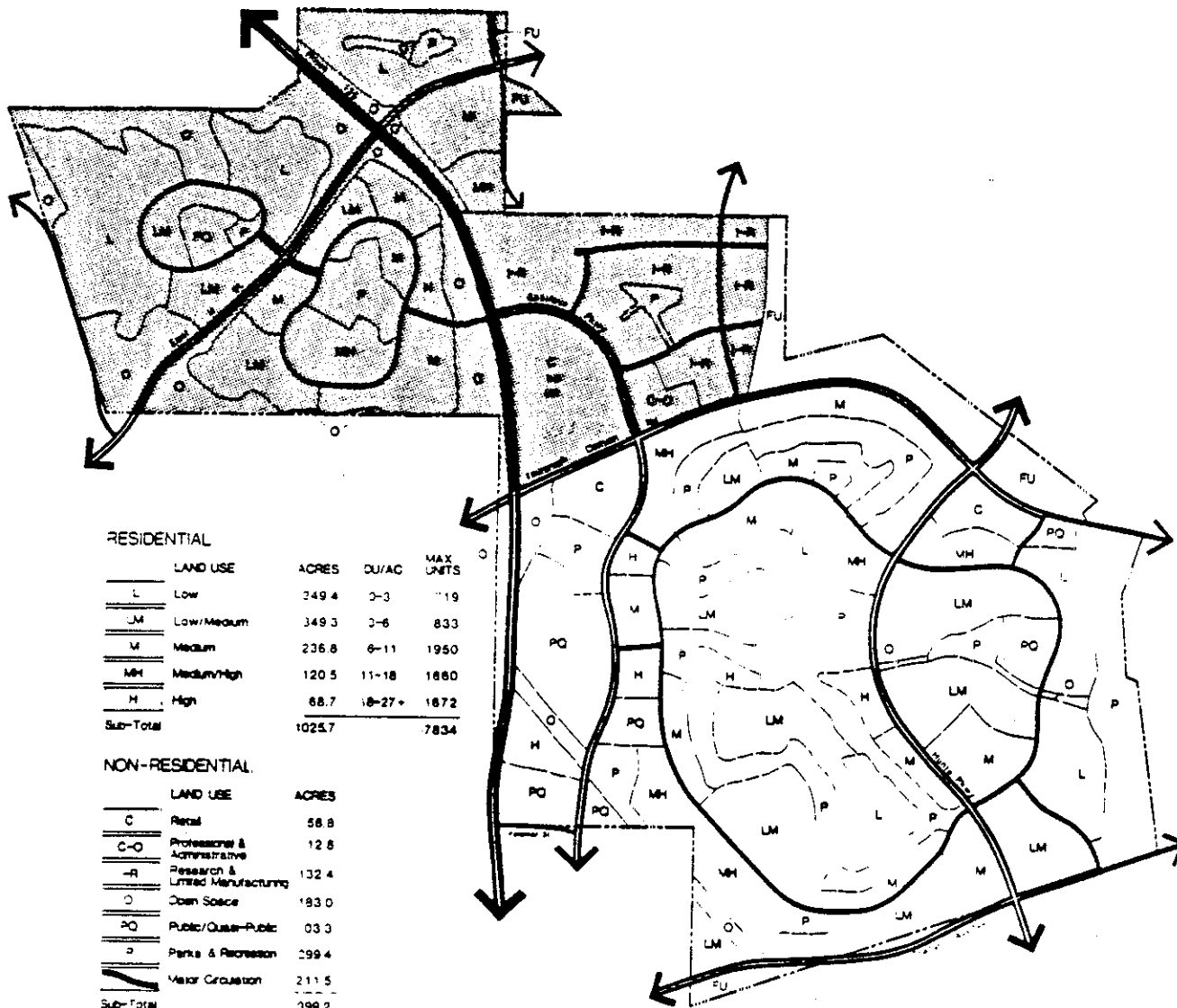
Proposed General Development Plan Amendment: The existing General Development Plan adopted in 1985 for the EastLake P.C. District must be amended. The amendment would expand the EastLake I P.C. District boundaries to include the additional EastLake Greens/Trails acreage (1228.4 acres) proposed for annexation for a total of approximately 2104.2 acres. Figure 2-4 shows the proposed General Development Plan and Table 2-1 shows the change in land uses in EastLake I as a result of this proposed amendment. The land uses designated in the original EastLake I SPA, approved in 1985, would not change; however, the 836.3 acres covered in the proposed EastLake Greens SPA and the EastLake Trails annexation area would now be included in the EastLake I General Development Plan. Text changes to the General Plan EastLake Policy are also proposed to implement the proposed land use changes.

Tables 2-2 and 2-3 show the land uses proposed for the EastLake Greens and EastLake Trails properties, respectively. The EastLake Greens project includes both the proposed EastLake Greens residential neighborhood and an "activity corridor" along EastLake Parkway. Of the 1228.4 acres included in both the EastLake Greens and EastLake Trails projects, 620.6 acres would be designated for residential uses ranging from low/medium densities (3.0 to 6.0 dwelling units per acre [du/ac]) to high densities (18.0 to 27.0+ du/ac). Average over-all density would be 7.8 du/ac with a maximum number of 4869 dwelling units.

All of the residential neighborhoods as well as the golf course would be located east of the proposed EastLake Parkway and south of Otay Lakes Road (Telegraph Canyon Road). As can be seen in Figure 2-4, the proposed 18-hole golf course would serve as the focal point of the EastLake Greens community. The golf course would provide a prominent greenbelt which would wind through the residential area. An equestrian center located in the Salt Creek open space corridor is proposed to serve as the neighborhood focal point and theme for the EastLake Trails community. Non-residential uses proposed in the EastLake Greens development include a 19.6-acre retail center, two school sites, churches, several parks, a golf course, and other open space. Such uses within the EastLake Trails community include a 15.0 acre commercial site along Otay Lakes Road, a school site and a number of park sites. The project applicant has also offered a site to the Otay Water District within the EastLake Greens project area (parcel PQ-2 in Figure 2-5) as a potential reservoir site.

EastLake Parkway would serve as a general buffer between the commercial and activity uses and the residential portions of the project. Acreage within the EastLake Greens/Trails project and west of the proposed EastLake Parkway would be utilized primarily for commercial and public land uses such as a retail center, a school, and a church. Exceptions occur in the southwestern part of the site where medium/high and high residential land uses are proposed. In addition, one school site would be located just east of EastLake Parkway and south of the southern entry way. Higher density residential units would be located immediately adjacent to EastLake Parkway to the east. These would serve to further buffer the lower density, single-family homes located toward the interior of the development from the more intense commercial land uses to the west.

All of the EastLake Greens/Trails project is separated from the EastLake Business Center, located within the previously approved EastLake I project, by Otay Lakes Road. This roadway provides sufficient buffering for the residential uses proposed in the project. Commercial land uses are proposed on the south-east corner of the Telegraph Canyon Road and Hunte Parkway intersection. This area is sufficiently buffered from lower density land use by internal circulation and higher density residential.



RESIDENTIAL

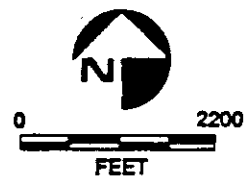
LAND USE	ACRES	DU/AC	MAX UNITS
L Low	349.4	2-3	119
LM Low/Medium	349.3	2-6	833
M Medium	236.8	6-11	1950
MH Medium/High	120.5	11-18	1860
H High	66.7	18-27+	1672
Sub-Total	1025.7		7834

NON-RESIDENTIAL

LAND USE	ACRES
C Retail	58.8
C-O Professional & Administrative	12.6
R Research & Limited Manufacturing	132.4
O Open Space	183.0
PO Public/Quasi-Public	03.3
P Parks & Recreation	299.4
VC Visitor Circulation	211.5
Sub-Total	999.2

Project Total 2099.1 ac 7834 du

 = Approved or Built Portions of Eastlake Development



SOURCE: Cinti & Associates, 1989

General Development Plan

FIGURE 2-4

Table 2-1

ADOPTED AND PROPOSED
EASTLAKE I GENERAL DEVELOPMENT PLAN STATISTICS

LAND USE*	ACRES		MAXIMUM DWELLING UNITS			
	Existing EastLake I**	Eastlake Greens/Trails Expansion Area ¹	Proposed EastLake I	Existing EastLake I	Eastlake Greens/Trails Expansion Area	Proposed EastLake I
Residential						
Low (0-3 du/ac)	112.9	136.6	249.5	291	500	719
Low/Med (3-6 du/ac)	77.5	271.8	349.3	349	1,484	1,833
Medium (6-11 du/ac)	71.0	165.8	236.8	663	1,787	1,950
Med/High (11-18 du/ac)	26.7	93.8	120.5	426	1,234	1,660
High (18-27+ du/ac)	29.0	40.7	69.7	655	1,017	1,672
Res. Subtotal	317.1	708.7	1025.8	2,384	6,022	7,834
Non-Residential						
Retail	22.2	34.6	56.8			
Prof. & Admin.	12.8	0.0	12.8			
Resrch./Ltd. Ind.	132.4	0.0	132.4			
Open Space	160.5	22.5	183.0			
Pub./Quasi-Pub.	10.5	92.8	103.3			
Park & Rec.	30.8	268.6	299.4			
Golf Course	0.0	160.4	160.4			
Major Circ.	87.9	123.6	211.5			
Non-Res. Subtotal	457.1	702.5	1159.6			
Future Urban	0.0	74.2	74.2			
PROJECT TOTALS	774.2	1485.4	2185.4	2,384	6,022	7,834

*Land use categories are those used in City's General Plan Update program, which are the same as those of proposed project.

**Land use categories for existing EastLake I have been converted to the equivalent new category.

¹ Statistics for the Expansion Area also reflect revisions proposed with the Pepper Creek (Salt Creek I) project SPA Amendment in EastLake I.

Source: Cinti & Associates 1989

Table 2-2
PROPOSED EASTLAKE GREENS
GENERAL DEVELOPMENT PLAN CHARACTERISTICS

	Acreage	Maximum Dwelling Units	Density (du/ac)
Residential Uses:			
Low	34.4	0	0-3
Low/Medium	164.3	1,051	3-6
Medium	115.9	832	6-11
Medium/High	67.9	817	11-18
High	40.7	909	18-27+
Total Residential:	432.2	3,609	8.5 avg.
Non-Residential:			
Retail	19.6		
Professional & Administrative	0.0		
Research & Limited Manufacturing	0.0		
Open Space	20.0		
Public/Quasi-Public	76.3		
Parks & Recreation	197.0		
Major Circulation	88.4		
Total Non-Residential:	401.3		
Future Urban:	6.0		
PROJECT TOTALS	830.5	3,609	4.4 avg.*

*Excludes Future Urban acreage in calculation.

Source: Cinti & Associates, 3/1/89.

Table 2-3
PROPOSED EASTLAKE TRAILS
GENERAL DEVELOPMENT PLAN CHARACTERISTICS

	Acreage	Maximum Dwelling Units	Density (du/ac)
Residential Uses			
Low	54.4	163	0-3
Low/Medium	107.5	630	3-6
Medium	21.7	223	6-11
Medium/High	13.8	244	11-18
High	0.0	0	18-27+
Total Residential	197.4	1,260	6.3 avg
Non-Residential			
Retail	15.0		
Professional & Administrative	0.0		
Research & Limited Manufacturing	0.0		
Open Space	2.5		
Public/Quasi-Public	16.5		
Parks & Recreation	67.6		
Major Circulation	30.7		
Total Non-Residential	132.3		
Future Urban	63.1		
PROJECT TOTALS	397.9	1,260	*3.8 avg.

*Excludes Future Urban acreage in calculation.

Source: Cinti & Associates, 3/1/89.

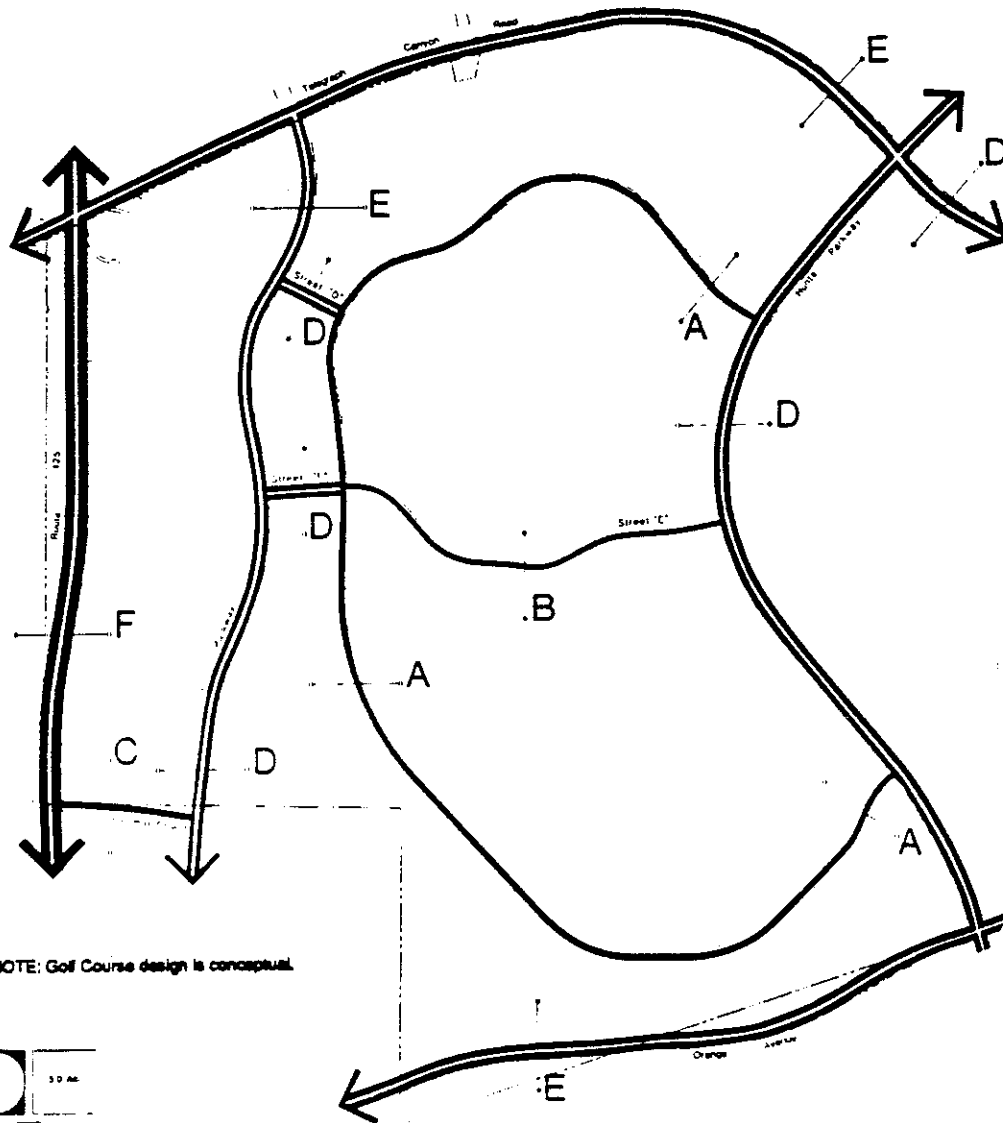
Approximately 74.2 acres of EastLake Greens/Trails is designated as "Future Urban." This designation for the area, south of Orange Avenue and north of Telegraph Canyon Road (see Figure 2-4), is intended to permit the annexation of the property necessary to accommodate grading for roads or development pads. If this property were not included, grading permits from both the City and County would be necessary to construct some on-site improvements. The Future Urban parcel at the southeastern corner of EastLake Greens was created by the realignment of Orange Avenue necessary to provide adequate clearance when passing through the SDG&E easement. The approval of development on adjacent property will determine the ultimate developed use within the Future Urban areas.

Proposed EastLake Greens SPA Plan: The proposed SPA Plan is for the EastLake Greens site only; EastLake Trails does not require a SPA Plan at this time. Implementation of both SPA Plans would occur over a seven to nine year period. The EastLake Greens SPA Plan provides guidelines and the implementation framework for the EastLake Greens project. The Site Utilization Plan depicts permitted land uses, densities and target units (Figure 2-5). This map is designed to complement the existing EastLake General Developed Plan (Figure 2-4) by providing additional details on permitted land uses. The EastLake Greens SPA includes guidelines and standards for the project's circulation network, parks, recreation and open space, public facilities, and community design as well as a Public Facilities and Financing Plan and a development agreement. By including the Public Facilities and Financing Plan and development agreement as integral parts of the project, the City is assured that the development will be implemented efficiently without burdening the general taxpayer. The Plan also assures that buildout will be commensurate with the availability of necessary facilities and infrastructure.

The project's circulation plan is shown as Figure 2-6. Regional access to the site would eventually be provided via Interstate 805 to State Route (SR)-125 or Telegraph Canyon Road (SR-125 has yet to be constructed). Portions of the residential neighborhood of EastLake Greens may have controlled access through gated entrances; the final decision as to which portion of the community will be private will be made as part of the tentative map process. If these private internal streets are private, they would be constructed to meet public street standards. Circulation features of the project would be phased in accordance with the Public Facilities and Financing Plan and would include road capacity and access improvements, public transit routes and stops, and internal pedestrian and bicycle systems (see Section 4.2, Transportation and Circulation).

The EastLake Greens SPA Plan also includes a systems of parks, open space, and trails (Figures 2-7 and 2-8). The plan proposes a 15.1-acre community park located adjacent to the proposed high school. This park is intended to complement recreational facilities at the high school and to accommodate "organized group field sports, picnicking, and other active recreational activities" (Cinti & Associates 1986:IV-4). Specific environmental analysis of the proposed high school will be conducted in a subsequent document. Four neighborhood parks would be located throughout the development, with three located along the internal loop road and one adjacent to the proposed elementary school, to provide additional recreational opportunities within the EastLake Greens project area. These parks would function independent of the golf course and country club facilities.

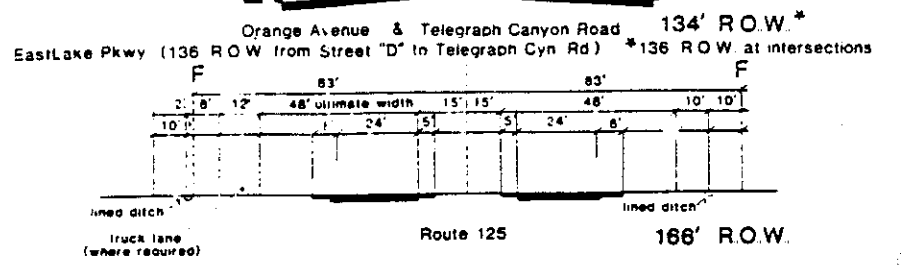
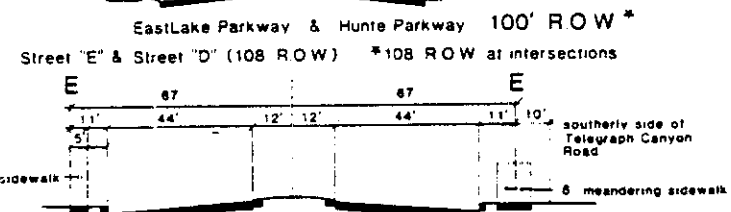
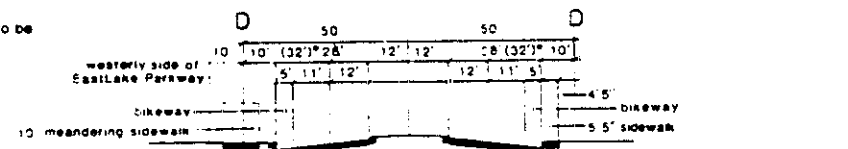
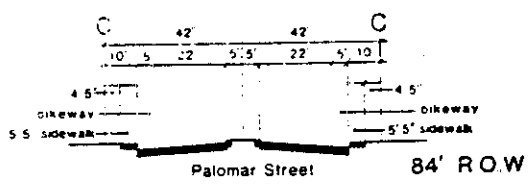
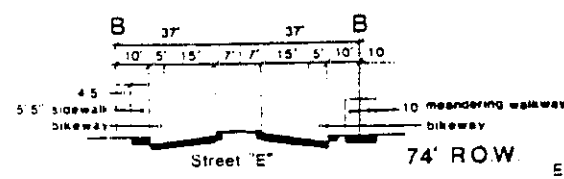
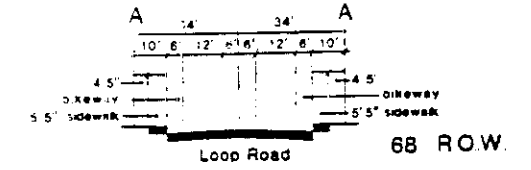
The golf course would function as the principal amenity for the EastLake Greens development. The 160.4 acre course would contain an 18-hole course, a driving range, and a clubhouse (see Figure 2-5 for the conceptual location of golf course holes). The golf course and club would be privately owned and maintained; reclaimed water, provided by the Otay Water District, may be used for irrigation purposes, subject to regulations of the RWQCB and the State Health Department.



NOTE: Golf Course design is conceptual.



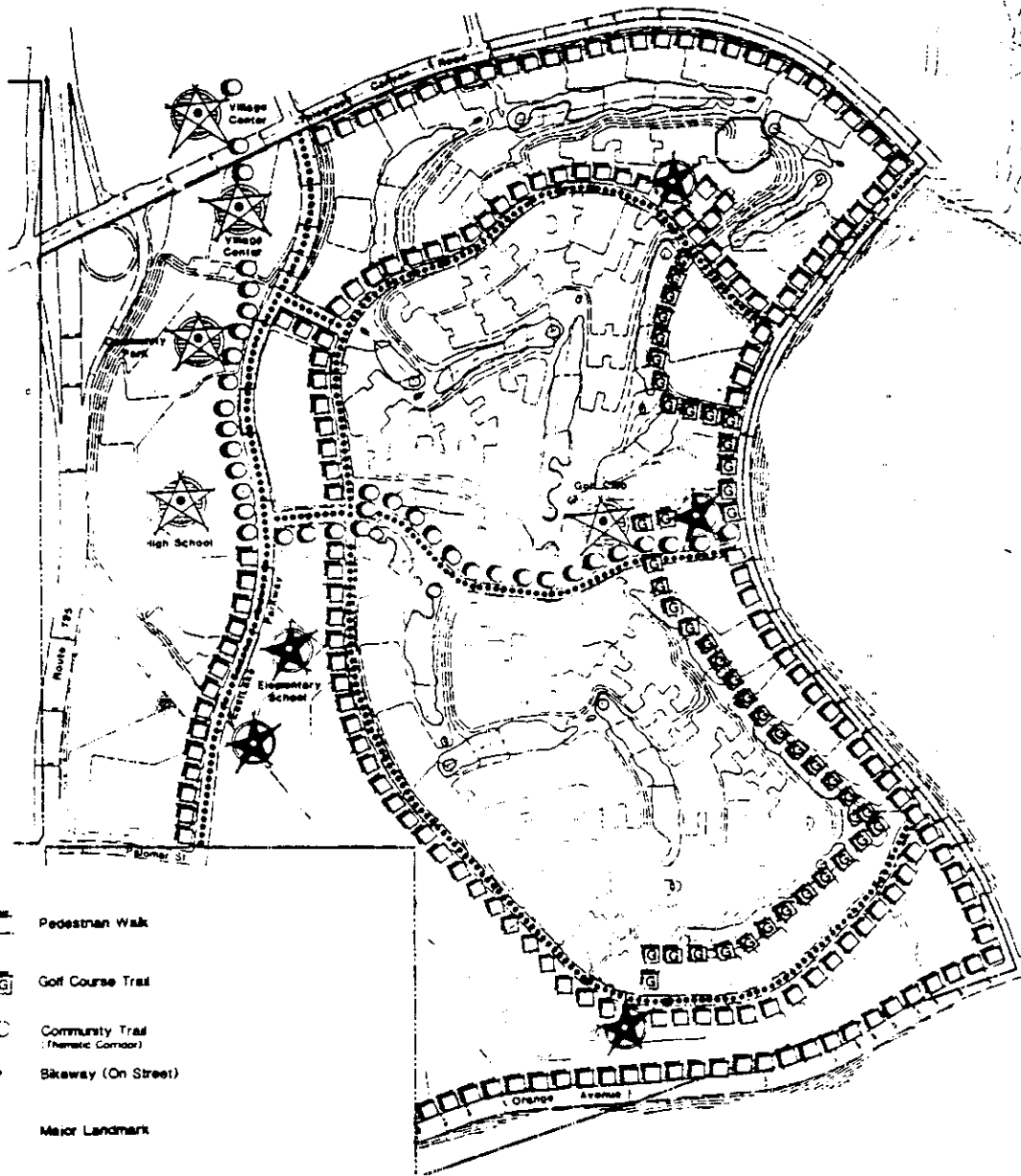
Note: Refer to Trails Plan for location of walkways. Final street standards to be established by Tract Maps.









SOURCE: Cinti & Associates, 1989

Circulation

FIGURE 2-6



-  Pedestrian Walk
-  Golf Course Trail
-  Community Trail
(Thematic Corridor)
-  Bikeway (On Street)
-  Major Landmark
-  Minor Landmark

Note: Final trail standards to be established by T. ec: Mass

NOTE: Golf Course design is conceptual.

SOURCE: Cinti & Associates, 1989



Trail Plan

**FIGURE
2-8**



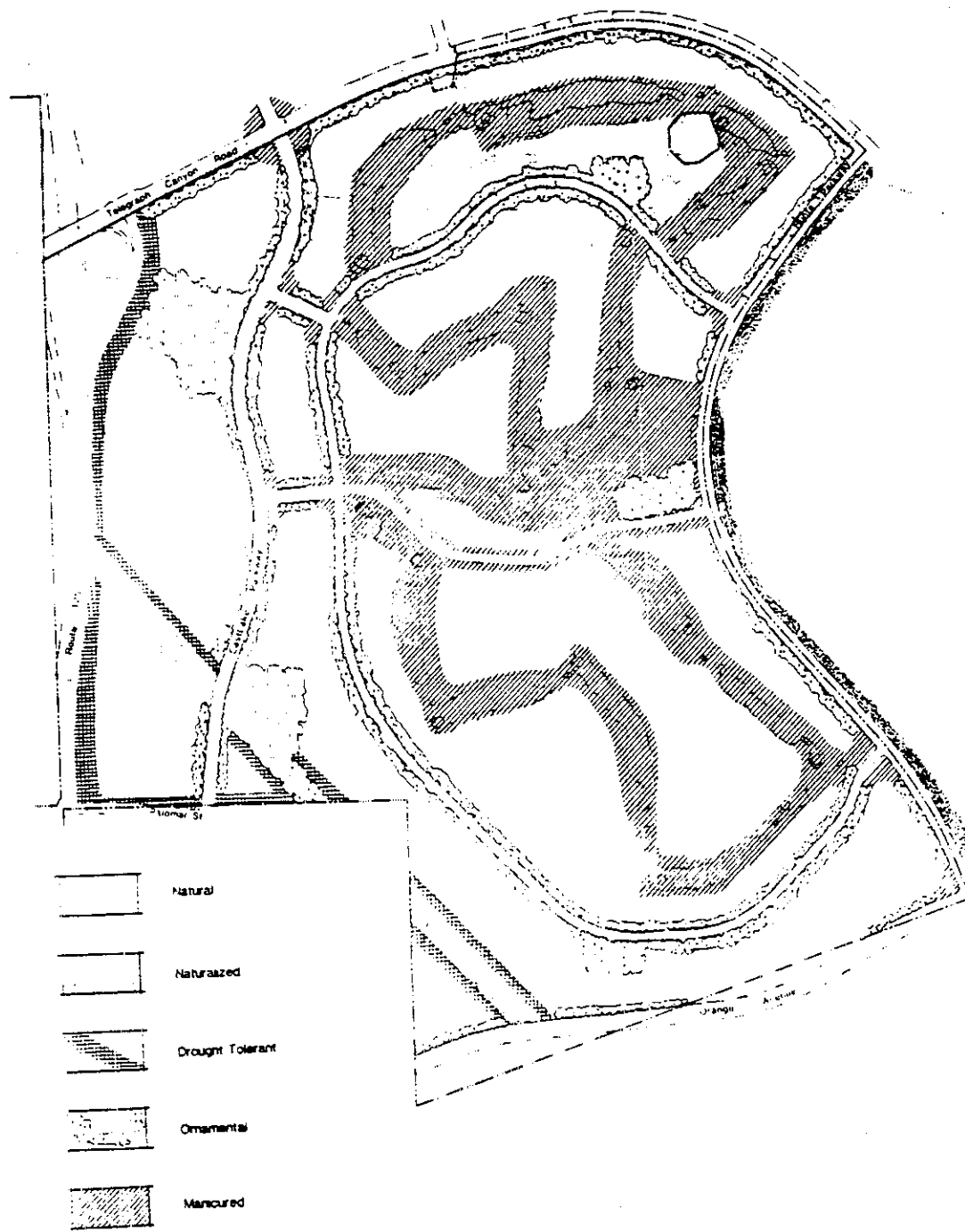
Another 26.6 acres of open space would be preserved within the EastLake Greens project through "the dedication of open space easements and/or lots to the City or other appropriate agency, or to a Master Community Association" (Cinti & Associates 1986:IV-1). These open space areas include buffers along SR-125, Telegraph Canyon Road, and Orange Avenue, and a water line easement located in the southwest portion of the site. Community trails and public walkways within these open space areas are proposed to connect major focal points within the community and to provide connections to EastLake I development and ultimately with development within EastLake Trails and EastLake II (see Figure 2-8). EastLake II represents future phases of the EastLake development, which will undergo a separate environmental analysis in the future. It should be noted that development of EastLake II was considered in the cumulative analysis of this EIR.

Planned public facilities within the EastLake Greens SPA include roads, a potable water system, potentially reclaimed water supply lines (for irrigation purposes), sewage facilities, stormwater drainage, and schools. The use of reclaimed water is proposed, and a portion of the reclaimed water would be supplied in public lines, while the balance would be supplied in private lines. Similar infrastructure improvements would accompany the development of the EastLake Trails project. The proposed infrastructure is discussed in detail in Section 4.3 of this report. The Public Facilities and Financing Plan of the SPA Plan includes both the phasing and the financing of the necessary infrastructure. A SPA Plan and financing plan will be developed in the future for the EastLake Trails project.

The community design section of the proposed SPA Plan contains standards for grading, landscape themes, project signage and fencing, building designs, orientation and setbacks, parking, lighting, and other design aspects of the development. Grading would occur on all of the site, including the SDG&E easement, which is proposed for development as a public neighborhood park. Approximately 11 percent of the site would not be graded until the Future Urban portions of the site are developed. The grading within the Future Urban area would be conducted to accommodate the construction of roads and development pads in the EastLake Trails portion of the development. Slope banks with heights in excess of 5 feet would be constructed at a slope gradient of 2 to 1 (horizontal to vertical) or a lesser gradient unless otherwise approved by the City Engineer. Erosion control measures would include berms at the top of all slopes, paved interception ditches and terrace drains, and erosion control vegetation (see EastLake Greens SPA, Cinti & Associates 1988).

Landscaped areas of the EastLake Greens property are shown in Figure 2-9. These areas are described in terms of their intensity of maintenance and water requirements as follows (Cinti & Associates 1988:IV-6):

- Natural Areas - These are existing vegetated areas undisturbed by construction operations. Natural rainfall only is required for irrigation. Periodic clean-up and grubbing of seasonal growth may be required.
- Naturalized Areas - These are newly planted areas provided with temporary irrigation systems. Once plants become established, they will be capable of surviving with no artificial irrigation.
- Drought Tolerant Areas - These are newly planted areas provided with permanent irrigation systems. Water demand will be low, requiring substantially less irrigation than ornamental areas.



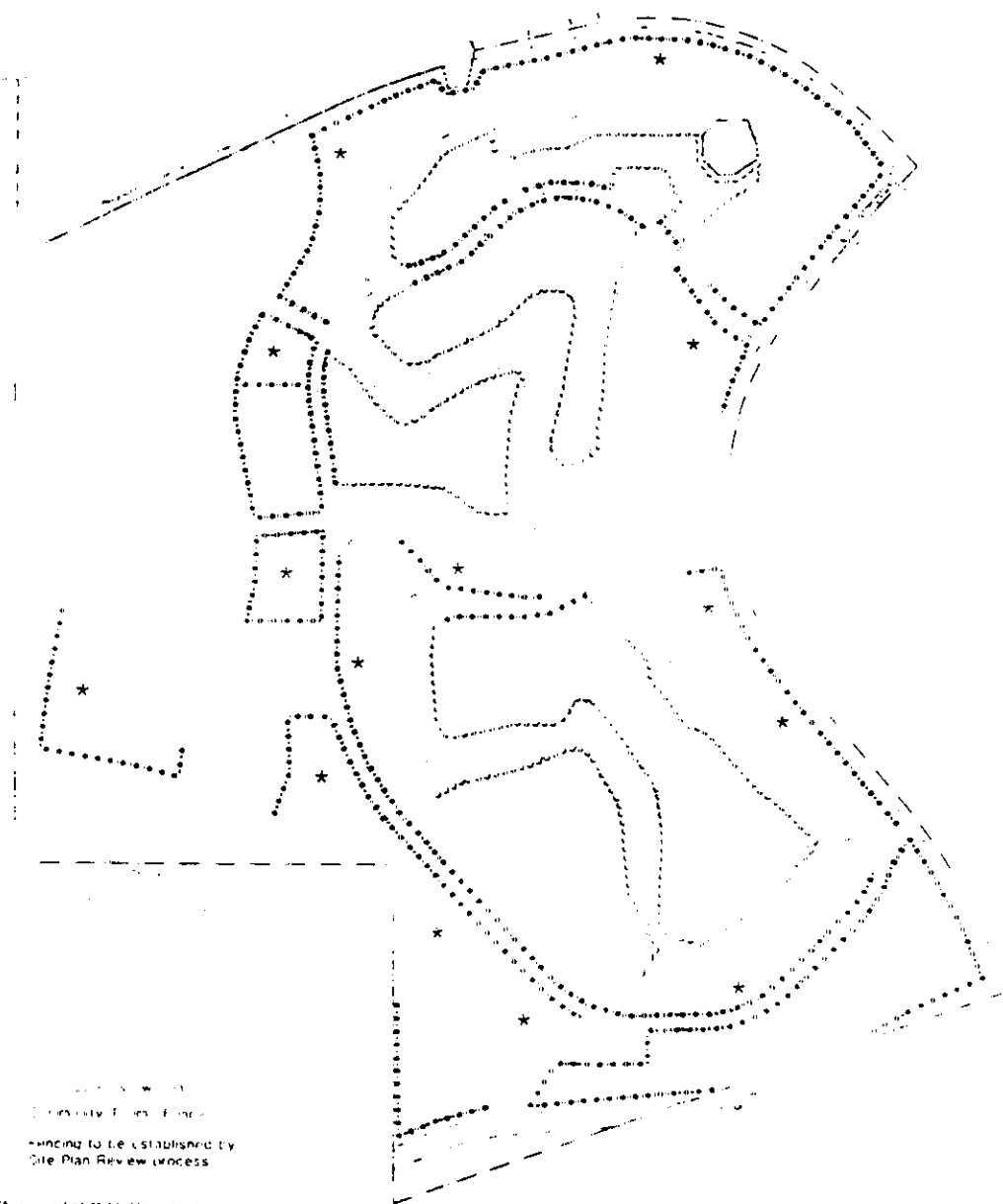
NOTE: Golf Course design is conceptual.



SOURCE: Cinti & Associates, 1989

Landscape Intensity Plan

FIGURE
2-9



----- Community Fencing
 Community Fencing
 * Fencing to be established by Site Plan Review process

The fencing shown on this plan is for informational purposes only. The actual fencing to be established will be established by the Site Plan Review process.



SOURCE: Cinti & Associates, 1989

Fencing Plan

**FIGURE
2-10**

- Ornamental Areas - These are areas and corridors with a high degree of visual prominence. Plant materials will require regular maintenance and watering.
- Manicured Areas - These are ornamental areas that require "special" attention because of their visual significance.

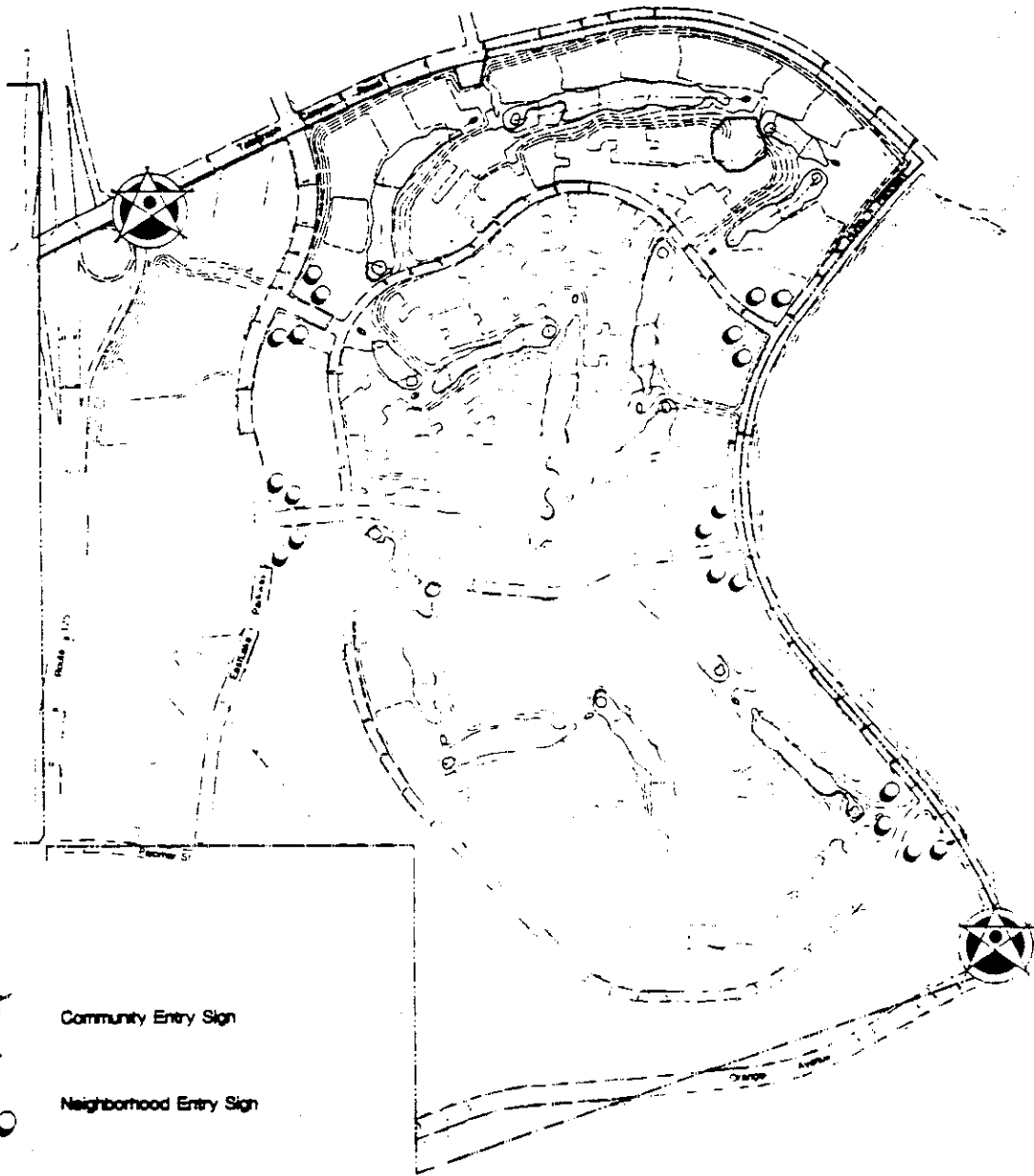
Details of the proposed landscaping plans, including plant materials, project signage, and fencing, are discussed in Section 4.4 of this EIR. A community theme fence is proposed around most of the EastLake Greens residential neighborhood with community and neighborhood entry signs proposed at the primary site access points (see Figures 2-10 and 2-11).

Residential Development: The EastLake Greens SPA allows for the ultimate development of the site with a variety of multifamily and single-family attached units as well as single-family detached units. The SPA Plan requires a minimum of three single-family detached housing plans per project with at least one plan that is one story and one that is two stories. Each housing plan must have at least three different facade treatments; roof styles, materials, heights, and setbacks are to be varied as well. The EastLake Design Manual serves as the controlling document for all architectural and material treatments within the development. The architectural design of the multifamily and attached units would also vary (Cinti & Associates 1988:V1-19). Off-street parking is required in accordance with the Chula Vista Municipal Code and the EastLake I.P.C. Zoning Regulations.

Commercial Development: The SPA Plan gives only general guidelines concerning the proposed Village Center. A precise plan for the center must be prepared prior to any building construction.

Phasing of Development: The EastLake Greens and Trails project, would be built over a 7 to 9-year period. The estimated buildout schedule is shown in Table 2-4.

EastLake Development Company is considering the construction of a water reclamation facility, with associated pipelines, in the EastLake Trails area. This same water reclamation facility was considered during the initial environmental review of the entire 3,200-acres of EastLake development and may be placed within this phase of the buildout. Off-site reclaimed water distribution lines have been previously installed to deliver water from the existing Otay Water District plant to EastLake.



Community Entry Sign

Neighborhood Entry Sign

Note: Monument signs are proposed to be located within an open space lot established at the Tract Map level.

NOTE: Golf Course design is conceptual.



SOURCE: Cinti & Associates, 1989

Signage Plan

FIGURE
2-11

Table 2-4

**EASTLAKE GREENS & TRAILS
RESIDENTIAL BUILDING PROJECTIONS
DWELLING UNITS PER YEAR**

Product Type	Average Density DUs/Ac.	Projected Occupancies										Total		
		1990	1991	1992	1993	1994	1995	1996	1997	1998				
Custom 70 x 100	3.70	25	20	25	25	15	0	0	0	0	0	0	0	110
SFD 60 x 100	5.08	50	48	0	0	0	0	0	0	0	0	0	0	98
SFD 50 x 100	4.83	50	57	50	40	0	0	0	0	0	0	0	0	197
SFD 46 x 95	5.10	60	33	60	67	0	0	0	0	0	0	0	0	220
SFD 42 x 90	5.98	60	60	35	0	0	0	0	0	0	0	0	0	155
SFD 38 x 90	6.27	80	69	0	0	80	82	0	0	0	0	0	0	311
SFD 50 x 60	7.04	83	0	95	0	0	0	0	0	0	0	0	0	178
SFA	8.10	90	90	90	60	90	80	0	0	0	0	0	0	500
Townhouse	12.01	100	86	100	73	0	0	0	0	0	0	0	0	359
Condominium	14.54	100	30	100	100	100	100	42	0	0	0	0	0	572
Condominium	21.99	114	0	120	65	120	100	0	0	0	0	0	0	519
Condominium	32.23	50	50	50	20	50	50	120	0	0	0	0	0	390
Trails - Detached	5.49	0	0	0	267	208	228	90	0	0	0	0	0	793
Trails - Attached	16.27	0	0	0	113	131	111	112	0	0	0	0	0	467
TOTAL		862	543	725	830	794	751	364	0	0	0	0	0	4,869
Cumulative Total		862	1,405	2,130	2,960	3,754	4,505	4,869	4,869	4,869	4,869	4,869	4,869	4,869

SECTION 3 ENVIRONMENTAL SETTING

The Eastlake Greens/Trails project site encompasses 1228.4 acres of gently rolling hills oriented in a northeast-southwest direction. Site elevations range from 480 feet above mean sea level (MSL) in a canyon located in the southeastern corner of the site to 750 feet MSL on a hill in the northeastern portion of the site. Other onsite hills peak at 723 feet, 707 feet, and 652 feet MSL (see Figure 2-2). A number of canyons extend in all directions from the central portion of the site; surface drainage flows northward to Telegraph Canyon along the northern boundary of the site, eastward and southward to Salt Creek, and westward to Poggi Canyon. The site is currently being dryfarmed for barley production and except for a water reservoir and an utility line, is vacant.

The site lies partially within the incorporated city limits of Chula Vista and partially within unincorporated County of San Diego lands. The site is designated as Future Urban in the EastLake Policy Plan of the City of Chula Vista and as Intensive Agriculture in the Otay Subregional Planning Area Land Use Element of the County of San Diego. The Eastlake Policy Plan consists of the SPA Plan for the entire Eastlake development area, which contains the land use designations and policies that were adopted by the City of Chula Vista as a General Plan policies for the area. Most of the land surrounding the site is also dryfarmed for barley production. Land to the north of the property across Telegraph Canyon Road is presently being developed as the EastLake I project. The Upper and Lower Otay Reservoirs are located east of the project site.

Access is provided to the site from Interstate 805 via Telegraph Canyon Road to Otay Lakes Road. The project area is also served by Bonita Road and its extension along San Miguel Road, Proctor Valley Road, and East H Street.

Previous environmental documents have reviewed the project area of EastLake Greens/Trails. A Master EIR for all the EastLake development was completed February 1982. In addition, 392.1 acres of EastLake Greens were reviewed in an EIR prepared for EastLake I in January 1985. The EastLake I EIR, together with the Master EIR, provide an assessment of the probable cumulative effects of the project and mitigation measures to reduce or eliminate adverse impacts.

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SECTION 4 IMPACT ANALYSIS

On November 19, 1987, the City of Chula Vista adopted a policy of thresholds for assessing environmental impacts of new development on police, fire, traffic, parks/recreation, drainage, libraries, air quality, economics, schools, sewer, and water (Threshold/Standards and Growth Management Oversight Committee, September 1987). The thresholds are aimed at achieving the environmental objectives and goals established by the City of Chula Vista. These thresholds are to be met through implementation measures encouraged or enforced by the City of Chula Vista for each proposed project. Threshold standards for the corresponding issues are discussed within each impact analysis below.

4.1 LAND USE

4.1.1 Existing Conditions

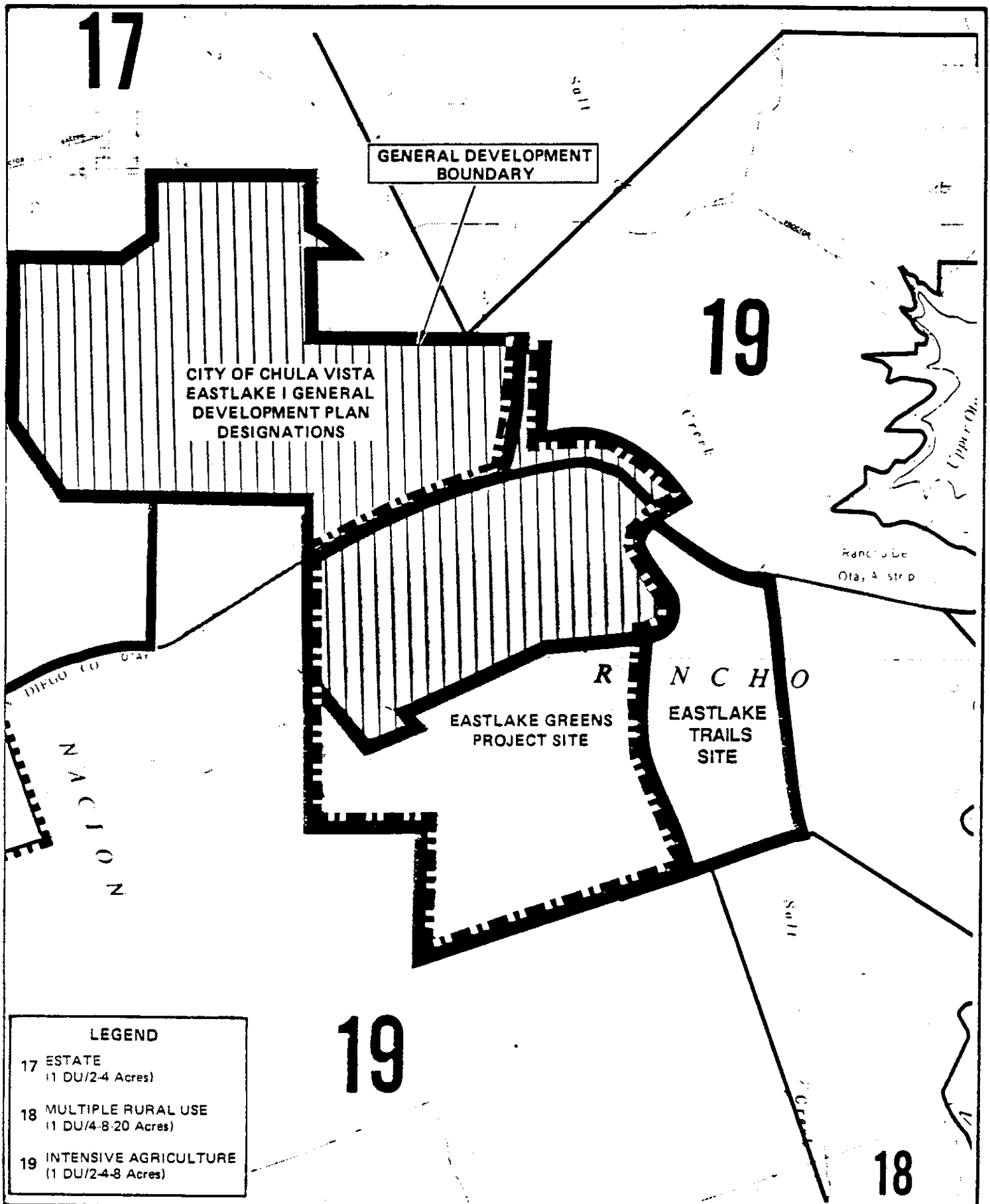
The EastLake Greens/Trails project involves 1228.4 acres of land located east of the City of Chula Vista, approximately 0.50 miles west of the Lower Otay Reservoir. An SDG&E transmission line crosses the southwest corner of the site, and a San Diego County Water Authority easement crosses the property in approximately the same location (Figure 2-2). A 3.0 million gallon (mg) water tank operated by the Otay Water District (OWD) is located in the northeastern portion of the site, and Otay Lakes Road traverses the site from east to west. The majority of the site is dry-farmed for barley production.

Land to the east, south, and west of the EastLake Greens/Trails site is largely undeveloped, and is used primarily to produce barley. Land to the north across Telegraph Canyon and Otay Lakes roads, is partially developed as research and limited industrial, as part of the approved EastLake I project. Other future land uses planned for the area include the extension of SR-125 along the western boundary of the project site and the extension of Orange Avenue along the southern border.

The proposed EastLake Greens/Trails site is partially within the incorporated limits of the City of Chula Vista; approximately 836.3 acres lie outside the City limits in the County of San Diego but within the City's Sphere of Influence. This acreage is designated as residential by the City of Chula Vista and the EastLake Policy Plan. This acreage is designated as Intensive Agriculture in the County of San Diego's Otay Subregional Planning Area Land Use Element and as an Estate Development Area in the County Regional Land Use Element of the County General Plan. These designations are intended to allow agricultural or a combination of agricultural and low-density residential uses (parcel sizes of 2 to 20 acres) on the property.

The 392.1 acres of the EastLake Greens site that lie within the City of Chula Vista's city limits were approved for development under the EastLake I Planned Community District Regulations and General Development Plan (Figure 2-4). This portion of EastLake Greens was included in the EastLake I SPA Plan; final approval for development was deferred until a supplemental SPA Plan was prepared. In the original EastLake I SPA Plan, the site was designated for residential development, a 14.9-acre park, and 27.0 acres of open space. The residential portion encompassed 320.7 acres of land with a maximum of 1,299 dwelling units (4.1 du/ac average density).

To the east of the EastLake Greens property is EastLake Trails, which is designated Future Urban in the EastLake Policy Plan. This land is designated Intensive Agriculture and Multiple Rural Use in the County's Otay Subregional Planning Area Land Use Element (Figure 4-1). The project proposes a prezone of the site to planned community with the



Surrounding County Land Use Designations

**FIGURE
4-1**

proposed General Development Plan. Development of this land would be subject to annexation and the preparation of a Sectional Planning Area (SPA) Plan. It is intended that the annexation of the EastLake Trails property would occur as a discretionary measure of this documents.

Land immediately south and west of the site is designated AG, Agriculture and Reserve, on the City of Chula Vista General Plan Map and Intensive Agriculture on the County Otay Subregional Plan. To the north of the site, the portion of the land located in EastLake II is designated Future Urban, and the portion in EastLake I is designated as Village Center and Employment Park in the EastLake I General Development Plan. The portion of the land outside of the EastLake planning area to the east is designated Agriculture and Reserve in the City of Chula Vista General Plan and Intensive Agriculture on the County Otay Subregional Plan.

Land Use Policies

Policies of the County of San Diego, the City of Chula Vista (the EastLake Policy Plan), and the P.C. zoning regulations are discussed in the following sections.

County of San Diego: The County of San Diego Regional Land Use Element and Map (August 1984) contains several goals to manage urban growth so that balanced communities are planned appropriately with facilities and urban levels of service. The Land Use Element also states that future urban growth should be located contiguous to existing urban areas while the rural character of non-urban lands should be retained (County of San Diego 1984:II-2).

Policies more specific to the location of the project are found in the Otay Subregional Plan (County of San Diego 1984). Of these policies, the ones most applicable to the project are Policies A-7 and A-8. These are listed below:

- The County will cooperate in planning and regulating growth of unincorporated territory within each City's sphere of influence. Future County decisions on proposed projects in the sphere areas will take each City's planning objectives into consideration (Policy A-7).
- The County will support well coordinated development, in accordance with an adopted facilities financing plan (Policy A-8).

Other policies, including the appropriate management of Resource Conservation Areas, the use of agriculture and public recreation as interim land uses (Policies A-5 and A-6), the equitable financing of public services and facility planning and programming (Policy B-1), and the designing of local roads to protect their natural scenic beauty (Policy C-3), are also contained in the Otay Subregional Plan. None of the Otay Subregional Resource Conservation Areas is on or adjacent to the project site.

City of Chula Vista: The most specific City of Chula Vista goals and land use policies for the project site are found in the EastLake Policy Plan. This set of policies was approved by the City of Chula Vista September 7, 1982, applies to the entire EastLake Planned Community. Policies of the EastLake Policy Plan that are applicable to the development and annexation of the unincorporated 836.3 acres of the project are as follows:

- Annexed areas of EastLake II shall be developed consistent with the Land Use Element of the General Plan for the City of Chula Vista which was revised in 1983. (Although the 1989 General Plan Update is now applicable).

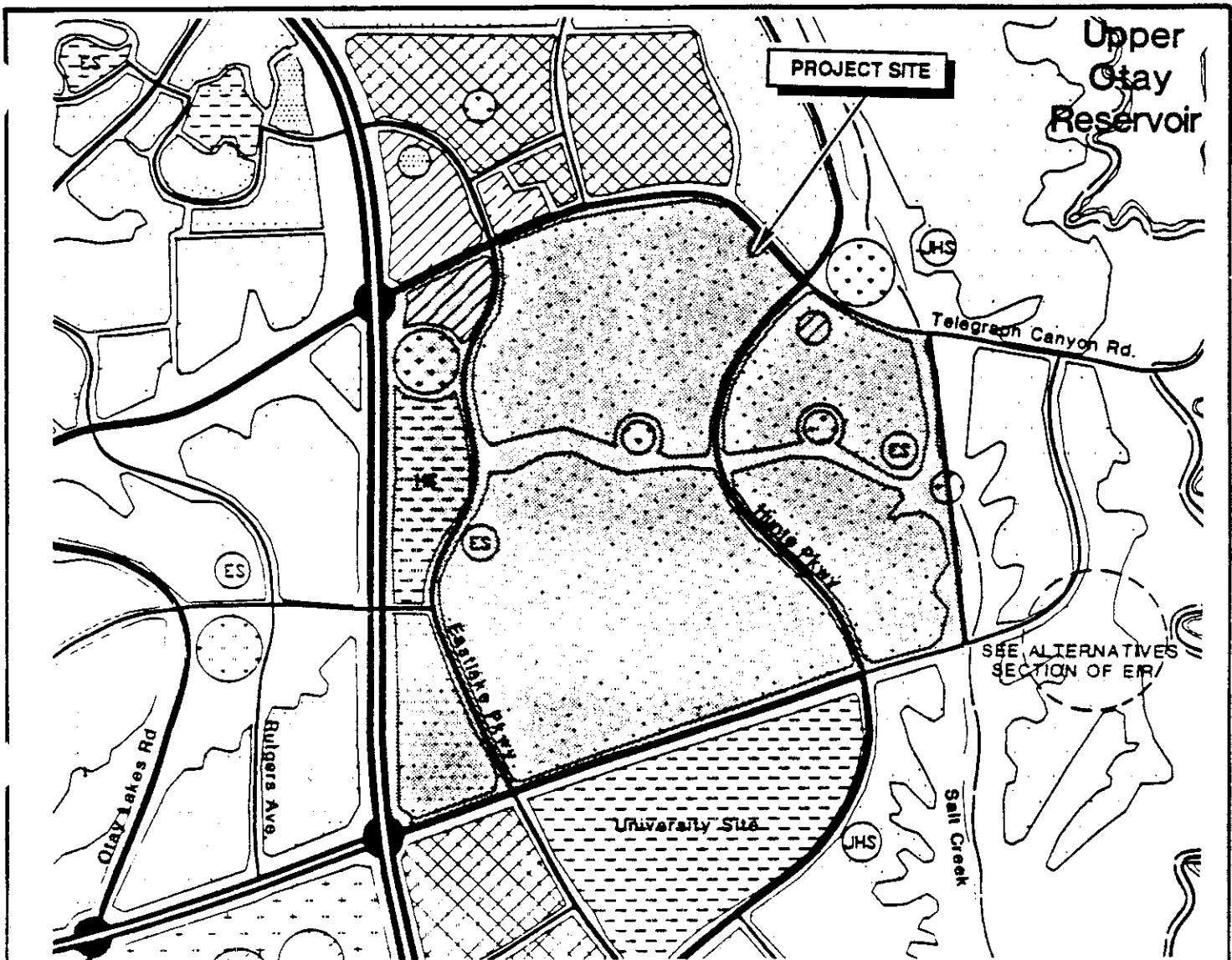
- Subject to the Land Use Element, land form characteristics, and other planning factors, an overall gross density of 3.7 dwellings per gross acre is proposed for the 3073-acre EastLake Community Planning Area.
- It is specifically not intended that EastLake II be implemented through the use of standard zoning classifications such as R-1, R-2, etc. It is intended that EastLake II be implemented through the use of comprehensive planning tools such as the Specific Plan and/or Planned Community Zoning.
- The residential dwellings for EastLake II shall consist of a full range and distribution of densities and housing types consistent with the general approach provided for in EastLake I.
- In addition to the residential land uses, the following additional land uses are appropriate for EastLake II:
 - a. Employment/Office Park: Eastward expansion of the Employment/Office Park of approximately 75 acres.
 - b. Commercial: A second commercial site of approximately 15 acres.
 - c. A complex for places of worship.
 - d. A community park of approximately 30 acres.
 - e. A full complement of schools necessary for the residents of EastLake.
 - f. A system of neighborhood parks, open space linkages, and trail systems.
 - g. Other community facilities and support uses.

With regard to the portions of the current EastLake Greens project that were originally a part of EastLake I and are within the Chula Vista City limits, the EastLake Policy Plan states the following:

The land uses appropriate for EastLake I are included on the General Development Plan, a component of the Planned Community District Regulations.

The City of Chula Vista has created a land use plan for all property within its eastern sphere of influence (the Eastern Territories) and has incorporated it into the current comprehensive General Plan Update program, scheduled to be completed later this year. The Land Use Map from the General Plan Update (adopted April 1989) for the project area is shown in Figure 4-2. The primary land use for both the EastLake Greens and Trails properties is low-medium density residential. In addition, medium density residential, retail uses, a high school site, two elementary school sites, a future community park, and three future neighborhood parks are located on the sites. Both projects have been designed consistent with these designations although an additional neighborhood park is proposed adjacent to the EastLake Greens elementary school.

Policies within the General Plan Update that apply to the EastLake Greens and Trails projects are as follows:



Legend

LAND USE

RESIDENTIAL

	Low	0-3
	Low-Medium	3-6
	Medium	6-11
	Medium-High	11-18
	High	18-27

INDUSTRIAL

	Research & Limited Manufacturing
	General

PUBLIC & OPEN SPACE

	Public & Quasi-Public
	Parks & Recreation
	Water
	Open Space

SPECIAL PLAN AREA

	Eastern Urban Center
--	----------------------

COMMERCIAL

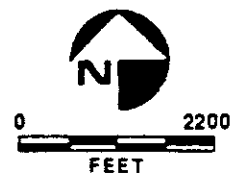
	Retail
	Throughfare
	Visitor
	Professional & Administrative

CIRCULATION SYSTEM

	Freeway & Interchange
	Expressway & Grade Separation
	Prime Arterial & Major Street (8 Lanes)
	Major Street (4 Lanes)
	Collector Street (2 & 4 Lanes)
	Selected Local Streets (2 Lanes)

PUBLIC FACILITIES

HS	High School		Future Community Park
JHS	Junior High School		Future Neighborhood Park (All areas not included)
ES	Elementary School		Greenbelt Trail System
CC	Civic Center		
L	Library		
FS	Fire Station		
TS	Transit Station/Stop		
-	Future		



SOURCE: City of Chula Vista, Draft General Plan, 1989

City of Chula Vista General Plan Designations for the Project Site

FIGURE 4-2

- Provide for community and neighborhood commercial centers in developing areas convenient to new neighborhoods and maintain, renovate and redevelop existing center.
- Encourage the development of a diversity of housing types and prices.
- Assure that new development meets or exceeds a standard of high quality planning and design.
- Provide for the development of multi-family housing in appropriate areas convenient to public services, facilities and circulation.
- Encourage planned developments, with a coordinated mix of urban uses, open spaces, and amenities.
- For new developments in Eastern Territories, the predominant character should be low medium density, single-family housing. Where appropriate in terms of physical setting encourage development of quality, large-lot housing.
- Promote water conservation through increased efficiency in essential uses and use of low water demand landscaping.
- Encourage, where safe and feasible, wastewater reclamation and use of reclaimed water for irrigation and other uses.
- Establish a growth management system to assure that private development is coordinated with the provision of adequate public facilities and services.

The following objectives are stated in the Eastern Territories Area Plan which is the community plan component of the General Plan which focuses on the project site and vicinity.

- Direct new urban development in Eastern Territories to broad mesa tops which are generally located away from environmentally sensitive areas such as flood plains, canyons, and steeply sloped areas.
- Require through environmental reviews of all proposed conversions of vacant or agricultural land to urban uses.
- Create, for the planning area as a whole, a balanced community of residential, commercial, and industrial uses. To the extent that employment uses may be more difficult to establish, provide for additional designations of commercial and industrial land and encourage retention of vacant land for commercial and industrial uses.
- Assure that all new developments are provided with acceptable levels of public services. Each development should include local public facilities required to serve the development and also contribute toward construction of city-wide facilities needed by the development.
- Encourage orderly and compact patterns of development, which will make maximum use of existing public facilities and avoid "leap frog" development. In particular, encourage development phasing which will substantially build out

drainage and hydrologic basins with existing public service facilities before developing new basins.

Zoning: The portion of the proposed EastLake Greens site that is currently within the City limits is included within the Planned Community (P.C.) District. Within this district, the City had established specific land use districts to establish permitted uses and development standards. There are, however, no land use districts established for EastLake Greens except for a 14.9-acre park in the OS-4 (Open Space, Parcel No. 4) district. (As mentioned previously, the approved General Development Plan for EastLake I includes a Future Residential classification as well as some open space acreage.)

The remaining 836.3 acres of the project site lie outside the City's jurisdictional boundaries and therefore contain no zoning districts. This acreage is covered by County zoning classification S-87, Limited Control, which provides "limited controls on the use of property in portions of the unincorporated area of the County pending specific studies to enable rezoning of said area in conformance with the adopted General Plan" (County of San Diego 1985). Uses presently allowed in the zone are similar to the General Agricultural (A-72) Use Regulations intended to create and preserve areas for the raising of crops and animals, including Family Residential, Essential and Fire Protection Services, various agricultural use types, and custom manufacturing.

The P.C. 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 Planning Community designation is further subject to a Sectional Planning Area (SPA) Plan which guides specific development concepts in compliance with the General Development Plan (WESTEC 1985).

No threshold/standards for land use are included in the Threshold/Standard and Growth Management Oversight Committee document.

4.1.2 Impacts

EastLake Greens

The proposed project would change the utilization of the site (830.5 acres) from agricultural production and open space to an urban, mixed-used development. This alteration has been planned for by the City of Chula Vista and the impacts were analyzed in prior environmental documentation for the Master and EastLake I developments (EastLake Final Environmental Impact Report 1982 and EastLake I Sectional Planning Area (SPA) Plan Final Environmental Impact Report 1985, both on file at the City of Chula Vista Department of Planning). In addition, the EIR prepared by P&D (1989) for the recent General Plan Update also addressed this conversion of agricultural land associated with the new land use designations over agricultural land in the Eastern Territories. Although the actual loss of barley production in the area is not considered to be significant, the loss of potential coastal-dependent vegetable production was considered significant. The removal of agricultural lands is inevitable with the amount of urbanization currently occurring in the Eastern Territories. Because the City considers agriculture an interim use on the site, and the fact that the site is not situated on prime agricultural land, the loss of agricultural acreage due to the proposed development of the site is considered insignificant. The project would, however, contribute to the cumulative loss of agricultural lands in the Eastern Territories, although not significantly. Proposed land uses include 412.4 acres of residential development with densities ranging from low/medium (3.0 - 6.0 du/ac) to high (18.0 -

27.0+ du/ac); retail (a 19.6-acre Village Center); public/quasi-public (churches, schools and parks); a golf course; and other open space. Approximately 6.0 acres south of Orange Avenue are designated as Future Urban and would be developed at a later date to accommodate roadway and pad grading.

The ultimate development of the EastLake Greens site would result in the impacts typically associated with urban land uses: increased traffic flows, a decrease in air quality, and additional demands on public services and utilities. These items are discussed, and the impacts quantified, in other sections of this EIR (see Sections 4.2, 4.3, and 4.7; Transportation and Circulation, Services/Utilities, and Air Quality respectively).

The proposed land uses for EastLake Greens are generally compatible with surrounding land uses, both planned and existing. Light industrial and commercial uses are planned in proximity to residential uses in EastLake Greens (Figure 2-4), the residences would be separated from the business park by Otay Lakes Road, a major arterial with a 134-foot right-of-way and by a 50-foot buffer. The buffer is proposed to be landscaped (see Mitigation Measures) to ensure privacy and to minimize light and glare impacts from the business park. Onsite residential neighborhoods along the eastern and southern boundaries of the project affected will be similarly buffered by Orange Avenue and Hunte Parkway.

The project has been designed to minimize land use incompatibilities. Low/medium density residential neighborhoods are located around a golf course that meanders through the central and eastern portions of the site. Commercial and public land uses are located in the western portion of the development between EastLake Parkway and Route 125. High-density residences are located near these major transportation corridors as well. Visual impacts could occur as a result of the proximity of residents to the proposed water reservoir. While the reservoir would be bordered on several sides by the golf course, dwelling units, are planned adjacent to the reservoir on the southwest (see Section 4.4 for recommended mitigation and further discussion of this potential impact). No other interface impacts are anticipated as a result of the internal design of this project.

Land Use Policy Impacts: In addition to the implementation of a new General Development Plan and SPA Plan and the physical development of the EastLake Greens community, the proposed EastLake Greens project involves a number of policy changes or discretionary actions that affect land use policy. These include the annexation and "planned community" rezoning of the 438.4 acres of EastLake Greens and Trails, amendments to the City of Chula Vista General Plan, EastLake Greens and the EastLake I General Development Plan, revisions to the EastLake Policy Plan and approval of the Public Facilities Financing Plan, the Development Agreement and Tentative Map. Impacts resulting from these actions are discussed in the following paragraphs.

The proposed annexation would remove 438.4 acres from the County's jurisdiction and would place the acreage within City of Chula Vista jurisdiction. Although this represents a loss of agricultural resources in the area, this action has been planned for by the City of Chula Vista in its previously approved EastLake Policy Plan and is consistent with County policies A-7 and A-8 of the Otay Subregional Plan. The proposed P.C. prezone will further implement the County goals of coordinated, regulated growth. No land use impacts are expected to occur as a result of the proposed annexation as long as the circulation and public service improvements are phased appropriately (see Sections 4.2 and 4.3).

The significance of the proposed amendment to the existing City of Chula Vista General Plan map is that it will standardize the land use categories used on the project site with those used throughout the City of Chula Vista, i.e., it would change the way those uses are classified on the Chula Vista General Plan map. Reclassifying the land uses planned for

EastLake with the same categories and language will improve the consistency of land use classifications, making land use planning for the City of Chula Vista more efficient.

The proposed General Plan Circulation Element revisions include the realignment of Orange Avenue and Otay Lakes Road and the addition of EastLake Parkway and Hunte Parkway, as major roads, to the planned circulation system of the area. These circulation improvements would require some revision of the EastLake Policy Plan. Additional revisions to the plan would expand the P.C. district boundaries to include the entire EastLake Greens and EastLake Trails areas. The development of all of EastLake is consistent with the City of Chula Vista's Growth Management policy as contained within Chula Vista's General Plan Update. The proposed development densities of the EastLake Greens and Trails projects are consistent with those densities which are permitted for high quality development under the General Plan Update. The increased density is allowed because of the planned amenities and project characteristics. The project golf course open space and parks will provide a significant amount (227.8 acres) of additional park, recreation and openspace for the local community. In addition, at least 10 percent of the units will be considered "affordable" housing. The high school, elementary school and community park will also provide major new public facilities for the local community. The project is planned to include coordinated neighborhood amenities, shopping and employment areas integrated within the residential area, and extensive alternate circulation improvements. Finally, the project is consistent with the density transfer/clustering policies of the General Plan Update, whereby less than 30 percent of the residential land area is in density categories which exceed the designated range.

The new EastLake Policy Plan contains subsections for parks and recreation, public buildings, and bicycle routes as well as the original policies approved in September of 1982. The new policies delete references to the City of Chula Vista's General Plan because the revisions will be incorporated into the General Plan Update. No adverse effects are expected to occur from implementation of the proposed revisions.

The EastLake Greens SPA Plan proposes to implement the EastLake Policy Plan in conformance with the proposed General Plan Update. The proposed General Plan Amendment for the project consists of an expansion of the area included in the EastLake I General Development Plan and a conversion of the land use and density categories used in that exhibit to those being used in the General Plan Update Program. The revised General Development Plan would continue to function as the General Plan for the expanded EastLake I area. The entire EastLake property is included in the City-wide Land Use Map of the recent General Plan Update, and the General Development Plan will serve its zoning function only. The EastLake Policy Plan therefore is superseded by the General Plan policies and programs formulated for the entire Eastern Territories area that are contained within the Eastern Territories Plan.

A majority of the land use designations are consistent with the General Plan Update and the proposed implementing policies of the General Plan Update Program. The remaining EastLake II area (excluding EastLake Trails) will continue to be identified as "Future Urban" and will be governed by the EastLake Policy Plan.

EastLake Trails

The proposed project would annex the EastLake Trails site from the County of San Diego to the City of Chula Vista. The annexation of the 397.9 acre site would also include a pre-zoning and incorporation into the EastLake General Development Plan. The EastLake Trails site is not planned for development at this time but would be subject to a SPA Plan at the time of tentative map submittal, which would likely follow the development of the

EastLake Greens site. Proposed land use designations for the EastLake Trails site include 197.4 acres of residential development with densities ranging from low/medium (3.0 - 6.0 du/acre) to medium/high (11.0 - 18.0 du/acre); a 15.0 acre retail center; 16.5 acres of public/quasi-public; 67.6 acres of parks; and other open space uses. Approximately 63.1 acres of land north of Otay Lakes Road is designated as Future Urban.

The proposed land use designations for EastLake Trails are compatible with planned surrounding land uses. Land uses proposed within the EastLake Greens site to the west are continuous through EastLake Trails. Proposed development within EastLake Greens is buffered from EastLake Trails by Hunte Parkway, which will be landscaped to minimize inconsistent land uses such as commercial adjacent to medium density and low/medium adjacent to medium/high. Residential neighborhoods along the northern and southern boundaries of the site could be affected if future adjacent offsite land uses are not compatible with residential land uses but will be buffered by landscaped roadways (i.e., Otay Lakes Road and Orange Avenue).

Land Use Policy Impact: In addition to the implementation of a new General Development Plan the proposed EastLake Trails involves a number of policy changes or discretionary actions that affect land use policy. These include the annexation and pre-zoning of 397.9 acres, an amendment to the City of Chula Vista General Plan map, and revisions to the EastLake Policy Plan. Effects of these actions are discussed in the following paragraphs.

The proposed annexation would remove 397.9 acres from the County's jurisdiction and would place the acreage within the City of Chula Vista's jurisdiction. This action has been planned for by the City of Chula Vista in its previously approved EastLake Policy Plan and is consistent with County policies A-7 and A-8 of the Otay Subregional Plan. The proposed P.C. prezone will further implement the County goals of coordinated, regulated growth. The potential removal of 397.9 acres of agricultural land does not impact County land use policy because agriculture is considered an interim use. No land use effects are expected to occur as a result of the proposed annexation provided the circulation and public service improvements are phased appropriately (see Sections 4.2 and 4.3).

The proposed amendment to the existing City of Chula Vista General Plan map will standardize the land use categories used on the project site with those used throughout the City of Chula Vista. Reclassifying the land uses planned for EastLake with the same categories and language as the remainder of Chula Vista will improve the consistency of land use classifications, making the planning of the City of Chula Vista more efficient. No adverse land use effects are expected to occur as a result of this action.

The proposed EastLake Policy Plan revisions include the expansion of the P.C. district boundaries to include the EastLake Trails site. Additional policy language would be added to the EastLake Policy Plan to guide the future development of the EastLake Trails Site and EastLake II Future Urban areas. No adverse effects should occur from the proposed revisions.

The proposed land use designations for the EastLake Trails site vary from the land use designations of the Comprehensive General Plan Update land use map for the Eastern Territories; the overall density of the site is lower than the density in the General Plan Update (3.8 for Eastlake Trails and 4.1 in the Update). The proposed EastLake Trails land use designations include mostly low/medium residential, with some medium to medium/high residential uses, an elementary school, two neighborhood parks and a retail center, whereas the General Plan Update designates mostly low/medium residential, an elementary school, commercial center and two neighborhood parks. Because the overall density of the proposed EastLake Trails site is lower than planned for, no significant effects

relating to the General Plan Update program would occur with the annexation and rezoning of the EastLake Trails site.

4.1.3 Mitigation Measures

Mitigation measures to reduce land use impacts associated with traffic, public services, and air quality have been identified in Sections 4.2, 4.3 and 4.7. In addition, residential land uses planned adjacent to or near commercial or industrial uses should be adequately buffered. Necessary measures may include a wall or fence to decrease noise and increase privacy; a physical vertical or horizontal separation between land uses, i.e. a road, slopes or a landscaped open space buffer; or some type of vegetative screen. These measures or a combination of these measures may be necessary along the southern edge of Telegraph Canyon Road and along the northern edge of Orange Avenue. Impacts occurring as a result of site-specific designs should be mitigated on a site-specific basis.

No adverse land use policy impacts would occur; therefore, no mitigation measures or policies are required.

4.1.4 Analysis of Significance

Significant traffic and air quality impacts would occur as a result of proposed development of the EastLake Greens site. These issues are addressed in Sections 4.2 and 4.7, respectively. No other significant impacts would occur if mitigation concerning the adequate buffering of sensitive land uses is implemented.

4.2 TRANSPORTATION AND CIRCULATION

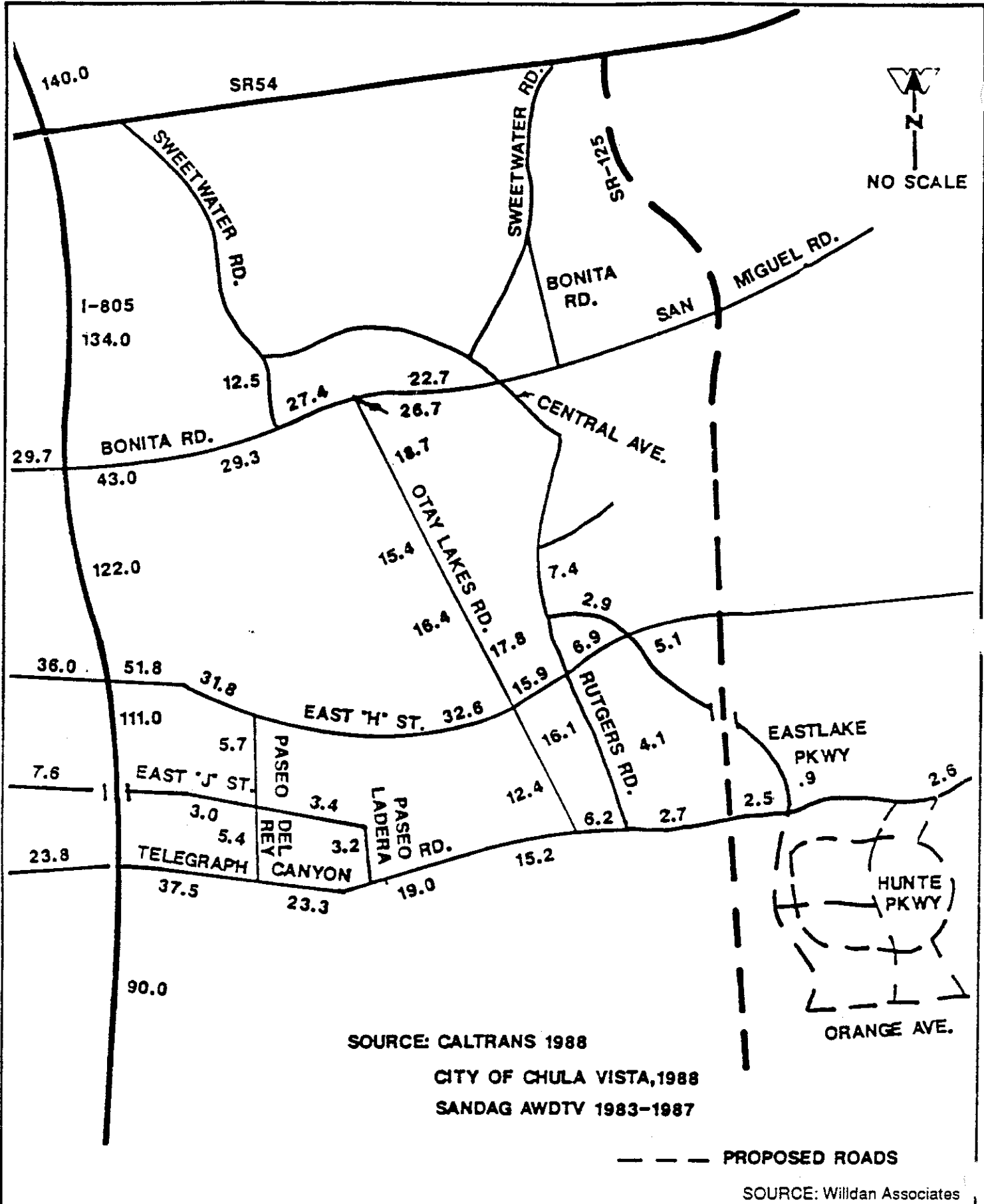
This section is adapted from a traffic analysis report prepared for the project by Willdan Associates in April 1989. Willdan Associates was retained to evaluate the potential impacts to transportation from the proposed development of EastLake Greens and EastLake Trails. The complete technical report is included in this document as Appendix B.

4.2.1 Existing Conditions

Existing regional access to the project vicinity is provided by Interstate 805 via interchanges with East H Street and Telegraph Canyon Road. Direct access to the project site is provided via Telegraph Canyon Road/Otay Lakes Road which bounds the project on the north side.

Interstate 805 (a major north-south, eight-lane divided freeway) branches off Interstate 5 in Sorrento Valley and reconnects in San Ysidro. Currently, the freeway carries 122,000 and 111,000 average daily trips (ADT) north and south of H Street, respectively (see Figure 4-3). South of Telegraph Canyon Road, Interstate 805 carries 90,000 ADT (CALTRANS 1988).

Telegraph Canyon Road varies from a six-lane divided road between Interstate 805 and just west of Otay Lakes Road where it becomes two lanes and carries from 37,500 ADT just east of Interstate 805 (1987) to 15,200 ADT just west of Otay Lakes Road (1987) (Figure 4-3). Telegraph Canyon Road is planned to be a six-lane prime arterial from Interstate 805 to Hunte Parkway (see Appendix B for a description of roadway classifications). Additionally, the easterly segment of Otay Lakes Road is to be renamed Telegraph Canyon Road. This portion has been constructed as a six-lane prime arterial up to EastLake Parkway and is planned to be a travel east through the project.



Existing ADT in the Project Vicinity (In thousands)

**FIGURE
4-3**

Otay Lakes Road varies from two to four lanes in width and carries between 12,400 and 18,700 ADT from Bonita Road south to Telegraph Canyon Road (1988) and between 2,600 and 6,200 ADT to the east. 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 is constructed to six lanes and carries from 51,800 ADT east of Interstate 805 to 32,600 ADT west of Otay Lakes Road (1989). East and west of Paseo del Rey, East H Street carries 32,600 and 31,800 ADT, respectively. East H Street is planned to be a six-lane prime arterial from Interstate 805 east to Otay Lakes Road and a four-lane major road east to the project.

State Route 125 is not currently constructed in the project vicinity. It is proposed to be extended from Highway 54 south as an eight-lane freeway, and when completed, State Route 125 will provide a major north-south link for the EastLake community, providing access from the Mexican border to the eastern portions of the metropolitan San Diego area. Environmental studies for the proposed freeway are currently in progress (June 1989).

Levels of service (LOS) for roadways and intersections are a function of traffic movement and delay. Descriptions of basic LOS conditions are listed below in Table 4-1.

Table 4-1
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 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.

City of Chula Vista Threshold standards for traffic state that, city-wide, LOS C or better must be maintained at all intersections, with the exception that LOS D may occur at signalized intersections for a period not to exceed a total of two hours per day.

Public Transit

Due to the undeveloped nature of lands in the project vicinity, public transit does not currently serve the project site. Chula Vista Transit serves Southwestern College, located approximately 2 miles to the west of the project site, with local routes 704 and 705 via Telegraph Canyon Road and Otay Lakes Road, respectively, and serves the EastLake I area via H Street to EastLake Drive. The San Diego Trolley has stations at Palomar Street and at H Street east of Interstate 5, approximately 5 miles and 8.5 miles west of the site, respectively.

4.2.2 Impacts

As outlined in Appendix B, the San Diego Association of Government's (SANDAG) trip generation program was used to predict traffic volumes and attraction rates between proposed land uses. The project proposed land uses were then related to the land use forecast of the City's General Plan Update. These figures were then assigned to critical street segment and intersection capacities to identify long-term impacts.

Project Traffic Generation and Distribution

Table 4-2 lists the anticipated average daily trips (ADT) resulting from project implementation. As shown in the table, EastLake Greens, in combination with EastLake Trails and the related commercial, recreational, and retail functions in the EastLake Village Center, is expected to add approximately 63,991 ADT to the street system of which 4,650 and 6,420 are assigned to the a.m. and p.m. peak hours, respectively. Analyzing the peak hour impacts is important from a traffic standpoint, as peak hours place the greatest demand on the surrounding street system and intersections. A project such as EastLake Greens (residential, commercial, recreational) would result in approximately 15 to 20 percent of the trips internal to the project.

As shown in Figure 4-4, a large percent of the project's trips (55 percent) would ultimately utilize Telegraph Canyon to access State Route 125 for destinations to the northeast and northwest. Approximately 30 percent would utilize Telegraph Canyon Road and East H Street (with most using Telegraph Canyon Road) for destinations to the west in Chula Vista. Only 7 percent of the project's trips would use State Route 125 for destinations south and west. The remainder of the trips would use other facilities for destinations in all directions.

Street Segments

Short term cumulative traffic volumes for the project buildout are summarized in Figure 4-5 and Table 4-3. As part of the East Chula Vista Transportation Phasing Plan, the land use phasing for the cumulative analysis was developed based on input from area developers, with refinement by City staff. Overall, approximately 10,100 dwelling units, 172 acres of industrial, and 85 acres of commercial uses are assumed to develop in the study area in the short-term. These are not specifically EastLake units but cumulative dwelling units utilized for developing the Transportation Phasing Plan. The cumulative analysis indicates that a number of streets in the project area would need to be constructed or widened to accommodate the anticipated growth.

Table 4-2

TRIP GENERATION

EASTLAKE GREENS:

Land Use	Intensity	Trip Rate	ADT	Percentage of Trips During Am Peak Hour		Percentage of Trips During PM Peak Hour	
				In	Out	In	Out
SFD	1,159 DU	10/DU	11,590	185	742	811	348
MFD	2,060 DU	8/DU	16,480	264	1,054	1,154	494
Apartments	390 DU	6/DU	2,340	37	150	180	77
Golf Course	160.6 acres	5/acre	803	38	10	22	50
High School	49.2 acres	50/acre	2,460	394	98	103	241
Village Center	15.0 acres	500/acre	7,500	135	90	375	375
Elementary School	10.6 acres	60/acre	636	99	66	10	22
Community Park	15.1 acres	50/acre	755	15	15	30	30
Neighborhood	15.5 acres	5/acre	78	2	2	3	3
Public/Quasi-public	28.0 acres	50/acre	1,400	17	67	88	38
Subtotal:			44,042	1,186	2,294	2,776	1,678

Table 4-2 (Continued)

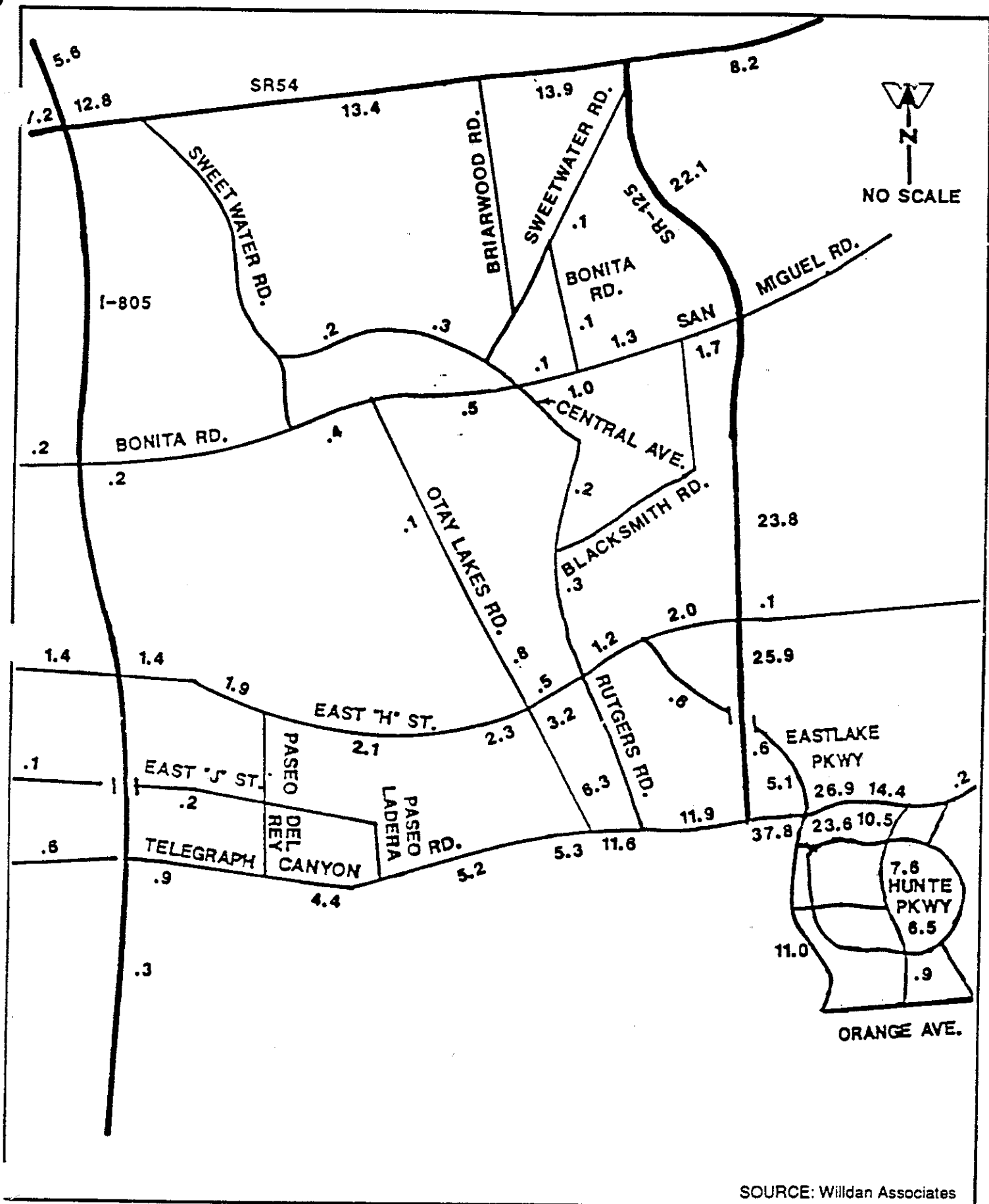
TRIP GENERATION

EASTLAKE TRAILS:

Land Use	Intensity	Trip Rate	ADT	Percentage of Trips During Am Peak Hour		Percentage of Trips During PM Peak Hour	
				In	Out	In	Out
SFD	793 DU	10/DU	7,930	127	507	555	238
MFD	467 DU	8/DU	3,736	60	239	262	112
Neighborhood Comm.	11.0 acres	500/acre	5,500	99	66	275	275
Equestrian Center	54.2 acres	50/acre	2,710	32	32	171	73
Neighborhood Park	14.6 acres	5/acre	73	2	2	3	3
Subtotal			19,949	320	846	1,266	701
			<u>44,042</u>	<u>1,186</u>	<u>2,294</u>	<u>2,776</u>	<u>1,678</u>
TOTAL			<u>63,991</u>	<u>1,506</u>	<u>3,140</u>	<u>4,042</u>	<u>2,379</u>

ADT = Average Daily Trips
 SFD = Single-family dwelling unit
 MFD = Multi-family dwelling unit

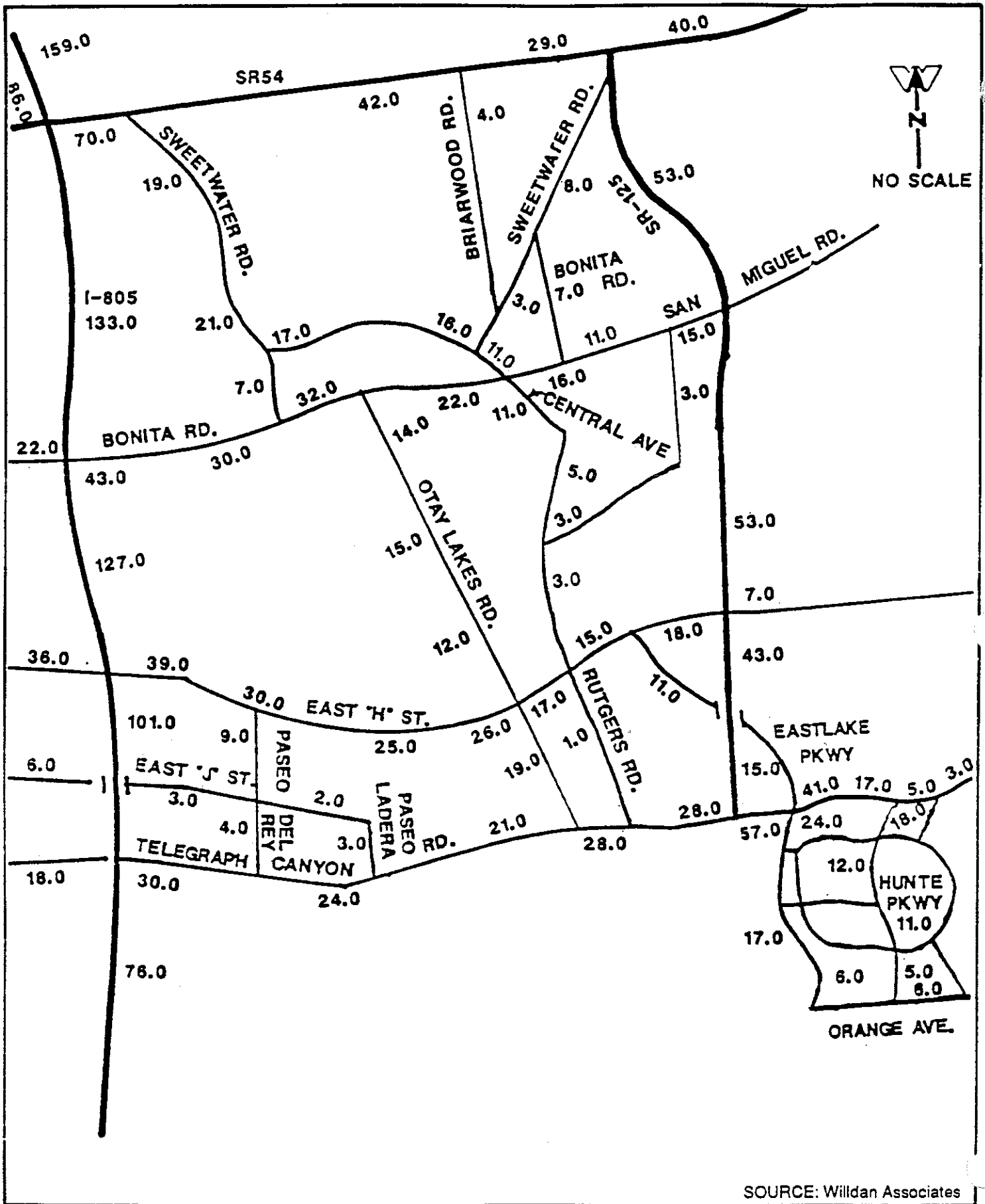
Source: Willdan Associates, 1989.



Project Only Assignment (in thousands) with SR 125 as a Freeway

**FIGURE
4-4**





SOURCE: Willdan Associates

Short Term Cumulative Volumes(In Thousands)
with SR 125 as a Freeway

FIGURE
4-5

Table 4-3

SHORT-TERM CUMULATIVE STREET SEGMENT OPERATIONS
IN THE PROJECT VICINITY

Street Segment	Classification	Cumulative ADT	Roadway LOS	Project ADT	Project's Percentage of Cumulative ADT
<u>Telegraph Canyon Road</u>					
East of:					
I-805	Major (6)	29,900	A	900	3%
Pasco del Rey	Major (4)	15,500	A	1,300	8%
Medical Center Dr.	Major (4)	23,600	B	4,400	19%
Otay Lakes Rd.	Prime (6)	28,300	A	11,600	41%
Rutgers Rd.	Prime (6)	27,700	A	11,600	42%
SR 125	Prime (6)	57,400	E	37,800	66%
EastLake Pkwy.	Prime (6)	40,700	B	26,900	66%
EastLake Boundary	Class III Collector	3,200	A	200	6%
<u>State Route 125</u>					
North of:					
Telegraph Canyon Rd.	4 lane freeway	42,500	N/A	25,900	61%
East "H" St.	4 lane freeway	53,000	N/A	23,800	45%
San Miguel Rd.	4 lane freeway	53,200	N/A	22,100	42%
<u>East "H" Street</u>					
East of:					
I-805	Prime (6)	38,600	B	1,400	4%
Terra Nova	Prime (6)	30,500	A	1,900	6%
Pasco del Rey	Prime (6)	24,900	A	2,100	8%
Buena Vista	Prime (6)	24,600	A	2,300	9%

Table 4-3 (Continued)

SHORT-TERM CUMULATIVE STREET SEGMENT OPERATIONS
IN THE PROJECT VICINITY

Street Segment	Classification	Cumulative ADT	Roadway LOS	Project ADT	Project's Percentage of Cumulative ADT
<u>East "H" Street (continued)</u>					
Otay Lakes Rd.	Major (4)	16,500	A	500	3%
Corral Cyn. Rd.	Major (4)	14,700	A	1,200	8%
EastLake Pkwy.	Major (4)	18,200	A	200	1%
SR 125	Major (4)	6,900	A	100	1%
<u>Otay Lakes Road</u>					
North of:					
Telegraph Cyn. Rd.	Major (4)	19,400	A	6,300	32%
East "H" St.	Major (4)	14,400	A	800	6%
Canyon Dr.	Major (4)	10,900	A	100	1%
Allen School Ln.	Major (4)	14,000	A	0	---
<u>Rutgers Road/Corral Canyon Road</u>					
North of:					
Telegraph Cyn. Rd.	Class III Collector	1,300	A	0	---
East "H" St.	Class III Collector	1,500	A	0	---
EastLake Pkwy.	Class III Collector	3,100	A	300	10%
Country Vistas Rd.	Class III Collector	2,700	A	200	1%
Backsmith Rd.	Class III Collector	5,400	A	200	4%

Table 4-3 (Continued)

SHORT-TERM CUMULATIVE STREET SEGMENT OPERATIONS
IN THE PROJECT VICINITY

Street Segment	Classification	Cumulative ADT	Roadway LOS	Project ADT	Project's Percentage of Cumulative ADT
<u>Bonita Road</u>					
East of:					
I-805	Major (4)	43,000	F*	200	1%
Plaza Bonita Dr.	Major (4)	29,300	C	200	1%
Willow St.	Major (4)	32,100	D**	200	1%
Otay Lakes Rd.	Major (4)	22,300	A	400	2%
Acacia Ave.	Major (4)	19,400	A	600	3%
Central Ave.	Major (4)	15,900	A	1,100	7%
San Miguel Rd.	Major (4)	6,600	A	100	2%
<u>Central Avenue</u>					
East of:					
Bonita Rd.	Class I Collector	10,500	A	0	---
Frisbee Rd.	Class II Collector	10,300	B	200	2%

(#) = number of roadway lanes

* This street segment currently operates at LOS F.

** This street segment currently operates at LOS D.

Source: Willdan Associates, 1989.

As shown in Table 4-3, with the assumption that SR-125 is constructed as a four lane freeway in the interim, most of the street segments in the project vicinity would operate at acceptable levels of service (LOS C or better). The exceptions are Telegraph Canyon Road between SR-125 and EastLake Parkway, which is projected to carry 57,400 ADT and operate at LOS E, and Bonita Road, which would carry 43,00 ADT and operate at LOS F and LOS D, on certain segments between I-805 and Otay Lakes Road. In the case of the Telegraph Canyon Road segment, the project would contribute to 66 percent of the cumulative daily traffic volumes representing a significant impact to transportation in the project vicinity. However, along Bonita Road, just east of I-805, the LOS F is consistent with existing conditions and is not considered a project related impact. For Bonita Road between Willow Street and Otay Lakes Road, under short-term cumulative conditions the project would only contribute to 1 percent of the total daily traffic, or 200 trips, which also represents an insignificant impact on traffic conditions. All other street segments would operate at fully acceptable levels of service under their assumed configuration and anticipated short term cumulative development.

Intersections

The intersections subject to the greatest potential impacts from the project were analyzed using adjusted peak period turning movement volumes from the computer model. The analysis consisted of Intersection Capacity Utilization (ICU) calculations which indicate the level of service expected. These ICU's were performed under short term cumulative conditions with the project built out. A summary of the analysis appears in Table 4-4.

For the purpose of this analysis, intersection geometrics were based on the assumed road standards. It should be noted that these turning movements are preliminary and are intended to verify street classifications in a general sense only. Specific improvement requirements should be made at the time each tentative map is approved.

All intersections in the project vicinity, with appropriate striping or minor street widening, can achieve desirable levels of service under short term cumulative development without deviating from the SPA Plan "Circulation Element" lane parameters (see Figure 2-6).

The Telegraph Canyon Road/State Route 125 intersection is projected to operate at LOS D during the peak hour as a standard at-grade signalized intersection. This LOS would represent a significant impact to transportation in the project vicinity. Due to the high volume of southbound left turning vehicles from State Route 125 to eastbound Telegraph Canyon Road, (1,464 during the peak hour), construction of a southbound to eastbound loop ramp would result in LOS A reducing the impact to below a level of significance.

Access

Access to the project is proposed at seven locations. The major loop street within EastLake Greens would access Hunte Parkway at three locations, the entry roads to the major loop street would access EastLake Parkway at two locations, and the Village Center would access Telegraph Canyon Road at one location. The EastLake Trails entry roads would access Telegraph Canyon Road and Orange Avenue at one location.

A signal warrant analysis was conducted by Willdan Associates at all seven locations to evaluate the necessity of signalization under short term cumulative conditions with the project builtout (see Appendix B). It was determined that the north entry road and south entry road with EastLake Parkway would require signalization. In addition, the north loop connection to Hunte Parkway would warrant signalization.

Table 4-4

PROJECT VICINITY INTERSECTION
PEAK HOUR LEVELS OF SERVICE

Intersections	Level of Service with State route 125 as a 4-lane Freeway**
Telegraph Canyon Road/ Eastlake Parkway	C
Telegraph Canyon Road/ Hunte Parkway	B
Telegraph Canyon Road/ SR-125	D*
Telegraph Canyon Road/ Rutgers Road	A
Telegraph Canyon Road/ Otay Lakes Road	C
I-805 N/B Ramps/ Telegraph Canyon Road	C
I-805 S/B Ramps/ Telegraph Canyon Road	B
East H Street/Otay Lakes Road	C

* LOS A if southbound SR-125 to eastbound Telegraph Canyon Road loop ramp is constructed.

** Levels of Service are defined in Table 4-1.

Source: Willdan Associates 1989.

Due to the configuration of the major loop street, signal warrants were also conducted for both entry roads off EastLake Parkway with the major loop street (see Appendix B). It was determined that signalization would be warranted at the intersection of the entry roads with the major loop street.

Internal Circulation

The EastLake Greens and Trails project proposes one major loop street from Hunte Parkway south of Telegraph Canyon Road, forming a circle east of Hunte Parkway just north of Orange Avenue. A street also connects the south entry road to Hunte Parkway. Two connections to EastLake Parkway would also occur from the major loop street. The project's circulation plan shows the major loop street as an 72-foot right-of-way (two travel lanes and a center left turn lane with widening at intersections) (Figure 2-6).

Figure 4-6 identifies projected short-term cumulative volumes on the project's internal and surrounding street systems. This network would operate at acceptable LOS for all onsite streets excepting EastLake Parkway. If EastLake Parkway is constructed as a four-lane major road the projected volumes would be accommodated at LOS C on most segments.

The current site utilization plan does not show individual lots. Therefore, specific access to individual lots should be coordinated with the City Traffic Engineer when Tentative Maps are submitted.

Phasing of Circulation Improvements

The preliminary Transportation Phasing Plan for East Chula Vista identifies and analyzes five phases of development in the Eastern Territories.

According to this, the construction of State Route 125 will be needed to accommodate cumulative traffic flows in Phase 5. This assumes the development of 9,100 dwelling units, 172 acres of industrial, and 85 acres of commercial uses. The EastLake II project was assumed to represent 3,753 dwelling units and 15 acres of commercial uses of the above mentioned land use total.

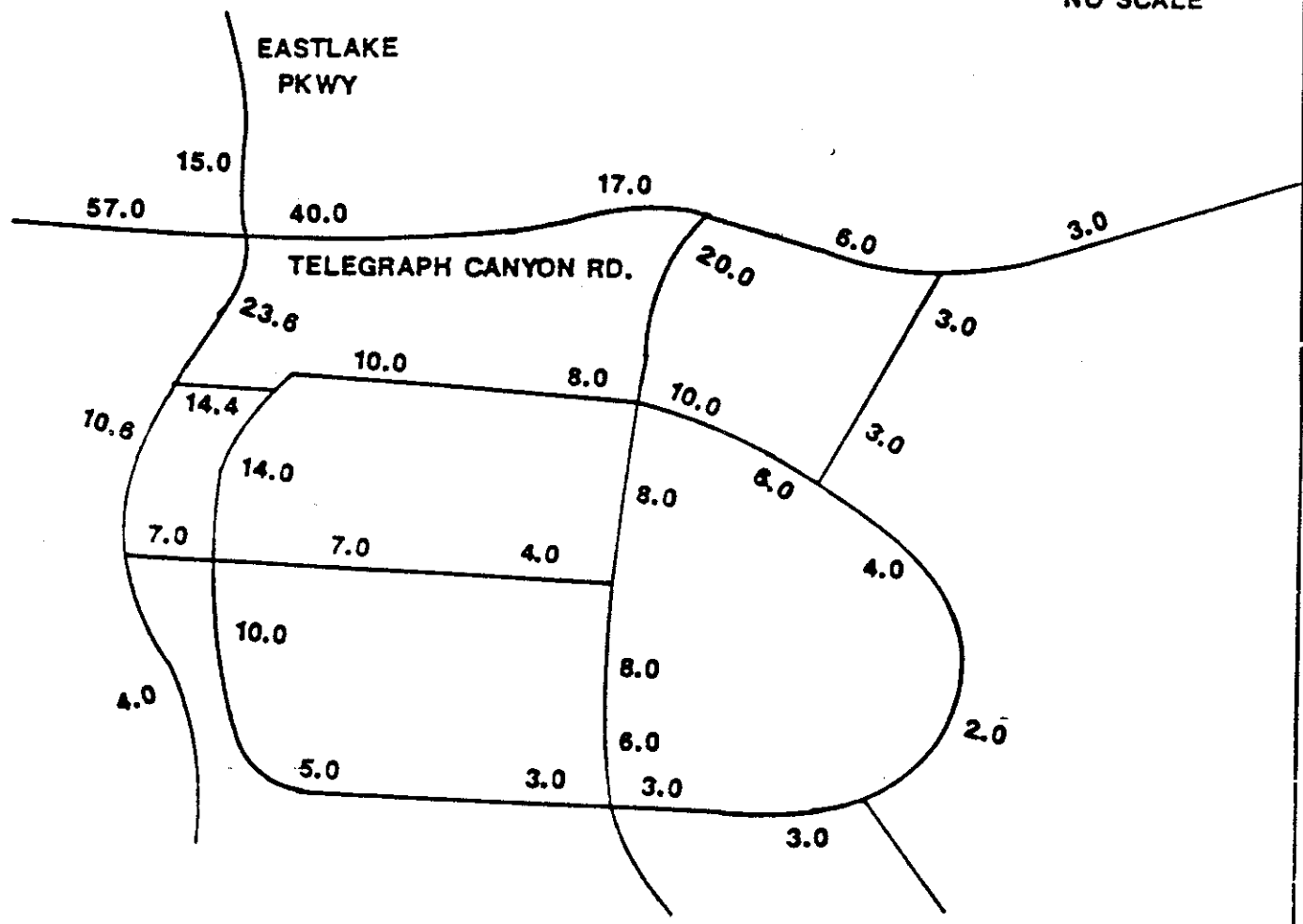
It should be noted that the EastLake II was phased in six development increments along with other assumed developments. Table 3 in the Traffic Analysis (Appendix B) indicates the development increments and shows approximately 1,500 to 2,000 dwelling units along with associated industrial and commercial uses per phase in the overall East Chula Vista area. As this anticipated development occurs, the phased improvement of circulation streets will be necessary to accommodate newly generated trips at acceptable levels of service.

Improvements to the street system prior to the construction of State Route 125 are listed in Table 5 of the Traffic Analysis. Table 4-5 of this SEIR indicates the preliminary street improvements required for each development phase.

In summary, the EastLake II project can develop to 3,753 dwelling units and 15 acres of commercial uses prior to the construction of State Route 125, assuming land use phasing and street improvements are consistent with the assumptions utilized in the draft East Chula Vista Transportation Phasing Plan. EastLake II can fully buildout if State Route 125 is constructed between Telegraph Canyon Road and State Route 54 as a four-lane freeway to achieve acceptable levels of service within the study area.



NO SCALE



SOURCE: Willdan Associates

Short Term Cumulative Volumes on Project Internal Street System(In thousands)

FIGURE 4-6



**Table 4-5
East Chula Vista Transportation Phasing Program**

Street Segment	C.E. Class	1987 Counts		Base Year (1-1-89)		Phase 1		Phase 2	
		Config	Vol LOS	Config	Vol LOS	Config	Vol LOS	Config	Vol LOS
<u>Telegraph Canyon Road</u>									
1. 1-805 - Oleander	6P	6P	38.0 B	6P	37.9 B	6P	41.0 B	6P	29.5 A
Oleander - Paseo del Rey	6P	4M	25.0 B	4M	25.0 B	4M	28.6 C	4M	14.3 A
Paseo del Rey - Medical Ctr	6P	4M	25.2 B	4M	22.9 B	4M	25.9 B	4M	12.6 A
Medical Ctr - Paseo Ladera	6P	4M	15.7 A	4M	12.6 A	4M	14.0 A	4M	19.4 A
2. Paseo Ladera - Buena Vista	6P	2C11	14.2 C*	2C11	11.0 C	4M	12.5 A	4M	17.5 A
Buena Vista - Otay Lakes Rd	6P	2C11	12.7 C*	2C11	9.4 B	4M	11.4 A	4M	16.3 A
3. Otay Lakes Rd - Rutgers	6P	2C11	7.4 A	2C11	14.1 C*	4M	19.5 A	4M	25.1 B
Rutgers - EastLake	6P	2C11	6.5 A	2C11	14.6 C*	4M	20.8 A	4M	25.3 B
EastLake - Hunte	6P/4M	2C11	4.3 A	2C11	11.9 C	4M	16.4 A	4M	19.2 A
Hunte - East City Limits	4CI	2C11	2.4 A	2C11	2.5 A	2C11	2.5 A	2C11	2.7 A
<u>Otay Lakes Road</u>									
4. Bonita Rd - Canyon Dr	6P	4M/2C11	16.2 C	4M/2C11	19.7 C	4M	20.3 A	4M	25.2 B
Canyon Dr - East "H" St	6P	4M/2C11	16.6 C	4M/2C11	18.9 C	4M	19.4 A	4M	22.3 A
5. East "H" St - Gotham	6P	4M	12.1 A	4M	15.2 A	4M	18.2 A	4M	23.2 B
Gotham - Telegraph Canyon Rd	6P	4M	10.7 A	4M	12.9 A	4M	16.5 A	4M	23.3 B
<u>East "H" Street</u>									
7. 1-805 - Ridgeback	6P	4D	29.6 C	6P	36.2 A	6P	42.2 B	6P	39.9 B
Ridgeback - Paseo del Rey	6P	2C11	20.1 D*	6P	26.9 A	6P	31.5 A	6P	29.2 A
Paseo del Rey - Buena Vista	6P	2C11	20.5 D*	6P	30.2 A	6P	32.3 A	6P	32.5 A
Buena Vista - Otay Lakes Rd	6P	4D	19.7 A	6P	29.0 A	6P	31.3 A	6P	26.9 A
8. EastLake Pkwy - SR-125	4M	4M	6.8 A	4M	9.6 A	4M	9.2 A	4M	9.0 A
<u>San Miguel Road</u>									
9. Bonita Rd - SR-125	4CI	2C11	4.9 A	2C11	4.9 A	2C11	4.9 A	2C	5.8 A
<u>Central Avenue</u>									
10. Bonita Rd - Frisbie	4CI	4CI	10.0 A	4CI	11.4 A	4CI	13.1 A	4CI	12.5 A
Frisbie - Corral Canyon	4CI	2C11	8.0 A	2C11	9.4 B	2C11	10.3 B	2C11	10.3 B

* Capacities tend to be higher on rural roadways. The City's General Plan capacities are for urban conditions and tend to be conservative. Levels of service for rural conditions are estimated based on field observation.

Table 4-5 (Continued)
East Chula Vista Transportation Phasing Program

Street Segment	C.E. Class	1987 Counts		Base Year (1-1-89)		Phase 1		Phase 2	
		Config	Vol LOS	Config	Vol LOS	Config	Vol LOS	Config	Vol LOS
Bonita Road									
1. Otay Lakes Rd - Acacia	4M	2C11	21.7 E**	2C11	21.7 E**	2C11	21.7 E**	2C11	22.0 E**
Acacia - Central	4M	2C11	20.1 E**	2C11	20.2 E**	2C11	20.2 E**	2C11	21.0 E**
Central - San Miguel	4M	2C11	12.2 D**	2C11	13.4 D**	2C11	14.0 E**	4M	17.2 A
San Miguel - Sweetwater	4M	2C11	9.8 B	2C11	10.9 C	2C11	11.6 C	2C11	13.9 D**
Sweetwater Road									
2. Bonita Rd - SR-54	4C1	2C11	10.0 B	2C11	11.0 C	2C11	11.6 C	2C11	13.4 D**
SR-125									
SR-54 - San Miguel	8 Ln Fwy	N/A	N/A N/A	N/A	N/A N/A	N/A	N/A N/A	N/A	N/A N/A
San Miguel - East 11th St	8 Ln Fwy	"	"	"	"	"	"	"	"
E. 11th St - Telegraph Cyn	8 Ln Fwy	"	"	"	"	"	"	"	"
Telegraph Cyn - Orange Ave	8 Ln Fwy	"	"	"	"	"	"	"	"

* Levels of service estimated due to rural conditions. These roadway segments are currently under County jurisdiction and are not significantly impacted by development in early TPP phases.

- 6P - 6 lane Prime Arterial
- 4M - 4 lane Major
- 4C1 - 4 lane Class 1 Collector
- 2C11 - 2 lane Class II Collector

Table 4-5 (Continued)
East Chula Vista Transportation Phasing Program

Street Segment	C.E. Class	Phase 3		Phase 4		Phase 5		Phase 6	
		Config	Vol LOS	Config	Vol LOS	Config	Vol LOS	Config	Vol LOS
<u>Telegraph Canyon Road</u>									
1. I-805 - Oleander	6P	6P	32.2 A	6P	34.4 A	6P	30.3 A	6P	30.3 A
Oleander - Paseo del Rey	6P	4M	17.4 A	4M	19.4 A	4M	17.1 A	4M	17.1 A
Paseo del Rey - Medical Ctr	6P	4M	15.2 A	4M	17.3 A	4M	15.4 A	4M	15.4 A
Medical Ctr - Paseo Ladera	6P	4M	22.2 A	4M	24.0 B	4M	21.4 A	4M	21.4 A
<u>Paseo Ladera - Buena Vista</u>									
2. Buena Vista - Otay Lakes Rd	6P	4M	20.3 A	4M	22.2 A	4M	19.1 A	4M	19.1 A
	6P	4M	19.2 A	4M	21.0 A	4M	17.7 A	4M	17.7 A
<u>Otay Lakes Rd - Rutgers</u>									
3. Rutgers - EastLake	6P	6P	30.9 A	6P	34.0 A	6P	27.5 A	6P	27.5 A
EastLake - Hunte	6P/4M	4M	31.6 A	6P	33.9 A	6P	26.9 A	4M	26.9 A
Hunte - East City Limits	4CI	2CI1	23.8 B	4M	25.9 B	4M	21.2 A	2CI1	21.2 A
			2.8 A	2CI1	2.8 A		2.8 A		2.8 A
<u>Otay Lakes Road</u>									
4. Bonita Rd - Canyon Dr	6P	4M	27.2 C	4M	29.3 C	4M	17.3 A	4M	17.3 A
Canyon Dr - East "H" St	6P	4M	24.0 B	4M	26.0 B	4M	18.0 A	4M	18.0 A
<u>East "H" St - Gotham</u>									
5. East "H" St - Gotham	6P	4M	26.2 B	4M	27.5 C	4M	22.8 B	4M	22.8 B
Gotham - Telegraph Canyon Rd	6P	4M	25.5 B	4M	26.9 C	4M	22.0 A	4M	22.0 A
<u>East "H" Street</u>									
7. I-805 - Ridgeback	6P	6P	45.1 C	6P	48.5 C	6P	38.9 B	6P	38.9 B
Ridgeback - Paseo del Rey	6P	6P	29.2 A	6P	36.8 A	6P	24.6 A	6P	24.6 A
Paseo del Rey - Buena Vista	6P	6P	32.4 A	6P	34.5 A	6P	28.1 A	6P	28.1 A
Buena Vista - Otay Lakes Rd	6P	6P	30.7 A	6P	32.4 A	6P	26.5 A	6P	26.5 A
8. EastLake Pkwy - SR-125	4M	4M	12.3 A	4M	14.9 A	4M	25.5 B	4M	25.5 B
<u>San Miguel Road</u>									
9. Bonita Rd - SR-125	4CI	2CI1	5.0 A	2CI1	5.2 A	2CI1	9.4 B	2CI1	9.4 B
<u>Central Avenue</u>									
10. Bonita Rd - Frisbie	4CI	4CI	14.1 A	4CI	14.1 A	4CI	12.2 A	4CI	12.2 A
Frisbie - Corral Canyon	4CI	4CI	13.2 D	4CI	13.4 A	4CI	11.7 A	4CI	11.7 A

* Capacities tend to be higher on rural roadways. The City's General Plan capacities are for urban conditions and tend to be conservative. Levels of service for rural conditions are estimated based on field observation.

Table 4-5 (Continued)
East Chula Vista Transportation Phasing Program

Street Segment	C.E. Class	Phase 3		Phase 4		Phase 5		Phase 6	
		Config	Vol LOS	Config	Vol LOS	Config	Vol LOS	Config	Vol LOS
<u>Bonita Road</u>									
11. Otay Lakes Rd - Acacia	4M	4M	25.1 E**	4M	26.3 B	4M	19.6 A		
Acacia - Central	4M	2C11	23.4 E**	4M	25.4 B	4M	16.7 A		
Central - San Miguel	4M	2C11	18.0 E**	4M	19.9 A	4M	12.7 A		
San Miguel - Sweetwater	4M	2C11	14.5 E**	4M	16.3 A	4M	5.7 A		
<u>Sweetwater Road</u>									
12. Bonita Rd - SR-54	4C1	2C11	14.2 E**	4C1	15.9 A	4C1	6.6 A		
<u>SR-125</u>									
SR-54 - San Miguel	8 Ln Fwy	N/A	N/A N/A	N/A	N/A N/A	4 Ln Fwy	39.0 -		
San Miguel - East "H" St	8 Ln Fwy	"	"	"	"	4 Ln Fwy	34.1 -		
E. "H" St - Telegraph Cyn	8 Ln Fwy	"	"	"	"	4 Ln Fwy	-----		
Telegraph Cyn - Orange Ave	8 Ln Fwy	"	"	"	"	N/A	-----		

** Levels of service estimated due to rural conditions. These roadway segments are currently under County jurisdiction and are not significantly impacted by development in early TPP phases.

- 6P - 6 lane Prime Arterial
- 4M - 4 lane Major
- 4C1 - 4 lane Class 1 Collector
- 2C11 - 2 lane Class 1 Collector

Transit Requirements

The projected increase in population and employment associated with the EastLake Greens development would necessitate an extension of the Chula Vista Transit services at full project buildout. The developer should coordinate the expansion of the Chula Vista Transit local routes with the phasing of the EastLake community. Provisions for public transit facilities to serve the extended service would be required prior to final approval of the SPA Plan.

4.2.3 Mitigation Measures

In this analysis, both short term cumulative and site specific impacts have been identified. It is understood that an overall capital improvement program, including a phasing and financing plan, is being developed. It is anticipated that all study area developers will participate on a proportionate basis.

This Eastern Territories Capital Improvement Program (CIP) is expected to utilize funding techniques such as Assessment District, Facility Benefit Assessments, and reimbursement agreements. It will further tie the issuance of building permits to the construction of street improvements.

The analysis indicated potential site specific and cumulative impacts along Telegraph Canyon Road east of proposed State Route 125.

In order to mitigate the site specific impacts, the following must be completed:

1. Improve Telegraph Canyon Road between State Route 125 and the EastLake Greens/Trails boundary to six lane prime arterial standards.
2. Construct Hunte Parkway and EastLake Parkway as major roads between Telegraph Canyon Road and Orange Avenue.
3. Construction of a southbound State Route 125 to eastbound Telegraph Canyon Road loop ramp at the State Route 125/Telegraph Canyon Road intersection or extend State Route 125 south to East Palomar Street (which would connect to the EastLake II street system).

The off site cumulative impacts can be mitigated to insignificant levels by participating in the East Chula Vista Transportation Phasing Plan on a fair share basis with other area developers. The phasing plan will tie road improvements to issuance of building permits and designate threshold levels to insure improvements are completed when capacity is needed. As development plans change and/or economic conditions change, the area-wide transportation phasing should be reevaluated when deemed appropriate by the City Engineer.

Internal to the project, individual subdivisions shall construct the internal loop street to Class II collector standards, with entry roads widened to accommodate a median. Traffic signals shall be installed at intersections of major roads with prime arterials and project access points with Circulation Element streets where signal warrants are met. Traffic signals shall also be constructed at both north and south entry roads with the project loop street. Signals shall be installed if warrants are met and the City Engineer determines they are needed.

Transit Requirements

The proposed phased development of the EastLake Greens and EastLake Trails communities will require regular coordination with the City of Chula Vista to insure compatibility with the expansion of municipal transit routes and facilities (as outlined in the Circulation Element of the SPA Plan).

The SPA Plan provides for the development of alternate transit, including pedestrian and bicycle trails, within the project site. All bikeways should be designed and constructed in accordance with CALTRANS "Planning and Design Criteria for Bikeways in California" to comply with state standards.

4.2.4 Analysis of Significance

The traffic analysis indicates that a number of streets in the project vicinity would require construction of improvements to accommodate projected cumulative growth. EastLake Greens and Trails would not significantly impact all of these streets, although project development would generate significant traffic volumes on several street segments (see Table 4-3). With the mitigation measures proposed in this analysis, no significant adverse traffic impacts would result from the implementation of the EastLake Greens and Trails project.

4.3 SERVICES/UTILITIES

4.3.1 Water Availability

EastLake Greens lies within the boundary of the Otay Water District, but is not in an improvement district. To obtain water service, it will be necessary to annex the territory to be served to Improvement District No. 22 (ID-22). EastLake, in general, will be served by the Central Area water system. Currently, there are two connections to Pipeline No. 3 of the Second San Diego Aqueduct (which traverses the southwestern portion of the site), No. 4 and No. 9. These supply the Central Area system or service zone.

Several pressure zones lie in the Central Area service zone. EastLake is primarily served off of the 710 and 980 pressure zones. Water to the 710 pressure zone is pumped through the Central Area pump station to a 3.0 MG reservoir (710-1). The 980 pressure zone is served via the EastLake pump station which in turn pumps water to two 5.0 MG reservoirs located in the District's Use Area with a high water level of 980.

Two existing reservoirs, Patzig, with a capacity of 12 MG and the 624-2, with a capacity of 8.0 MG, are considered to be terminal reservoirs and are fed directly off the No. 4 and No. 9 Connections, respectively. Currently, the rated capacity of the Central Area pump station is about 12,000 gallons per minute (gpm) and the rated capacity of the EastLake pump station is 4,000 gpm.

There are proposed plans to expand the Central Area Pump Station capacity from 12,000 gpm to 16,000 gpm, to construct a water line to Otay Lakes Road from the station, to expand the capacity of the existing F10-1 reservoir by 2 MG, and to expand the EastLake pump station to 8,000 gpm. In addition, one 50-mg seasonal storage reservoir is proposed onsite (parcel PQ-1, Figure 2-5), and one is proposed offsite, just west of proposed SR-125 and south of the existing Central Area facilities on Baldwin property. In case of an emergency, such as a break in the aqueduct, storage in the reservoirs would be utilized. The 50-mg reservoir considered for Parcel Q-1 of EastLake Greens will be a buried concrete terminal reservoir with low and high water levels of 596' and 624' respectively.

The tank will be filled by either a new connection or the existing No. 4 connection to the second San Diego Aqueduct. The outlet piping will cross the proposed SR-125 right-of-way and connect to the existing central area water system east of future SR-125.

This reservoir will provide an initial 5-day (average) storage as the first stage in achieving the District's objective of 10 average days of storage. An environmental constraints evaluation of the EastLake and Baldwin sites is underway. The report is anticipated to be completed for OWD by fall 1989.

As EastLake continues to develop and the capacity of the EastLake pump station is reached, another pump station will have to be built to meet the demands in the 980 pressure zone. Another 710 reservoir (710-3) is planned to be in the EastLake Greens to provide service to the 710 pressure zone west of the Central Area site. Onsite and some offsite water system improvements are included in Figure 4-7. To meet future demands in areas adjacent to EastLake Greens, oversizing of pipes is planned. The sizing of these pipes has not been determined (Arroyo 1989).

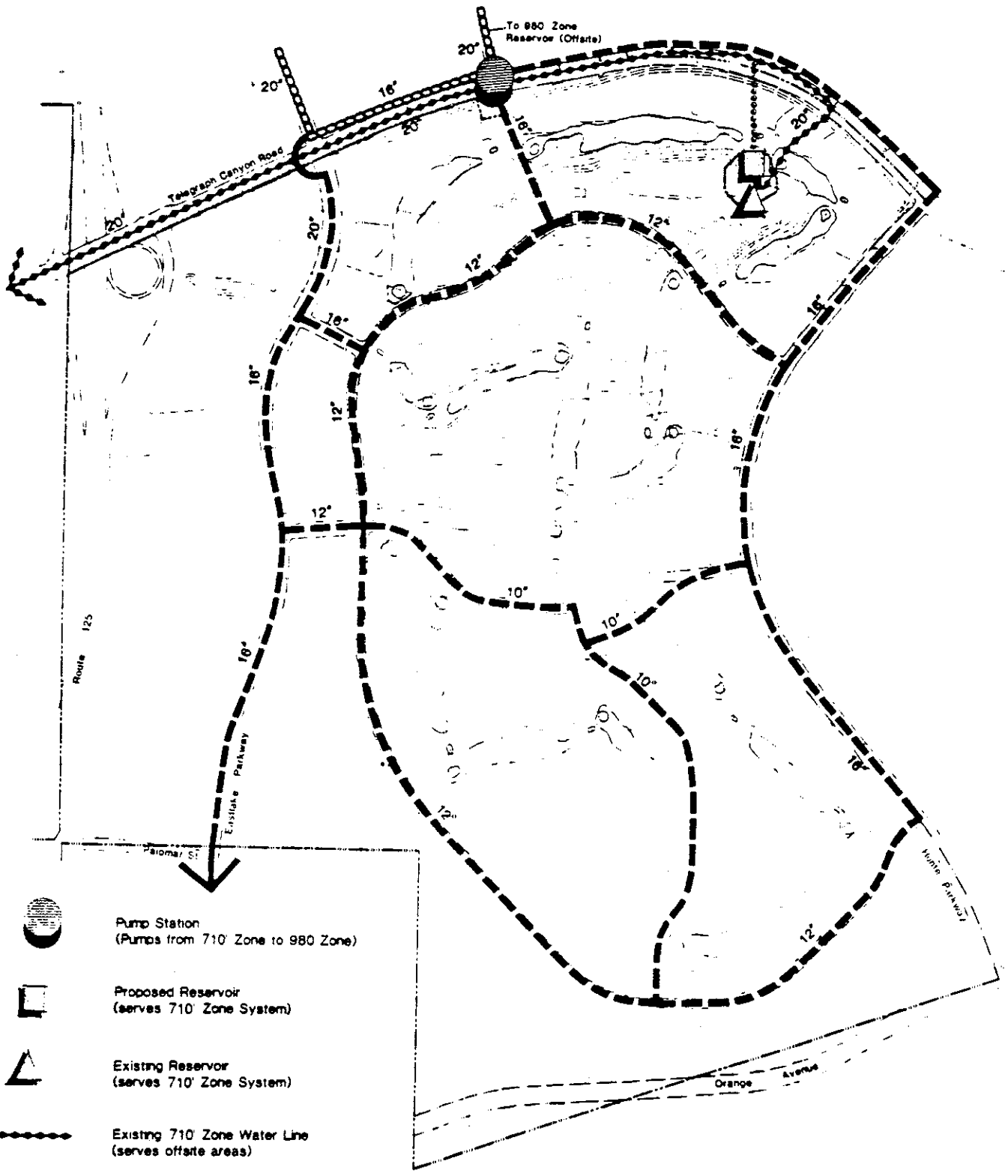
There is currently no reclaimed wastewater use onsite. The Otay Water District's Jamacha Wastewater Reclamation Plant utilizes tertiary treatment methods and distributes reclaimed wastewater to the SDG&E Miguel Substation for irrigation purposes. The initial phase of the irrigation system for EastLake Greens has been constructed in Lane Road through the EastLake Employment Park (NBS/Lowry 1987); the Otay Water District has stated that it will provide reclaimed wastewater to EastLake for irrigation use at the park, schools and some streetside manufactured slope areas. Figure 4-8 illustrates the proposed onsite reclaimed wastewater distribution system.








Objectives and thresholds for water quality and availability have been determined by the City of Chula Vista. To ensure that water quality standards are not decreased during development in the City and that adequate storage and construction of facilities occurs concurrently with growth, the City of Chula Vista requires a service availability letter from the corresponding water district for each project. An annual development forecast from the City and the CWA to the water districts, requesting information on water availability, capacity and quality is also required. The Growth Management Oversight Committee (GMOC) will review impacts to water availability and quality on an annual basis, after reviewing the Water District's response letters. The GMOC presents its report to the City Council of Chula Vista with its determination. In addition, the San Diego County Water Authority has stated that during hot weather, the capacity of Pipeline No. 3 may be reached and has stated that the Otay Water District may be limited to a maximum of 38 cfs during these periods. The District, in conjunction with the CWA, Helix Water District, Padre Dam Municipal Water District, City of San Diego, and Sweetwater Authority, is evaluating short-term and long-term projects that can be implemented to meet the demands in the south county region. However, until more defined information becomes available, the Otay Board of Directors has approved a water allocation report that may limit the number of units that can be built in 1 year by developers within the Otay Water District.

Impacts

EastLake Greens

Based on water consumption rates and land use allocations shown in Table 4-6, EastLake Greens would require approximately 1.77 mgd of water. According to the OWD, the provision of domestic water to the EastLake I and EastLake Greens projects can be achieved through existing infrastructure until the 980'-Zone pump station's 4000 gpm



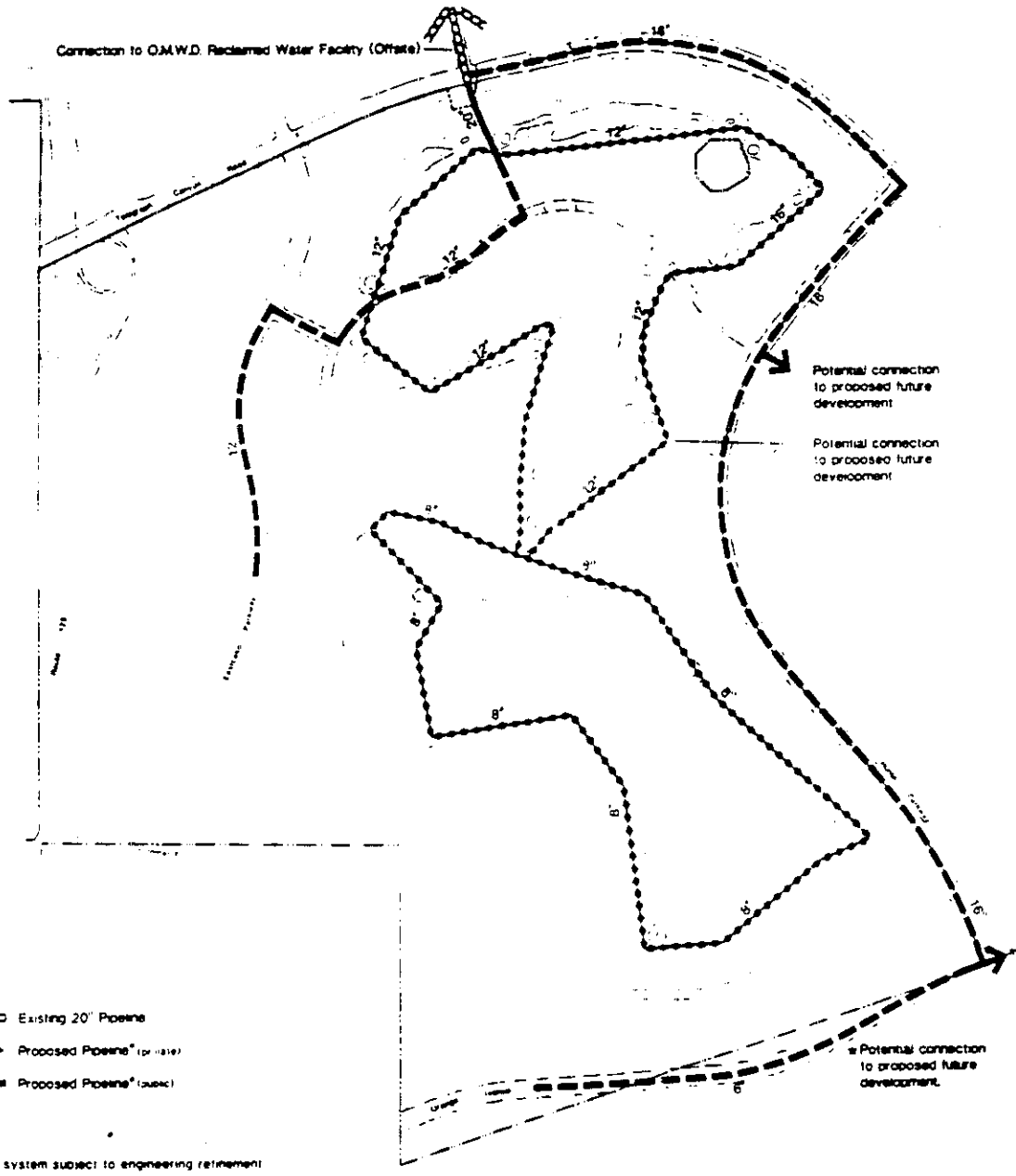
-  Pump Station
(Pumps from 710' Zone to 980 Zone)
-  Proposed Reservoir
(serves 710' Zone System)
-  Existing Reservoir
(serves 710' Zone System)
-  Existing 710 Zone Water Line
(serves offsite areas)
-  Relocation of Existing 710 Zone Water Line
-  Existing 980 Zone Water Line
-  Proposed 980 Zone Water Line*

*Design & sizing of system subject to engineering refinement.

SOURCE: Cinti & Associates, 1989.

Domestic Water Plan

**FIGURE
4-7**



- Existing 20" Pipeline
- Proposed Pipeline* (private)
- Proposed Pipeline* (public)

*Design and sizing of system subject to engineering refinement.

NOTE: Golf Course design is conceptual.



SOURCE: Cinti & Associates, 1989

capacity is reached. When this capacity is reached, the second pump at the 980'-Zone pump station would be activated (Arroyo 1986). Additional facilities, as discussed below, would eventually be required to accommodate growth beyond the capacity of existing infrastructure.

The construction of the 2 mg Reservoir 22-4 would require expansion of the Central pump station's capacity to provide water to the 980'-Zone Reservoir from the aqueduct. This would increase water storage within the 980'-Zone, which would primarily serve EastLake Greens. No significant impacts would be created upon implementation of the proposed project as long as water facility construction coincides with the anticipated growth.

Table 4-6
EASTLAKE GREENS
DOMESTIC WATER DEMAND

Land Use	Units	Demand Factor	Demand (mgd)
Residential	9113 persons	189 gal/capita	1.64
Village Center	47.4 ac	2600 gal/ac	<u>0.13</u>
			1.77 mgd

EastLake Greens lies within the boundary of the Otay Water District, but is not in an improvement district. To obtain water service, it will be necessary to annex the territory to be served to Improvement District No. 22 (ID-22). An agreement between EastLake Development Company and two other major developers has been approved by the OWD Board of Directors. This agreement will provide financing for the construction of the 50 MG reservoir. This is considered to be terminal storage and will provide a minimum of five average days of storage.

The OWD Board of Directors has directed that Staff should plan for a minimum of 10 average days of terminal storage. It has been proposed to build a 50 MG reservoir near the existing Central Area facilities as part of the District's continuing efforts in meeting the Board's objectives. As noted above, two sites have been identified for this proposed 50 MG reservoir. The District has retained consultants to provide a preliminary soils and environmental evaluation for these two sites. Preliminary conclusions for the construction appear to indicate that both sites are adequate for the construction of a 50 MG reservoir, and it appears that the EastLake site will be considered as the primary site of the construction of the first 50 MG reservoir.

The applicant has proposed to utilize reclaimed water for irrigation in order to reduce onsite domestic water consumption. In Table 4-7, the estimated reclaimed water requirement is 554 acre-feet per year or 0.50 mgd. The Otay Water District estimates it will be able to supply approximately 1.3 mgd from the Jamacha Wastewater Reclamation Plant, thus presenting no problems in meeting the projected reclaimed water demands (Decker 1987). The pipeline extending from the Jamacha Wastewater Treatment Plant would be 20" in diameter and would have a 6 to 7 mgd capacity to accommodate any future reclaimed water

uses in development areas east of EastLake Greens. The Otay Water District has applied for a Permit for Discharge and Use of Reclaimed Wastewater from the Regional Water Quality Control Board. The Jamacha Wastewater Reclamation Plant is treating its reclaimed water at the tertiary treatment level and has been approved by the RWQCB to discharge during grading procedures for EastLake Greens construction.

In addition to the use of reclaimed water onsite, other water conservation measures are presented in the SPA Plan. These include the maintenance of minimum water pressure levels within residential units, the incorporation of drought tolerant and naturalized landscaping, and the implementation of attached housing designed with common landscaping to reduce irrigation requirements. Water conservation measures such as low flow and water efficient plumbing as required by law would also be incorporated into the project design.

Table 4-7

EASTLAKE GREENS RECLAIMED WATER DEMANDS

EastLake Greens	Acres	Flow Coefficient	Demand (AFY)
OS-6 & 7	10.8	2.0 feet/yr	22
Golf Course Turf	130.0	3.5 feet/yr	455
Golf Course Slopes	30.6	2.5 feet/yr	77
		Total Greens	554 ac-ft/yr 0.50 mgd
Other EastLake Areas			
Employment park	9.0	3.0 feet/yr	27
		Total Other	27 ac-ft/yr 0.024 mgd

Source:

A will-serve letter from the Otay Water District is available on file at the City of Chula Vista Planning Department, thereby meeting the City of Chula Vista's threshold requirement.

EastLake Trails

Buildout of the EastLake Trails site according to the project's proposed land uses and the General Plan Update could result in an overall increase in water consumption for the project site compared to the existing land uses under the County of San Diego General Plan. Development of the annexation area would increase the burden to water services; the annexation itself, however, would not create a significant adverse impact on water availability.

Based on water consumption rates and land use allocations provided in Table 4-8, EastLake Trails at full buildout of the proposed land uses would require approximately 0.87 mgd of

water. This figure is based on total acreages to be irrigated and does not account for structures or nonirrigated areas and is therefore higher than would be expected.

The EastLake Trails site will be serviced by the Otay Water District through the 980' zone water line. Service can be provided either off of the existing line located in Telegraph Canyon Road or from the proposed line in Hunte Parkway for the EastLake Greens SPA Plan. To completely assess the effect that buildout of the annexation area would have on the existing water system, a water study would need to be conducted.

Table 4-8

**EASTLAKE TRAILS
DOMESTIC WATER DEMAND**

Land Use	Units	Demand Factor	Demand (mgd)
Residential	3,547 persons	180 gal/capita	0.64
Retail	15.0 acres	2,799 gal/ac	0.04
Parks*	67.6 acres	3 feet/year	0.18
Public/Quasi Public	16.5 acres	2.5 feet/year	<u>0.037</u>
			0.90 mgd

* The figures for parks and public/quasi-public are for the total acreage and do not account for structures or non-irrigated areas.

Mitigation Measures

EastLake Greens

Adequate water storage and distribution facilities are to be constructed in conjunction with EastLake Greens development; no impacts to existing water facilities would result and no further mitigation is required. Applicant contributions for the proposed improvements would, however, be required. The proposed project would incrementally increase regional water consumption; this impact was considered when the initial EastLake project was conceptually approved in 1982. The incorporation of low flow and water-efficient plumbing into the design, as required by state law, will further reduce the consumption of water onsite. No significant impacts to water availability are anticipated.

In addition to the water conservation measures included in the SPA Plan and required by state law, automatic moisture-sensing irrigation systems could be incorporated into the project design.

Reclaimed water is proposed for use throughout the project, including irrigation. Regional Water Quality Control Board requirements will be met.

EastLake Trails

Impact to water service cannot be determined until the specifics of an on-site water master plan is developed, which will be included within the future SPA Plan for the area. A water study will need to be conducted upon development of the EastLake Trails SPA Plan. Mitigation measures would be established at that time to address any impacts identified from the study.

Analysis of Significance

The proposed project would incrementally increase regional water consumption; this increase was anticipated and planned for. Conservation measures have been incorporated into the project design. Project development and annexation would represent an adverse though nonsignificant impact on water availability.

4.3.2 Sewer Services

Existing Services

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 Otay Lakes Road, along the north portion of the site.

The City of Chula Vista holds rights to 19.1 mgd capacity of the San Diego Metropolitan Sewerage System (Metro) and currently generates approximately 11.5 to 12.0 mgd, allowing 7.1 mgd for future development in the City of Chula Vista. The Metro system treats its sewage at the Point Loma Sewage Treatment Plant, which is currently operating at 185 mgd capacity (average dry weather flow), with a peak flow of 240 mgd (McC Campbell 1988).

The City of Chula Vista threshold standard requires that all new developments be consistent with the Sewer Master Plan and City Engineering Standards, and that sewage flows and volumes do not exceed these standards.

Impacts

EastLake Greens

Based on the sewage generation rates contained within the EastLake Greens SPA Plan, an average sewage flow of 0.96 mgd would be generated. The City of Chula Vista Engineering Department's estimate differs from this number. The department assumes an average of 3.5 residents per equivalent dwelling unit (instead of SANDAG's 2.67); full buildout of the project would then result in 12,632 residents and, according to the department's assumption, 1.16 mgd of sewage. For the purpose of this analysis, the Engineering Department's generation rate of 3.5 residents per equivalent dwelling unit is used to ensure adequate assessment of infrastructure according to the department's standards. These rates are shown in Table 4-9 by land use. A number of onsite improvements are proposed to transport project-generated waste into the Metro System via City of Chula Vista sewage facilities and as shown on Figure 4-9. These onsite facilities have been designed to accommodate estimated peak flow (2.15 mgd) from the project.

The majority of the EastLake Greens site would be served by the existing 15-inch trunk sewer at Telegraph Canyon Road (see Figure 4-9 for the proposed onsite wastewater system). One parcel, R-9, in the southwest corner of the project area drains naturally to

Poggi Canyon down Orange Avenue. This parcel would be pumped on an interim basis to the Salt Creek Basin on the southeastern portion of EastLake Greens. The pump would be abandoned when an offsite trunk sewer is extended up Orange Avenue.

Table 4-9

**AVERAGE WASTEWATER FLOW
FOR EASTLAKE GREENS SPA**

Land Use	Units	Flow Coefficient	Flow (mgd)
Residential	9,113 persons*	80 gpcpd	1.01
Public/quasi-public	31 acres	1500 gpacpd	0.42
Village Center	47.4 acres	2500 gpacpd	0.049
High School	2400 students	20 gpspd	0.048
Elementary School	800 students	15 gpspd	<u>0.009</u>
Total Daily Flow			0.96 mgd

Source: Cinti & Associates 1989.

* Based on 3.5 persons/equivalent dwelling unit (City of Chula Vista Engineering Department 1989).

gpspd = gallons per student per day
 gpcpd = gallons per capita per day
 gpacpd = gallons per acre per day

The rest of the EastLake Greens site drains naturally to Salt Creek and has three alternatives for sewer service. The first option is to build an onsite water reclamation plant in the Salt Creek basin, in the southeast portion of the project site. The reclaimed water could be pumped up to the proposed golf course and other areas such as parks, schools and slope landscaping for re-use in irrigation. Total estimated cost of the reclamation plant would be approximately 3 million dollars, and it would be operated by the Otay Water District. A second option would be to construct an offsite sewer line south down Salt Creek and east to the Otay River Valley where the line would run west in the Otay River Valley to the City's existing collection system. The third alternative is to pump to the Telegraph Canyon basin and make improvements downstream to accommodate the additional flows. In the case of the two offsite sewer lines, EastLake Greens would share the cost of the improvements with future developments that would utilize the same basin. The specific location and capacity of the Salt Creek sewer has not yet been determined. Further environmental review would be required to address potential constraints associated with the proposed on- and offsite improvements.

An additional interim pump station proposed at Hunte Parkway and Telegraph Canyon Road would allow the development of the first phase of EastLake Greens, deferring the need for an offsite sewer down Salt Creek or an onsite water reclamation plant until the later phases of the development. 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.

Wilson Engineering (1989a, 1989b) analyzed the available capacity in the Telegraph Canyon sewer facilities, and ran four computer runs to determine the system's capacity to handle projected peak flows from a variety of combinations of projects, including EastLake Greens. The information below is derived from one of those reports (Wilson 1989a).

- The first computer run included existing flows plus EastLake Business Center and Salt Creek I flows. The results indicate that all reaches would flow below design capacity.
- The second computer run included existing flows plus EastLake Business Center, EastLake Greens, and Salt Creek I flows. In this analysis, one 18-inch diameter pipe segment flows at 76 percent of depth. This is just over the design capacity of 75 percent of depth for this size pipe. All other reaches are below design capacity. This analysis shows adequate capacity for the inputted flows.
- The third computer run included all the flows for Run #2 plus the entire sewage flow estimated for Salt Creek Ranch. This analysis showed four reaches that would be flowing over full pipe capacity. An additional nine reaches would flow above design capacity. This flow scenario, therefore, would require some upgrading of the Telegraph Canyon Trunk Sewer.
- The final computer run analyzed only the flows generated within the Telegraph Canyon Basin. Salt Creek I was excluded, only a small portion of Salt Creek Ranch was included, and the EastLake Business Center and EastLake Greens were included. The analysis concluded that there is sufficient capacity in the Telegraph Canyon Trunk Sewer for ultimate flow from within the Telegraph Canyon Basin from those properties in the basin. Note that sewage generated in portions of the Telegraph Canyon Basin within the Otay Ranch have not been included.

Table 4-10 provides a summary of the computer model analyses performed and the results obtained.

Development of EastLake Greens would incrementally reduce the unused future capacity at the Point Loma Treatment Plant. Because of the large area served by the system and the comparatively small increase generated by EastLake Greens, implementation of the project would not represent a significant impact on the volume or the quality of effluent produced by the plant. The use of reclaimed water onsite will also reduce the amount of sewage effluent from the site.

Sewage disposal facilities and sewage pump stations for EastLake Greens will be designed to meet the City Engineering Standards and therefore the sewage threshold requirements determined by the City of Chula Vista will not be exceeded.

EastLake Trails

Buildout of the annexation area under the City of Chula Vista's General Plan Update could result in an overall increase in sewage generated from the project site over buildout under

the existing County of San Diego General Plan. Sewage generation from the annexation of EastLake Trails under the City's land use designations is not considered significant by itself and would not create a significant adverse impact on sewer capacity availability. Development of EastLake Trails would, however, increase the burden to sewer services.

At full buildout of the EastLake Trails, 0.413 mgd of sewage will be produced. For the purpose of this analysis, the Engineering Department generation rate of 3.5 residents per equivalent dwelling unit will be used to ensure adequate assessment of infrastructure according to the department's standards. These rates are given below in Table 4-11.

Table 4-10

SUMMARY OF COMPUTER ANALYSES AND RESULTS

Telegraph Canyon Trunk Sewer	Computer Run #1	Computer Run #2	Computer Run #3	Computer Run #4
Existing Flow	Yes	Yes	Yes	Yes
EastLake Business Center	Yes	Yes	Yes	Yes
EastLake Greens	No	Yes	Yes	Yes
Salt Creek I	Yes	Yes	Yes	No
Salt Creek Ranch	No	No	Yes	Only Telegraph Basin Flow
Reaches Above Design Capacity	0	1	13	2
Reaches Above Full Pipe Capacity	0	0	4	0

Source: Wilson 1989a.

The City of Chula Vista's sewer facilities have been designed to service the existing zoning densities within the City boundaries. No studies have been conducted to address the provision of sewer services to the proposed EastLake Trails annexation area. Upon annexation, the City would supply services to the area; the impact on the sewer department in providing these services cannot be determined at this time. A water and sewer study would need to be conducted by the City during the preparation of the future SPA Plan to assess the effect that buildout of the annexation area would have on the existing water and

sewer system. The sewer study should address the ability of existing facilities to accept additional flow both in the interim and ultimately; should evaluate funding and site availability for the new facilities; should address the amounts of proposed flow diversions and proposals for their ultimate resolution; and should evaluate the impact of proposed diversion on properties that are naturally tributary to the Telegraph Canyon system.

Table 4-11

**AVERAGE WASTEWATER FLOW
FOR BUILDOUT OF EASTLAKE TRAILS**

Land Use	Units	Flow Coefficient	Flow (mgd)
Residential	4410 persons*	80 gpcpd	0.35
Retail	15.0 acres	2500 gpacpd	0.038
Public/Quasi-Public	16.5 acres	1500 gpacpd	<u>0.025</u>
			0.413

*Based on 3.5 persons/equivalent dwelling unit (City of Chula Vista Engineering Department 1989).

gpcpd = gallons per capita per day

gpacpd = gallons per acre per day

Mitigation Measures

EastLake Greens

Provision of sewer service during the initial phases of the EastLake Greens project would not result in significant impacts because there is temporary capacity within the Telegraph Canyon trunk sewer. Mitigation of this impact would require the development of additional facilities which would be funded by EastLake developers and the other development as appropriate. If the proposed Otay River Valley facilities are constructed with excess capacity, sewage from additional development may be diverted away from the Telegraph Canyon lines thereby reducing potential impacts; however, this cannot be determined at this time. In addition, when other developments in the vicinity of EastLake Greens are allocated use of the line, EastLake Greens would be required to participate in the upgrade and construction of lines to dispose of the excess sewage. The proposed new trunk sewer would serve the Poggi Canyon and Salt Creek tributary areas. The construction of this facility and EastLake Greens' level of participation in its cost is contingent upon the timing of new developments that would share the costs of extending lines.

EastLake Development Company is negotiating a sewage monitoring agreement with the City of Chula Vista. Monitoring will be conducted to ensure that the capacity of the existing 15-inch sewer trunk line in Telegraph Canyon Road is not exceeded prior to the creation of alternative means of transporting such sewage.

EastLake Trails

A water and sewer study must be conducted concurrent with the development of the SPA Plan for the EastLake Trails project. Mitigation measures will be established at that time to address any potential impacts identified during the study.

Analysis of Significance

Development of the EastLake Greens and Trails projects would present significant impacts because of lack of existing capacity. Construction of additional sewage facilities will mitigate this project-specific impact. However, combined with similar projects within the vicinity, a potentially significant impact may occur upon the City of Chula Vista's sewer infrastructure. This can be mitigated through the construction of additional facilities; the cost of these facilities would be shared by the developments that would use them according to each development's demands.

4.3.3 Educational Facilities

Existing Conditions

The project site is undeveloped and hence does not generate a demand for educational facilities. The site is located within the jurisdiction of two school districts: Sweetwater Union High School District and Chula Vista Elementary School District.

During the 1985/86 school year, the Chula Vista City School District was operating at capacity with 13,821 students enrolled. Current enrollments have not been determined; the enrollment for the 1988/89 school year is projected to be 16,300 students. The District provides education to grades kindergarten through six. The closest elementary schools to the project site include Tiffany, Sunnyside, Allen, and Rogers elementary schools. Chula Vista Hills Elementary School, north of Southwestern College was recently opened in January 1989. The current enrollment at this new school, since January, is 329 students. One elementary school site has been provided in the EastLake Hills neighborhood, north of East "H" Street in EastLake I. This school is expected to be in operation in mid to late 1989.

The Sweetwater District, which provides education to grades 7 through 12, is operating at approximately 110 percent capacity with an enrollment of 26,285 students (Allen 1988). The closest secondary schools to the project site are Bonita Vista and Hilltop Junior High and High Schools, located on Otay Lakes Road approximately 2 miles northwest of the project site. Each school within the district has specific boundaries which determine the eligibility for attendance of all students. According to the Sweetwater School District, there is no guarantee that a student will attend the school or that the boundaries will not be adjusted to accommodate school housing needs (Kroese 1986).

The City of Chula Vista threshold standard requires that both school districts be provided with development forecasts so that school construction can be anticipated and built to supply capacity concurrently with growth.

Impacts

EastLake Greens

The project applicant for EastLake Greens has entered into an agreement with the Sweetwater Union High School District and the Chula Vista Elementary School District.

This agreement ensures that the Mello-Roos Community Facilities Districts formed by those respective school districts are in full satisfaction of any school requirements and can fully mitigate the project's impact upon the districts.

The Mello-Roos Community Facilities Act of 1982 authorized the establishment of community facilities districts for the purpose of acquiring or constructing public facilities. The districts may issue bonds and levy special taxes to finance the construction or acquisition of any public facility that has otherwise been authorized for construction or acquisition. Developers are required by state legislation to finance school facilities. The developer's decision to utilize Mello-Roos to finance school construction, in lieu of the fee payment, would help mitigate the development's impacts on schools. Currently, a Mello-Roos District has been set up for the construction of the EastLake high school, a potential junior high school, and four new elementary schools in the EastLake vicinity.

The Chula Vista School District originally used an average of 0.4 elementary students per dwelling unit as its student generation factor. Recently, however, this factor has not accurately predicted demand, and at this time no generation factor is available (Allen 1988). For the purpose of this analysis 0.4 students per dwelling unit will be used with the assumption that this number is considered low. Although the generation rate utilized for the Mello-Roos district that funds the improvements was 0.27 students per dwelling unit. Full buildout of EastLake Greens would result in 3609 dwelling units generating approximately 1400 to 1500 students. Phasing of the development would result in incremental generation rates. Based on these projections, approximately one and one-half more schools would be needed to house the new students.

The EastLake Elementary School (EastLake I) is scheduled to open in fall 1989. Within the EastLake Greens area, a 10.0-acre site, parcel S-2, has been reserved near the central portion of the project area, and, because financing has been established, construction of a second school would begin when the EastLake I school reaches an enrollment of 900 (estimated to occur in the mid-1990s).

A third elementary school would be justified once the enrollment reaches 900 students at the EastLake Greens School. It is probable that enrollment will reach 900 students because the second school will also serve the students generated by the EastLake I development. This third school is being planned within the EastLake Trails project.

Elementary schools must be developed in accordance with need. If schools are not built onsite or according to the above-mentioned time frame, a significant impact would be incurred on the existing facilities within the District. This however, would represent only a short-term impact if additional elementary schools are developed onsite. If facilities are built concurrently with housing, the impact would be reduced to below a level of significance.

For secondary schools, the student generation rate is 0.29 students per dwelling unit for both junior high schools and senior high schools; buildout of the EastLake Greens development will produce approximately 1046 junior and senior high school students (Silva 1988). The schools primarily responsible for housing the new students would be Bonita Vista Junior High and High School. Both are already crowded and operating over their capacities.

EastLake Greens has reserved a 49.2-acre site along EastLake Parkway to develop a new high school to serve students generated by EastLake and neighboring projects. It is under construction and scheduled to open in fall 1991.

In the future, the Sweetwater Union High School District will have to study the alternatives available for satisfying the regional educational facility need. The EastLake Greens project would be phased over a period of time; if construction of the new high school remains on schedule with development, the adverse effects would be short-term. The cumulative effect of this and other similar developments could cause overcrowding at District schools before the completion of the high school, resulting in a potentially significant impact to the Sweetwater Union High School District.

To anticipate school facility needs and to lower the level of impacts growth may have on school facilities, the City of Chula Vista will annually provide the two local school districts with a development forecast.

EastLake Trails

Based on a generation rate for elementary school students of 0.4 students per dwelling unit, 504 students would be generated at buildout of the EastLake Trails area. No elementary school sites are designated by the EastLake Trails prezone although a 16.5 acre public/quasi-public parcel is planned for a school site. When capacity of these schools is reached an additional elementary school would be required. The buildout of the EastLake Trails area has the potential for adversely affecting the Chula Vista Elementary School District; annexation in itself would not create a significant impact to school facilities. Upon development of the area, however, further review should be conducted to further assess demands.

Both Sweetwater Union High School District and Chula Vista City School District have adopted Mello-Roos financing districts covering the entire property to assure the construction and financing of schools within the EastLake community. A total of four elementary schools, one high school and one junior high school have been financially guaranteed for the project to accommodate the capacity anticipated by the Districts.

It is anticipated that at full buildout of the EastLake Trails area 365 secondary school students would be generated based on a generation rate of 0.29. No high school site is currently designated within the EastLake Trails area. It is anticipated that these older students would attend the nearby Bonita Vista Junior High and the high school under construction within the EastLake Greens development. Upon reaching capacity at these facilities a new high school would be needed. Annexation of the EastLake Trails property would not create a significant impact to secondary school facilities but may require further CEQA review upon development.

If the school districts coordinate construction of elementary, junior high, and high schools proposed for the area (EastLake I and EastLake Greens) with development of the annexation area as well as other developments in the area, then future enrollment would meet capacity design, and no significant adverse impacts would be anticipated. If buildout of the annexation area and resulting students precede the proposed schools, then a significant, short-term adverse impact would be created.

Mitigation Measures

It would be necessary to provide at least one elementary school and one high school within the EastLake Greens project area. On a short-term basis, development of the EastLake Greens project would potentially create an adverse effect on both elementary and secondary school districts in the area. If school construction is phased concurrently with residential development, the impacts would be mitigated to insignificance. In addition, the use of temporary or portable facilities to expand capacity, as in the case of Tiffany Elementary

School, would alleviate the impact of the additional students within District schools until long-term facilities may be built. On the long-term, the proposed EastLake Greens elementary and high schools and EastLake Trails elementary school should be constructed upon project implementation, permanently expanding the school districts' capacities and abilities to accommodate these additional students. To fund these and other required facilities, the entire EastLake development has entered into a Mello-Roos agreement with the Sweetwater School district to mitigate any potential impacts associated with school facilities.

Analysis of Significance

If the required elementary and high schools are not provided in conjunction with EastLake Greens and with the ultimate development of EastLake Trails, the effect of this project constitutes an incremental significant impact. However, because the required facilities are currently in the planning phase with the school districts, funding through a Mello-Roos district has been secured. Assuming development schedules remain the same, no significant impact on school facilities is expected to result from implementation of the EastLake Greens and Trails projects.

4.3.4 Police Protection

Existing Conditions

The project site is served by the Chula Vista Police Department. The project is within the jurisdiction of Beat 32 which is manned by one patrol car 24 hours a day. Police response usually comes from mobile units in the field and average response time within Beat 32 is 6 minutes for priority calls and 30 minutes for routine calls (Kohls 1986). (Optimum response times are normally considered to be a minimum of 5 minutes for priority calls and 20 minutes for routine calls.) Beat 28 patrols the area north of East H Street and, should the need arise, would assist Beat 32 within its jurisdiction. The department currently operates at a service level of just less than 1 policeman per 1000 residents but anticipates an increase to 1.2 policemen per 1000 residents upon implementation of the EastLake Greens project.

It is the objective of the City of Chula Vista to ensure that the police staff, equipment, and training levels are adequate to provide police service at a desired level throughout Chula Vista (Chula Vista 1987).

Impacts

Increased calls associated with project implementation would place additional demands on the single patrol car serving Beat 32. In addition, current response times are slower than what is considered optimum. The additional development associated with project implementation would place additional demands on an undermanned police beat and would result in an adverse impact.

The EastLake Greens project-generated population, approximately 9636 persons at maximum buildout of EastLake Greens, would increase the need for police service in this portion of the City. To achieve an anticipated officer-to-population ratio of 1.2 officers for every 1000 residents, an additional 11 officers would be needed. The EastLake Trails project-generated population at full buildout, approximately 3364 persons, would result in the need of 4 additional officers. Annexation of the EastLake Trails area would not create an impact on police services because development is not proposed a part of this action. The process of annexation would allow the formal incorporation of the site into the City Police

protection area; this extension of the protection area will ultimately produce an adverse impact on police services which will be evaluated upon future review of the EastLake Trails SPA Plan. Annexation of the EastLake Trails site may benefit the police department in that increased tax revenues generated through property taxes would become available. An increase of traffic on roadways in the vicinity of both projects would also create additional demands for police services. Plans are in the process to increase police and service level to residents in this area of the City as it develops and as the service area continues to grow. In addition, within the EastLake I Village Center a police staff room is planned which would also serve EastLake Greens and Trails.

The City of Chula Vista's threshold standard for police service requires a response time of 5 minutes for emergency calls for 75 percent of the cases. If the GMOC determines that this standard is not being met then a building moratorium may occur. Increased numbers of police personnel serving the area should adequately meet this standard.

The Chula Vista Police Department receives funding from the City of Chula Vista General Fund, and the Police Department funding requirements would be mitigated by the project's contributions to the City of Chula Vista General Fund.

Mitigation Measures

Provision of additional police personnel is underway for the Police Department in Chula Vista. The addition of officers to the Department would alleviate future development impacts to service availability. In addition, project-generated revenues to the City could be utilized to upgrade the staffing and facilities of the Police Department.

Analysis of Significance

An increased demand for police services in a service area currently operating below the optimum response time and at an over-taxed service level could result in a significant adverse impact as a result of project implementation. Additional police staff is anticipated to be added in response to new development with funds generated by EastLake Greens (and ultimately EastLake Trails) and other similar developments and with the development of the police staff room within the EastLake I Village Center, the impacts to police services would be mitigated to below a level of significance.

4.3.5 Fire Protection

Existing Conditions

The project site is within the jurisdiction of the Chula Vista Fire Department. The City of Chula Vista has developed threshold objectives to ensure that fire and emergency medical staff are properly equipped, trained, and funded to provide the desired level of service throughout Chula Vista (Chula Vista 1987). The project area is closest to Fire Station #4, located on Otay Lakes Road near Southwestern College. Fire Station #4 consists of one company staffed with three firefighters and operates at a response time of 5 to 8 minutes to the project site and vicinity. The threshold standard of the City of Chula Vista requires an emergency response time of 7.5 minutes 85 percent of the time (measured annually), and this response time is considered acceptable. This station does not include paramedic service; the firefighters are, however, certified Emergency Medical Technicians (EMTs) capable of administering first aid. Emergency transport service is provided by Hartson's, a private ambulance company.

Impacts

Upon completion of EastLake Greens and Trails, a resident population of 9,636 persons and 3,364 persons, respectively, is anticipated. Development would necessitate expansion of Chula Vista Fire Department facilities to serve the increased population. The draft Fire Station Master Plan (1989) recommends building new Chula Vista fire stations in the El Rancho del Rey development and in the vicinity of East H Street and proposed SR-125. Under this proposed network, the City's current Fire Station #4 (on Otay Lakes Road between East H Street and Telegraph Canyon Road) would then be closed.

Water pressure on the EastLake Greens site is adequate for fire protection. The Fire Department will likely be required to use pressure reduction valves or pressure reducers to provide safe water pressures and water flows. Meetings have been held between the Otay Water District and the City Fire Department to discuss this requirement, and the needs of the Fire Department will be met. No extreme roadway gradients are proposed onsite, and standard equipment would be adequate when providing fire protection to the project area. Upon development of the SPA Plan for EastLake Trails, any water pressure and water facility concerns on that property should be resolved between the Otay Water District and Chula Vista Fire Department to reduce any potential impacts to fire protection services.

Mitigation Measures

Funding should be provided by the EastLake Greens and Trails project applicant either in the form of new equipment and personnel or of entire stations on or within the vicinity of the project area. The City of Chula Vista has determined impact fees from the developer to insure the construction of fire station facilities. Impact fees paid by the applicant would offset the adverse effect of increasing the requirements for service equipment related to this project.

Expansion of Fire Department facilities are being planned. Station #4 will be relocated farther east and into the EastLake area in 4 to 5 years, dependent upon timing of the EastLake development and the status of the station's response time from its present location. To compensate for the relocation of Station #4, a new station is planned to be located on East H Street between the present location of Station #4 and Interstate 805. In addition, two other fire stations are proposed in the vicinity, one along Corral Canyon Road to the northwest of the project site and another in the Bonita/Sunnyside area of San Diego County. The City of Chula Vista proposes to assume the cost of building this station because annexation of this area to the City is expected in the near future. With the addition of these proposed fire-protection facilities, impacts to fire-protection services in the vicinity of the project site are not anticipated.

Adequate water pressure should be provided to meet the City's fire flow and pressure requirements through the installation of pressure reduction valves either onsite or on the fire trucks, thereby eliminating the potential for fire flow and pressure-related adverse impacts to fire services.

Analysis of Significance

The proposed EastLake Greens and Trails projects will create increased demands for fire-protection service by the Chula Vista Fire Department. With a contribution by the applicant to the expansion of facilities, including the relocation of Station #4 toward the project area or EastLake I area and the provision of a new station on East H Street, increased demands for fire protection will be met. In addition, the installation of pressure reduction valves

within the water system or on the fire trucks would eliminate the adverse impact associated with increased water pressure.

4.3.6 Parks and Recreation Facilities

Existing Conditions

New development is required to provide public parkland, improved to city standards, and dedicated to the City, based on established standards (Section 17.10.040 of the Chula Vista Municipal Code). The Chula Vista General Plan Parks and Recreation Element 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 proximity to those areas they are designed to serve. Because regional park needs are met outside the City, Chula Vista is concerned primarily with the development of community and neighborhood parks. The standards established in the Parks and Recreation Element and the Threshold/Standard Policy for neighborhood and community parks are outlined in Table 4-12.

Table 4-12

EASTLAKE GREENS SPA PARKLAND DEDICATION STANDARDS

Dwelling Unit Type	Park* Dedication Per Unit	Dwelling Units* Per Park Acre
Single-family	423 sf/du	103 du/ac
Condominiums	366 sf/du	119 du/ac
Duplexes	325 sf/du	134 du/ac
Multiple-family	288 sf/du	151 du/ac
Mobile Homes	215 sf/du	203 du/ac

Source: Cinti and Associates 1989

* These requirements apply to both neighborhood and community parklands.

Impacts

EastLake Greens

Based upon the parkland dedication standards, the following requirements will apply to EastLake Greens SPA:

<u>Number of Units</u>	<u>Type of Unit</u>	<u>Park Area/DU</u>	<u>Total Park Acres</u>
1277	Single Family	423 sf/du	12.40
1380	Attached/PUD	325 sf/du	11.60
501	Duplex	366 sf/du	3.74
451	Multi-Family	288 sf/du	2.98
3609 du			

Total required parkland dedication: 30.72 ac of parkland

The total area of park land proposed for EastLake Greens SPA:

<u>Parcel</u>	<u>Park Type</u>	<u>Acres</u>	<u>Percent Credit</u>	<u>Acres</u>
P-1	Community Park	15.1	100%	15.10
P-2	Neighborhood Park	3.0	50%	1.50
P-3	Neighborhood Park	11.0	100%	11.0
P-4	Neighborhood Park	4.5	50%	2.25
P-5	Neighborhood Park	3.0	50%	1.50
	Golf Course Trail	4.0	100%	4.00
	Golf Course	157.4	5%	7.87
	Credit from EastLake I			.33
			Total Credit	43.55 ac

EastLake Greens Parkland credit surplus (deficit):

Parkland credit	43.55 ac
Parkland requirement	30.72 ac
Surplus parkland average	12.83 ac

Source: Cinti & Associates 1989

Based on the City of Chula Vista's park standards and threshold requirements, the projected EastLake Greens population of 9636 will require approximately 30.72 acres of parkland onsite.

Four neighborhood parks and one community park are proposed for development within EastLake Greens. The neighborhood parks would comprise a total of 21.5 acres and be located in parcels P-2, P-3, P-4, and P-5. Parcel P-3 is located adjacent to the proposed elementary school. The community park proposed would encompass 15.1 acres of land (see Figure 2-7). It would be located adjacent to the parcel reserved for the new high school, in the western portion of the project area, and would be utilized by physical education classes at the school and would utilize school facilities for the community.

A trail system is proposed within the EastLake Greens development. The Community Trail would provide a connection between the Village Center, High School, community park, and country club. It also would extend north into EastLake I and east into EastLake Trails. Pedestrian walks would provide an alternate route within the EastLake Greens neighborhood. In addition, onstreet bike paths are proposed throughout the development to supplement the vehicular circulation system. An 18-hole, 160.6-acre golf course and country club is proposed to be incorporated into the development. A golf course trail would connect the club house to the northern neighborhood park, through the golf course. Figure 2-8 illustrates the proposed trail routes.

All of the open space and private and public parks will be controlled through open space easements and/or dedication to the City of Chula Vista. Maintenance of the public community park will be provided by the City. Access controls and maintenance of the golf course and club house facilities will be the responsibility of the operator and will be independent of the homeowner's association. Maintenance of private parks will be provided by the home owner associations or an open space maintenance district. The proposed development of EastLake Greens is in conformance with the City of Chula

Vista's Park Standards. No significant impacts to the Chula Vista park system is expected to occur with implementation of the proposed EastLake Greens Project.

EastLake Trails

The proposed rezoning for the EastLake Trails area of the project site designates approximately 70.1 acres for park and recreational uses. The majority of this acreage is located within and adjacent to Salt Creek. Two additional parks would be located within the development, one adjacent to a potential school site in the central portion of the EastLake Trails area and one in the Salt Creek area. The City of Chula Vista Draft General Plan Update designates these two neighborhood parks, each up to 15 acres in size, within the EastLake Trails area and an open space area within Salt Creek.

The proposed rezoning of the EastLake Trails area is in conformance with the City of Chula Vista General Plan Update and the annexation of this area would not create a significant impact to parkland.

Mitigation Measures

No impacts to parks would occur with implementation of the EastLake Greens property nor with annexation and rezoning of the EastLake Trails property, and therefore no mitigation measures are required.

Analysis of Significance

The proposed EastLake Greens development would increase the demand for additional parkland in the area. The dedication of the proposed acreage in the SPA Plan avoids any potential impacts to parkland.

Annexation and rezoning of the EastLake Trails area would not create any impacts to park and recreation facilities. At such time that additional plans are proposed for development of the annexation area, additional CEQA review will be required to further assess potential impacts.

4.3.7 Library Services

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 190,000 volumes and circulates 989,148 books per year. The library averages 60,000 patrons per month. In terms of the number of books and patrons served, the library is currently operating at capacity (Blue 1988).

In addition to the central library, the City of Chula Vista pays the County of San Diego to operate two libraries in the area. The libraries are branches located south of Chula Vista in the Montgomery area (annexed in January 1986 to the City). Castle Park Library is located at 1592 Third Avenue, and Woodlawn Park Library is located at 115 Spruce Road. The two branches contain a total of approximately 14,000 volumes, with approximately 45,216 books circulated from Castle Park and 5,906 books circulated from Woodlawn for the 1987/88 fiscal year. Both branches were operating below capacity since the County has a circulation system which includes other county branches.

The Bonita-Sunnyside County Library, located at 5047 Central Avenue in Bonita, is also within the project vicinity. This branch carries approximately 17,000 volumes and circulate approximately 53,896 books during the 1987/88 fiscal year. Once again, the facility is supported by the entire County Library system, thus creating no capacity problems.

The City of Chula Vista's Library threshold objective is to provide supplemental branch library facilities in the Montgomery/Otay area and in the area east of I-805. A draft Library Master Plan (December 1986) has been prepared for the Chula Vista Public Library System identifying the future facilities required as a result of growth in Chula Vista. Chula Vista will need approximately 123,700 square feet of new public library space by the year 2010, based on population estimates. The recommendations contained within the Master Plan state that three full-service facilities would be required to serve the central Chula Vista/Bayfront area, the Montgomery/Otay area, and the Sweetwater/Bonita area, and should be in place by 1995 at the latest. A leased storefront or portable facility will be needed in the eastern Chula Vista area by the year 2000. The Bonita-Sunnyside Branch Library may be annexed by the City of Chula Vista, thus increasing the system's capacity somewhat. Additional facilities, however, will be required.

Impacts

The 9636 residents expected to be generated by the EastLake Greens development would increase the demand on library facilities within the project vicinity, representing a potentially significant impact. The growth anticipated in eastern Chula Vista as a result of EastLake Greens and similar developments will require an expansion of existing facilities as discussed in existing conditions. Smaller branch libraries or a large facility within the project area would increase the system's capacity measurably.

The City of Chula Vista threshold standard requirement for library facilities is 500 square feet of fully staffed and equipped library space per 1,000 population. The Planned Community regulations for EastLake I require that a 1-acre library site near the Village Center be reserved with a stipulation that the library site must be developed within 10 years after dedication (WESTEC 1985). Also, Rancho del Rey SPA I, a recently approved project approximately 1 mile to the west of EastLake, reserves a site for a City library along East "H" Street. Financing would be achieved through a Mello-Roos Community Facilities District, Development Impact Fees, General Funds, Assessment Districts or other community facilities districts. If the site is utilized, it would alleviate the impact on neighboring libraries on a long-term basis. It takes approximately 3 years to plan and construct the type of facility required in the EastLake vicinity (Lane 1986). According to the Director of the Chula Vista Public Library System, the branch will be necessary once 30,000 people are present in the area (Lane 1986), and plans should follow concurrently with residential development.

The draft Library Master Plan for the City of Chula Vista recommends that a leased or portable site will be needed in the EastLake vicinity within the next 3 years. If library facilities are not provided during EastLake I's development, the development of EastLake Greens and annexation of EastLake Trails project combined with EastLake I would represent an adverse, though nonsignificant, short-term impact until library facilities are developed. Because the draft Library Master Plan has pinpointed the needs within the public library system, new facilities are in the planning phase. Therefore, provided land and funding for constructing new facilities is available and construction schedules coincide with new development, the impacts to the Chula Vista Public Library System associated with the EastLake Greens development and the EastLake Trails annexation would be avoided.

Mitigation Measures

The potentially significant impact associated with EastLake Greens and EastLake Trails implementation could be mitigated through the development and construction of the proposed EastLake I library facility mentioned above, provided that construction is within the time frame indicated by the Library Director and the Master Plan.

Analysis of Significance

The potentially adverse, though nonsignificant, impact on library facilities would be eliminated through the development of the EastLake I library facility as indicated in the Planned Community Regulations for EastLake I.

4.3.8 Energy Supply and Conservation

Existing Conditions

There is no natural gas or electrical consumption onsite because the site is undeveloped. Both natural gas and electric service are provided by San Diego Gas & Electric (SDG&E) in the project vicinity. An SDG&E easement has been dedicated on the southwest portion of the parcel, and transmission lines travel in a north-south direction along the 120-foot easement. A gas line exists adjacent to the San Diego County Water Authority's 80-foot right-of-way, parallel to the SDG&E easement. Electricity and natural gas distribution facilities are present near the project site; however, no distribution lines are located onsite. The City of Chula Vista has not developed threshold standards for energy supply and conservation for new developments in the Chula Vista area.

Impacts

Pursuant to rules filed with the Public Utilities Commission, SDG&E would provide natural gas and electricity to the EastLake Greens and Trails project sites. 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 4-13 shows the projected monthly natural gas and electricity consumption at full project buildout. EastLake Greens would generate a monthly requirement of approximately 5,390,590 kWh of electricity and 282,487 therms of natural gas. This does not represent an adverse impact on capacity and supply for SDG&E services at this time. Motor vehicle transportation would also generate an energy requirement. Based on an estimated trip rate of 63,991 average daily trips (Willdan Associates 1989), and average trip lengths and fuel consumption rates contained in the California Air Resources Board URBEMIS computer model for determining air quality emissions, the project would require 358,350 gallons of fuel per month for transportation. Because this type of project is planned for this site by the City, the projected fuel consumption has been anticipated and does not represent a significant increase in future energy consumption.

Although transportation would utilize a major portion of the total energy requirement onsite, this consumption is not projected to be greater than any similar development within the eastern Chula Vista area. The impact to SDG&E expected with project implementation

Table 4-13

PROJECTED NATURAL GAS AND ELECTRICITY CONSUMPTION
FOR EASTLAKE GREENS

Land Use	Generator ¹	Conversion Factor (kWh/mo)	(kWh/mo)	Conversion Factor (Therms/mo)	(Therms/mo)
Residential					
Detached	1,269 du	502	637,038	79	100,251
Attached	2,340 du	254	594,360	46	107,640
Public/Quasi-public	76.3 ac.	41,667	3,179,192	533	40,668
Retail	19.6 ac.	50,000	980,000	1,731	33,928
Open Space/Parks/Circulation		0	0	0	0
		Total Electricity Consumption =	5,390,590 kWh/mo	Total Natural Gas Consumption =	282,487 therms/mo

¹Energy/LA Action Plan, 1983

Source: Cinti and Associates 1989.

concerns extension routes and construction. Street design should facilitate smooth extension of service to the project site.

Mitigation Measures

Although no significant or adverse impacts to energy supply are anticipated as a result of project implementation, and no mitigation is necessary, the Energy Conservation section of the SPA Plan for the proposed EastLake Greens development provides mitigation measures to be implemented as part of the project. They are as follows:

- Install landscaping that provides afternoon shade, reduces glare, encourages summer breezes, discourages winter breezes.
- Construct sufficient overhangs or provide for shading devices on all residential units which would block the summer sun from window areas but allow winter sun.
- Limit outdoor lighting after 10 p.m.
- Locate deciduous trees in yard spaces adjacent to large windows to block summer sun, but allow winter sun.
- Reserve solar access and allow passive energy systems. Incorporate bicycle and pedestrian trails to facilitate non-vehicular travel onsite.

These measures should receive detailed attention and analysis when specific development plans are drawn up for siting, architecture, and landscaping within the community. Additional measures would further lower the energy requirement for the EastLake Greens community, and are contained among the conservation measures below. The level to which consumption could be lowered is contingent on energy costs, energy supply, and energy efficiency of facilities onsite, thus estimates are difficult to make and are not reliable over time. These conservation measures are important in helping to ensure that the development's impact on regional energy consumption is not disproportionately large.

Additional energy conservation measures should be utilized within the project design to further lower the onsite energy requirements. These could include

- Encouraging the use of public transit by providing bus-loading zones at key locations throughout the community.
- Implementing efficient circulation systems with phased traffic control devices.
- Minimizing reflective and heat absorbing landscapes.
- Installing energy efficient appliances and lights in residential and non-residential developments.
- Using appropriate building design and materials to construct energy-efficient structures.

Because continued availability of energy supplies cannot be assured, the project will incorporate the above measures to reduce natural gas and electrical consumption and thus conserve fuel.

Analysis of Significance

Project development would require energy facilities to be extended to serve the project site. Estimated energy demand for the development is similar to that of neighboring developments and would not have any significant impacts. The incorporation of proposed energy-conserving measures into the project design could result in a lower consumption than standard developments.

4.3.9 Other Utilities and Services

The City of Chula Vista has not determined any threshold standards for the utilities and services discussed below.

Solid Waste Disposal

Because the site is undeveloped, there is no current need for solid waste disposal. Future service would be provided by Chula Vista Sanitary Service, which has a franchise for the City of Chula Vista. Based on an average 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 multifamily residences, EastLake Greens would generate approximately 23,648 pounds of refuse per day, while EastLake Trails would generate approximately 8,840 pounds per day. The total project would contribute approximately 32,488 pounds daily. The other land uses proposed, such as commercial and public facilities, will also contribute to the total refuse generated by the project; the amounts cannot be determined because the precise amount and kind of development is not known.

Refuse from the project site would be transported to Otay Sanitary landfill north of Otay Valley Road, 0.5 mile east of I-805. The landfill currently handles approximately 2,071 tons of solid waste each day and full capacity is expected to be reached by 1999 (Cortelyou 1989).

There are future plans to expand the landfill facilities in the southeast county area through the addition of a new landfill site. The specific location of a new landfill is, however, unknown at this time. Project-generated waste would represent a .7 percent increase in the amount of waste currently handled at the landfill; however, the amount of solid waste generated would not represent a significant impact (Cortelyou 1989). It would, however, incrementally decrease the life span of the landfill.

Medical Facilities

The closest medical facilities to EastLake Greens and Trails 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 contains 131 beds. The hospital currently operates at approximately 85 percent of capacity (Ingrande 1988). Vista Hill Psychiatric Hospital contains 58 beds. The Vista Hill 1986 average occupancy rate is 82.3 percent (Maxwell 1988). No adverse effects would occur as a result of project implementation.

Emergency Medical Services

Hartson's Ambulance Service, a private company, would respond to onsite medical emergencies within approximately 10 minutes (Marsh 1986). 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 become more urbanized, Hartson's may need to add additional personnel and facilities to serve eastern Chula Vista. No impacts are foreseen regarding the provision of ambulance service to the site. However, a road map of the EastLake Greens and Trails development would aid Hartson's in efficiently providing service to the project area, and should be provided upon request.

Telephone Service

In accordance with the California Public Utilities Commission regulations, Pacific Bell would provide telephone service to EastLake Greens and Trails. It is anticipated that existing telephone lines in Otay Lakes Road would be extended to service 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.

4.4 VISUAL RESOURCES

4.4.1 Existing Conditions

Landforms

The project site encompasses 1228.4 acres in the western foothills of the Peninsular Ranges, a region of parallel northwest-southeast trending mountain blocks and faults. Local topography consists of rolling hills dissected by intermittent drainages. Elevations range from 750 feet MSL in the northeast portion of the site to roughly 480 feet above MSL in the extreme southeast corner. Figure 2-2 displays onsite and adjacent topography.

The site contains a series of elongated hills forming gently-sloping, low ridgelines. The most prominent of these ridgelines trends slightly northeast to southwest, traversing the entire length of the site. It is cut by numerous small intermittent tributary drainages of Salt Creek. The remaining ridgelines are west to southwest trending spurs of the more prominent feature. These are lower and less continuous, and, in places, resemble distinct low hills. Numerous intermittent drainages also cut these ridges, including the upper portion of Poggi Canyon which also drains to the southwest. Salt Creek drains through the eastern portion of the site, where a man-made earthen dam exists. The area behind the dam is currently dry.

The project site is used nearly exclusively for producing barley. During the spring, the area presents a green, pastoral appearance, while in the summer and fall the grain turns brown. After harvesting, bare fields remain. The land is then left fallow during the late fall and winter and remains essentially bare throughout these seasons.

Additional uses of the site include an 80-foot-wide easement for the Second San Diego Aqueduct, which crosses the southwestern portion of the project area (Figure 2-2). This is an underground structure with no surface facilities present on the project site. San Diego Gas & Electric Company (SDG&E) owns a 120-foot easement for its 230 kV transmission line which follows the same course as the aqueduct within the project site. Together these form a 200-foot-wide easement through the property. The SDG&E facility consists of above-ground metal towers and lines visible from much of the western and southern project area. A cylindrical water storage tank with a capacity of 3 million gallons is located in the extreme northeast corner of the site. A cyclone-type perimeter fence encloses the tank and associated grounds, with landscaping (composed primarily of eucalyptus and pine trees) partially screening the facility. A graded dirt access road leads from the perimeter fence to nearby Otay Lakes Road.

The project site is bordered on the north by paved Otay Lakes Road. Portions of the south, east, and west site boundaries consist of graded dirt roads. Otay Lakes and Telegraph Canyon roads are partially lined with large pepper and olive trees.

Construction associated with the EastLake I community is currently underway adjacent to the northern project boundary. This portion of EastLake I consists primarily of

nonresidential development dominated by Village Center and Employment Park facilities. Additional nearby development includes the Otay Lakes Lodge Mobile Home Park, the College Area Estates single-family housing development, and Southwestern College. All of these are located 0.5 to 1.5 miles west of the project site. Otay Lakes Park is located 1 to 1.5 miles east of the site. A covered water reservoir with an associated pumping station and cylindrical storage tank is located adjacent to the western project site boundary. All three water facilities are landscaped with eucalyptus and pine trees, although the structures are only minimally screened. In the north-eastern portion of the site are several farm structures associated with the agricultural use of the land. The remainder of the area surrounding the project site is vacant and used for agriculture or grazing.

Views

Views from the higher elevations onsite are panoramic. Nearly all of these views encompass rolling hills in the foreground and undeveloped mountains in the distance, including Mother Miguel and San Miguel mountains to the north, the Jamul Mountains to the northeast, and the San Ysidro Mountains to the east and southeast. Views to the west and northwest include the Otay Lakes Lodge Mobile Home Park, the College Area Estates housing development, and, on clear days, downtown San Diego and the Pacific Ocean. From the highest points on the eastern side of the project site, Lower Otay Lake is visible to the east. Portions of Otay Lakes Road, Telegraph Canyon Road, and the SDG&E transmission line are visible from adjacent areas and various high points within the project site. The water reservoir facilities are visible from much of the west central project area and several higher points east. The water storage tank located in the northeast corner of the site is visible from the adjacent ridges and slopes. Views from lower onsite elevations are generally constrained by topography and consist primarily of adjacent landforms and/or facilities. Distant mountains are occasionally visible above adjacent features.

Views of the project site from the surrounding area are affected by topography. Most or all of the site is visible to recreational users on San Miguel Mountain and the Jamul Mountains. The EastLake I facilities adjacent to the northern site boundary will have a view of the northern project area and several high points farther south. Select portions of the Otay Lakes Lodge Mobile Home Park and the adjacent College Area Estates have a limited view of the highest elevations in the western project area. This is primarily a backyard view and is interrupted by the water reservoir facility and the SDG&E transmission line. Southwestern College does not have a view of the project area. Views from the Lower Otay Lake and from Wueste Road are blocked by adjacent topography.

Portions of the project site are visible from paved Telegraph Canyon and Otay Lakes Roads and graded dirt Proctor Valley Road. Such views are generally restricted to areas within several hundred feet of the roadway, although canyons can increase this distance up to 3000 feet locally.

Scenic Resources

Local sections of Telegraph Canyon, Otay Lakes, and Proctor Valley roads have been designated as Second Priority Scenic Routes by the County of San Diego Scenic Highway Element (County of San Diego 1983). To qualify for such a rating, individual routes must meet specific criteria contained in the County General Plan. Telegraph Canyon and Otay Lakes roads have also been designated as unofficial Scenic Routes by the City of Chula Vista Scenic Highways Element (City of Chula Vista 1974). This rating was assigned because of panoramic views of hills, valleys, agricultural areas, and downtown San Diego. The Chula Vista Scenic Highways Element also designates proposed roadways as unofficial Scenic Routes. Orange Avenue, which will eventually comprise the

project site's southern boundary, would be designated as an unofficial Scenic Route. In addition, the Chula Vista document predicts that SR-125, when completed, may qualify as an Official State Scenic Highway. SR-125 would form the western project site boundary. The major objective of both the San Diego County and Chula Vista Scenic Elements is to conserve and enhance the scenic quality of appropriate roadways. To meet this objective, both elements contain several policies which address the regulation of development adjacent to the scenic routes.

The project site is located in a relatively undeveloped portion of San Diego County. Natural night-sky illumination levels are low and the potential for optical astronomical research is high. Two major observatories, Mt. Palomar and Mt. Laguna, are located within 50 miles of the project site. Both contain large telescopes and conduct research in conjunction with major universities, including the California Institute of Technology, San Diego State University, and the University of Illinois.

The City of Chula Vista has not determined any threshold standards for visual resources.

4.4.2 Impacts

The proposed EastLake Greens development would alter the appearance of both the project site and the surrounding landscape. Grading will alter much of the original topography. A portion of the site is designated as Future Urban in the General Development Plan and is proposed to be rezoned and annexed to the City of Chula Vista. Assuming this occurs, the SPA Plan would not conflict significantly with an urban zoning classification.

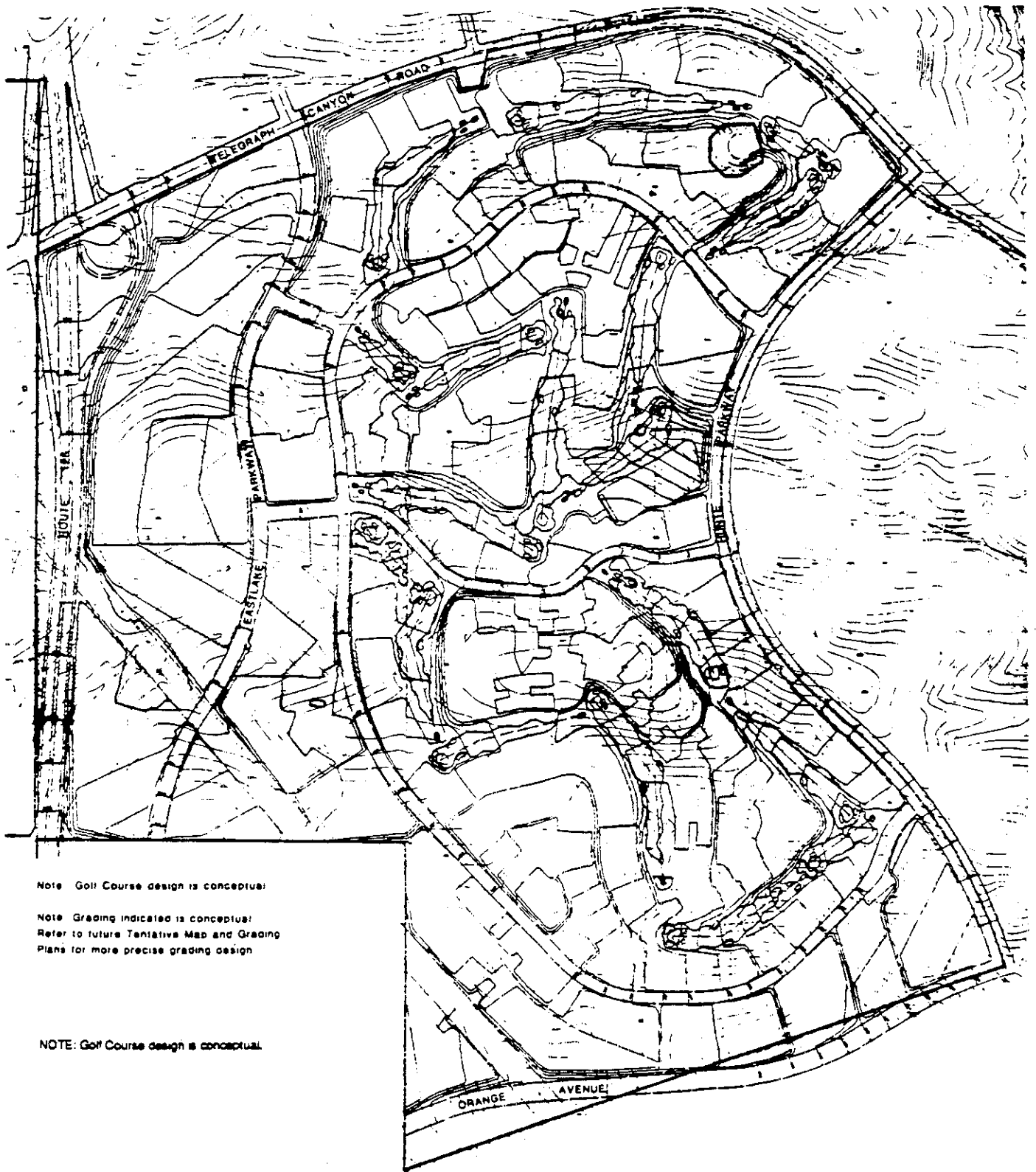
Landforms

EastLake Greens

Proposed development includes significant grading throughout the site to accommodate construction. Cut slopes of up to 70 feet in height are proposed and the topographic profile of the site as a whole would be measurably altered. Specifically, several hills would be leveled and several small interior drainages filled to facilitate construction in higher density building areas. This would include a small number of the proposed residential units plus all of the Village Center, Public/Quasi-public, School and Park sites. Large cuts would be minimized and in general, the grading is planned to blend with natural contours wherever possible (Figure 4-10). Lower density residential sites would require grading for roads and relatively small building pads, although this would be generally minor and most topographic trends could be preserved. The proposed golf course would necessitate less substantial grading than in adjacent residential sites, allowing the preservation of some lesser topographic features. This would provide for a less disruptive appearance between these adjoining land uses and for the project development as a whole.

EastLake Trails

Approval of the proposed annexation of the EastLake Trails area would not directly affect the existing landform. Future development of the project area according to the City of Chula Vista's land use designations and the proposed land use designations would significantly change the majority of the existing site from an agricultural rural state to an urbanized community. Specific impacts from potential landform alteration associated with buildout of the annexation area cannot be identified because grading and development plans have not yet been submitted. Generally, owing to the topography and the general developing nature of the vicinity, potential impacts from landform alteration may not prove to be significant on a project-specific level.



Note: Golf Course design is conceptual.

Note: Grading indicated is conceptual.
Refer to future Tentative Map and Grading Plans for more precise grading design.

NOTE: Golf Course design is conceptual.



SOURCE: Cinti & Associates, 4/29/88.

Grading Plan

**FIGURE
4-10**



Views

EastLake Greens

Onsite views would not change significantly except where determined by project development itself. That is, grading, construction, and landscaping would influence or determine many onsite foreground views, but panoramic views would remain essentially unchanged. Generally, development of the project site would not be expected to result in adverse visual impacts to onsite views. The SPA Plan contains a number of guidelines regarding housing types, grading techniques, landscaping, facade textures, site design, density, arrangement, circulation, and spacing of homes and development to avoid such impacts. Possible exceptions include proposed residential developments in the vicinity of the onsite water storage tank and the SDG&E transmission line. Landscaping partially conceals the water tank, although some residential units both up and down slope would view the structure. This facility is proposed to be included within the golf course boundaries, thereby helping to buffer visual impacts. Proper use of residential unit orientation and additional landscaping would provide additional impact reductions. A second water storage facility proposed for the existing tank site would be similar in design to the existing tank, although somewhat smaller with a capacity of 2 mg. Visual impacts from this second tank would be similar to those of the existing facility. The proposed 50 MG water storage tank will be buried, and therefore, there will be no adverse visual effect associated with that tank. The SDG&E line extends over several thousand feet of the project site and would be visible to several proposed residential areas. Again, appropriate residential unit orientation and landscaping could be used to minimize potential visual impacts.

The development associated with EastLake I would present potential visual impacts for proposed residential units in the northern project site. These residences, however, are separated from the EastLake I facilities by the Telegraph Canyon Road 128-foot right-of-way, and by a 50-foot buffer on each side of the road. Appropriate landscaping of the buffer would effectively mitigate potential visual impacts.

Development of the project site would create both short- and long-term visual impacts for surrounding areas. Short-term impacts would consist of landscape alteration from ongoing grading and construction activities. While this would involve substantial visual alteration, such impacts are not considered significant due to their limited duration and the restricted visual access from surrounding areas. Long-term impacts involve the permanent change of the project site from a rural to an urban landscape. While this is significant, impact qualification (i.e., positive or adverse) is dependent upon specific project designs and the subjective impression of the viewer.

EastLake Trails

At complete buildout of the EastLake Trails area, immediate and distant views of the site would be of portions of the open space area along Salt Creek and of developed areas from Otay Lake Road. Views from other roadways are limited due to intervening topography. Views from Otay Lakes Road and adjacent development to the north (EastLake I) would be consistent and compatible with the intensity of other immediate and surrounding views. Overall, potentially significant visual quality impacts are anticipated with buildout of the annexation area.

Scenic Resources

The designated and potential scenic roadways in the project vicinity would not be adversely affected by the proposed EastLake Greens/Trails Community. Both the County of San Diego and City of Chula Vista General Plans contain specific measures regarding the design and orientation of structures, landscaping, signs, and utilities associated with developments adjacent to scenic routes. The following design criteria are recommended intended to alleviate potential impacts to scenic roadways and visual resources in general.

- Telegraph Canyon/Otay Lakes Road, Orange Avenue, and future State Route 125 would be treated as scenic highways.
- Where feasible, a landscaped corridor averaging 50 feet from the ultimate width right-of-way line should be maintained for all scenic highways associated with EastLake Greens. This landscape corridor may include slopes adjacent to the roadway.
- Any new residential development backing upon a scenic roadway shall have decorative walls and/or landscaped earthen berms. In lieu of walls and/or berms, elevations differences can be considered as buffers between the residences and the roadway. To avoid a walled-in visual effect, the use of single-story structures is encouraged.
- The EastLake Greens community is designed to be a blend of residential, public, commercial, and open space uses. The location and density of associated facilities would reflect this theme.
- Over 230 acres of recreational and open space uses are proposed, including an 18-hole golf course which winds throughout much of the community to provide visual and open space amenities (see Figure 2-7).
- Buildings within the development would be low-profile with a variety of sizes, shapes, colors, and materials employed.
- A variety of grading techniques, lot sizes, site design, density, arrangement, and spacing of homes and developments are proposed to avoid significant visual impacts.
- Graded areas would be contoured to blend with natural landform characteristics.
- The entire community would include a well balanced landscape character varying from highly manicured to naturalized and native areas (see Figure 2-9).
- Programs have been developed to regulate the use of signs, fences, lighting, and accessory structures and facilities in a manner consistent with community goals (see Figure 2-10).
- A network of pedestrian trails and bikeways are planned for internal circulation within EastLake Greens. Landscaping and topographic variation would be used to enhance the visual quality of such pathways (see Figure 2-6).

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.

Development of the project site would increase local night-sky illumination levels. 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 Greens area, which is a considerable distance from the Mt. Palomar and Mt. Laguna observatories, would represent only a minor percentage change to night-sky illumination. In addition,

guidelines calling for specific review and approval of lighting types, locations, and schedules are contained in the SPA Plan. Development of EastLake Greens, in addition to other developments in the region, will result in cumulative significant impacts on night-sky illumination levels.

4.4.3 Mitigation Measures

Guidelines and design criteria to aid in avoiding potential visual impacts on the project site are recommended. Plans detailing proposed architectural design, landscaping, grading, recreation and open space, circulation, lighting, fencing, and signage are included in the EastLake Greens SPA Plan on file with the City of Chula Vista Planning Department. Compliance with these guidelines would ensure that significant adverse visual impacts within the EastLake Greens development are minimized or eliminated. Possible exceptions to this include the residential views associated with the onsite water storage tank, the SDG&E transmission line, and the adjacent EastLake I development. In addition, the following mitigation measures are recommended:

- The onsite water storage tank should receive additional landscaping. This should include the use of additional vegetation within the site compound to obscure the tank itself, as well as exterior landscaping of the perimeter fence to provide a more aesthetic screen. The water tank is proposed for inclusion within the community golf course and any additional landscaping should be readily compatible with such use. The proposed second water tank should receive similar mitigation if constructed.
- Residential units in the vicinity of the onsite water storage tank should be spaced and oriented to minimize views of that facility.
- Residential units in the vicinity of the SDG&E transmission line should be spaced and oriented to minimize views of those facilities. The 50-foot buffer along both sides of the roadway traversing the northern site boundary should receive sufficient landscaping to effectively screen development associated with EastLake I. Additionally, residential units in the northern project site should be spaced and oriented to minimize views to the north where appropriate.

4.4.4 Analysis of Significance

The proposed project would result in the construction of a planned community on land currently designated for urban development. The visual character of the site would change from agricultural use to a planned community, and the project has incorporated extensive measures to avoid potential visual impacts. These measures include the designation of 214.3 acres of open space and recreational use, comprehensive plans for landscaping, grading, circulation, architectural and site design, lighting, fencing, and signing. The project 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 and recommended mitigation measures. Development of EastLake Greens (in addition to other developments) will add to cumulative significant night-sky illumination impacts occurring in the San Diego region.

4.5 GEOLOGY/SOILS

Detailed preliminary geotechnical investigations of the EastLake Greens project have been conducted by Leighton and Associates, Inc. of San Diego (partial site analysis only) and San Diego Soil Engineering, Inc. These geotechnical reports, which present findings,

conclusions and recommendations with regard to site planning and development, are summarized below and are on file with the City of Chula Vista Planning Department. The area within EastLake Trails has not been the subject of geotechnical analysis, and therefore geotechnical information was derived from the EastLake I EIR (WESTEC 1982).

The City of Chula Vista has not determined any threshold standards for geological impacts or constraints in the city.

4.5.1 Existing Conditions

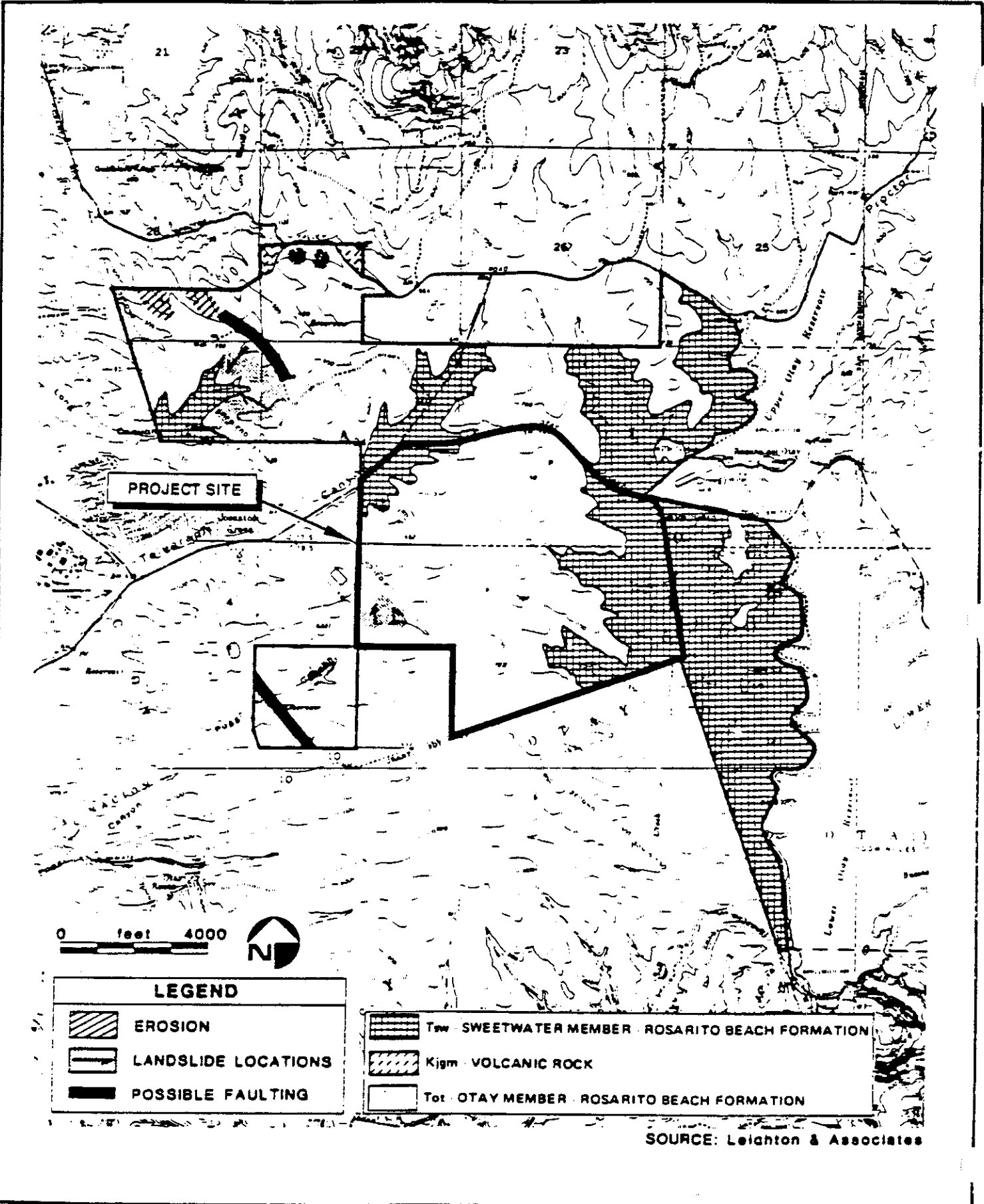
The project site is situated on an ancient marine terrace within the coastal subprovince of the Peninsular Range Province. Remnants of the terrace occur on the site in the form of rounded hills separated by canyons. Onsite elevations range from 750 feet MSL at the top of a hill located just south of Telegraph Canyon Road by the site's eastern boundary to approximately 480 feet MSL in the southeastern corner of the site. Other onsite hills peak at 707 feet, 723 feet, and 652 feet MSL.

Nearly the entire surface of the project site is covered with a veneer of topsoil ranging from 1 to 5 feet in thickness. Additional exposures include quaternary alluvial/colluvial deposits and minor outcroppings of Mid-Tertiary marine and non-marine sedimentary rocks. The site is underlain by the sedimentary Otay Formation and Sweetwater Formation and, presumably, at depth by Mesozoic granitic and metavolcanic rocks of the southern California batholith. The geologic units encountered during the subsurface geotechnical investigation are described below in order of increasing age and are indicated on Figure 4-11. Following the description of geologic units is a discussion of onsite geological hazards.

Topsoil (not shown on map). These soils consist of highly expansive, dark brown to black, silty-sandy clays with organics. Swelling and shrinking is common during wetting and drying periods. Most of the soils onsite belong to the Diablo clay series (DaC and DaD) as classified by the U.S. Department of Agriculture Soil Conservation Service (1973). The Diablo series consists of well-drained, moderately deep to deep clays derived from soft, calcareous sandstone and shale. Soils onsite slope from 2 to 15 percent and are 12- to 60-inches deep over rock. Runoff is slow to medium and erosion hazard is slight to moderate (U.S. Agriculture 1973). Minor amounts of Diablo clay, 15 to 30 percent slopes (DaE); Linne clay loam, 9 to 13 percent slopes (LsE), and Salinas clay loam, 2 to 9 percent slopes (Sb), can also be found onsite.

Alluvium/Colluvium (Oal, Col). Alluvium and colluvium are recent in age and are usually present in stream channels and lower portions of secondary drainages. The alluvium consists primarily of silty or sandy clay and/or clayey sand with varying amounts of organics. Colluvium is located at the contact between natural slopes and alluvial channels and typically resembles a thick wedge of topsoil type materials on the lower portions of slopes. Alluvial and colluvial thicknesses range from approximately 4 to 22 feet within the project site. Soils formed from alluvial and colluvial materials are moderately compressible and highly expansive (WESTEC 1985). This means that the alluvial soils may settle appreciably under superimposed loads and the colluvial soils (slopewash) are expected to exhibit high shrink-swell characteristics with changing moisture conditions.

Otay Formation (To). The Otay Formation is late Oligocene in age and is the predominant bedrock formation onsite. It was deposited in a shallow marine environment with sediments derived from volcanic ash from the west or south and is interfingered with sediments derived from local metavolcanic and granitic terrain from the east, i.e., the Sweetwater Formation, (WESTEC 1985). The Otay Formation consists of light colored,



Geologic Formations and Constraints

**FIGURE
4-11**

fine grained sandstone, siltstone and claystone. The sandstone and siltstone are generally massive, dense and poorly graded. Cross-bedding can occasionally be seen in the sandstone along with weak carbonate cementation and red brown staining of thin beds. Lithologic contacts are often gradational and normally horizontal. Red-brown to olive-green claystone is common throughout the exposed Otay Formation. Typically this material is hard, thin to massively bedded and contains minor amounts of sand or silt. Contacts can be either gradational or distinct and are usually horizontal. Thin beds of pink to clear bentonite clay are common throughout the Otay Formation onsite. These are often laterally discontinuous, remolded and sheared along lithologic contacts.

Generally, the bedrock units of the Otay Formation have good strength characteristics, are suitable to support structural and fill loads and may be used as compacted fill. Bentonite clay seams, however, lose shear strength and may create weak planes adversely affecting slope stability. Thus, local clay seams would require case-by-case evaluation of impacts during grading. Additionally, sandstone units may be locally well cemented and require heavy rippers to facilitate proposed grading. In such cases, oversize rocks requiring special handling and placement may be generated.

Sweetwater Formation (Tsw). The late Oligocene Age Sweetwater Formation underlies and is interbedded with the Otay Formation and unconformably overlies Mesozoic metavolcanics of the southern California batholith. The Sweetwater Formation consists of light brown to red-brown, fine to medium grained sandy claystone, and medium grained sandstone with gravel. Rocks of the Sweetwater Formation have good strength characteristics and are suitable to support structural and fill loads as well as for use as compacted fill. As with the Otay Formation, however, locally cemented zones may generate oversize rocks during grading.

Seismicity: The project site is considered a seismically active area, although there are no known active faults on or adjacent to the property (San Diego Soils Engineering, Inc. 1986). Leighton and Associates (1979) identified two linear features from air photo analysis which were interpreted as possible fault traces. Both of these features are within 0.5 mile of the subject site and possibly extend beneath it. Subsequent literature and field investigation, however, failed to verify the existence of such faults (WESTEC 1985). The nearest major active fault is the Coronado Banks fault, located approximately 20 miles to the west. Other significant regional faults include the Elsinore (40 miles northeast of the site), the San Clemente (45 miles southwest), and the San Jacinto (60 miles northeast). The closest potentially active faults are the La Nacion fault system, located roughly 3.5 miles west of the site and the Rose Canyon fault lying 9 miles to the northwest. Thus, seismic risk for the EastLake Greens site is considered low to moderate relative to southern California as a whole, due to the underlying firm bedrock and the substantial distance to known active faults (San Diego Soils Engineering 1986).

The seismic hazard most likely to impact the project site is groundshaking following a large earthquake on one of the major regional faults. The Coronado Banks and Elsinore faults are the most likely to affect the project site with groundshaking in the event of a major earthquake. Maximum probable events for the Coronado Banks (6.0) and Elsinore (7.0) faults could produce peak horizontal accelerations of 0.13 g and 0.10 g, respectively.

4.5.2 Impacts

Based on the collection and review of geotechnical data, it has been determined that development of the site is feasible from a geotechnical standpoint (San Diego Soils Engineering 1986). 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. There are, however, some potential geotechnical concerns as listed below:

- 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, however, will include the removal of topsoil; therefore, no impacts are expected.
- Alluvium/Colluvium (Oal, Col). The alluvial and colluvial soils that occur onsite are compressible in their present state and may settle appreciably under the surcharge of fills or foundation loadings. These soils are generally considered acceptable for reuse as compacted fill, provided the expansive clayey soils are placed five feet below finished grade and mixed with the onsite granular soils.
- Otay Formation (To). Localized beds of bentonitic clay occur throughout 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. The majority of the Otay Formation is composed of massive sands with interbedded silts. It is anticipated that excavation can be accomplished with the aid of heavy rippers and that the excavated materials will be of very good quality for select fill. There is a potential, however, for generating oversized material by such excavation in cemented bedrock zones. This material may exceed the size normally allowed in fill material and may require case by case mitigation.

The absence of known fault traces on the site and the low seismic history of the Chula Vista area indicate that fault displacement would not pose a threat of future development. Future earthquake activity, however, could produce moderate to severe groundshaking on the project site. This is a hazard existing throughout southern California. The closest fault zone to the site along which earthquakes greater than a Richter magnitude 4.0 have been recorded is more than 50 miles from the site. Because of the distance of major active faults and the bedrock conditions on the site, small woodframe residential structures can be expected to sustain minimal damage if seismic design parameters as required by the State Uniform Building Code are incorporated into project construction.

4.5.3 Mitigation Measures

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

- It is recommended that surficial soils and any existing fill be overexcavated to bedrock material in areas to receive fill. The final depth of removal should be evaluated by the geotechnical consultant at the time of grading.
- Alluvial soils, because of their compressibility, should be completely removed to bedrock. The final depth of removal should be reviewed by the geotechnical consultant during grading.

- Following overexcavation of unsuitable materials, all areas to receive fill and/or other improvements should be scarified to a depth of 6 to 8 inches, brought to near optimum moisture conditions, and compacted to at least 90 percent of the laboratory maximum density.
- All fill should consist of approved earth material. The geotechnical consultant should be contacted for evaluation of imported fill at least two working days prior to importing.
- Fill should be benched into any temporary slopes. Fills constructed on natural slopes steeper than 5:1 (horizontal:vertical) should be keyed and benched into competent ground. The keys should be observed by the engineering geologist prior to filling.
- All fill placed at the site should be compacted to a minimum compaction of 90 percent, based upon ASTM Laboratory Test Designation D 1557. Fill should be compacted by mechanical means in uniform lifts of 6 to 8 inches in thickness.
- All grading and placement of fill should be performed in accordance with the City of Chula Vista Grading Ordinance and all other applicable regulations and guidelines.
- To avoid expansive soils exposed at finished grade, predominantly granular soils (UBC Expansion Index less than 20) within the upper 5 feet of finished grade should be used.
- To provide for unforeseen variation in shrinkage and bulking quantities, provisions should be made for export, import, or onsite balancing, and quantities should be monitored during project grading.
- Disposal of rocks generated by grading which are larger than normally available as fill materials should comply with specifications identified by the geotechnical consultant.
- Vertical and lateral overexcavation requirements for areas of variable fill depth should be evaluated by the geotechnical engineer on an individual basis.
- The height, slope ratio and compaction of all cut and fill slopes should conform to specifications identified by the geotechnical consultant, as appropriate.
- All cut slopes should be observed by the geotechnical consultant during grading. Where bentonite seams are observed, appropriate buttresses or enlarged side hill keys will be utilized as indicated by the geotechnical consultant.
- Foundations, slabs and retaining walls should be designed in accordance with specifications identified by the geotechnical consultant, based on the type of soils and pertinent structural considerations encountered. The soil expansion potential should be evaluated on a lot-by-lot basis during and after completion of grading.
- All foundation excavations should be observed by the soils engineer prior to the placement of forms, reinforcement or concrete.

- Sulfate testing should be conducted at the completion of grading to confirm the reactivity of subgrade soils.
- Tentative grading plans for the project site should be reviewed by the geotechnical consultant upon completion.

In addition to the above recommendations, a geotechnical analysis should be conducted before development of EastLake Trails begins. The annexation and pre-zoning of EastLake Trails in itself would not be significantly affected by geological constraints.

The design and construction of buildings in conformance with the State 1976 Uniform Building Code would effectively minimize the hazards of groundshaking on the site. The potential for liquefaction or differential compaction during seismic events, which may be found in some of the valley areas of the site, can be mitigated or eliminated by following recommendations provided in the geotechnical investigation.

4.5.4 Analysis of Significance

Available geological data indicate that there are no major geologic constraints on the project site that would preclude development. Potential identified impacts are the effects of bentonitic clay seams on slope stability, the compression of alluvial soils, and the generation of oversize material within cemented bedrock zones. Assuming that all pertinent mitigations are complied with, no significant geotechnical impacts are anticipated from the proposed project development. Following the recommendations of the investigation report would avoid significant impacts.

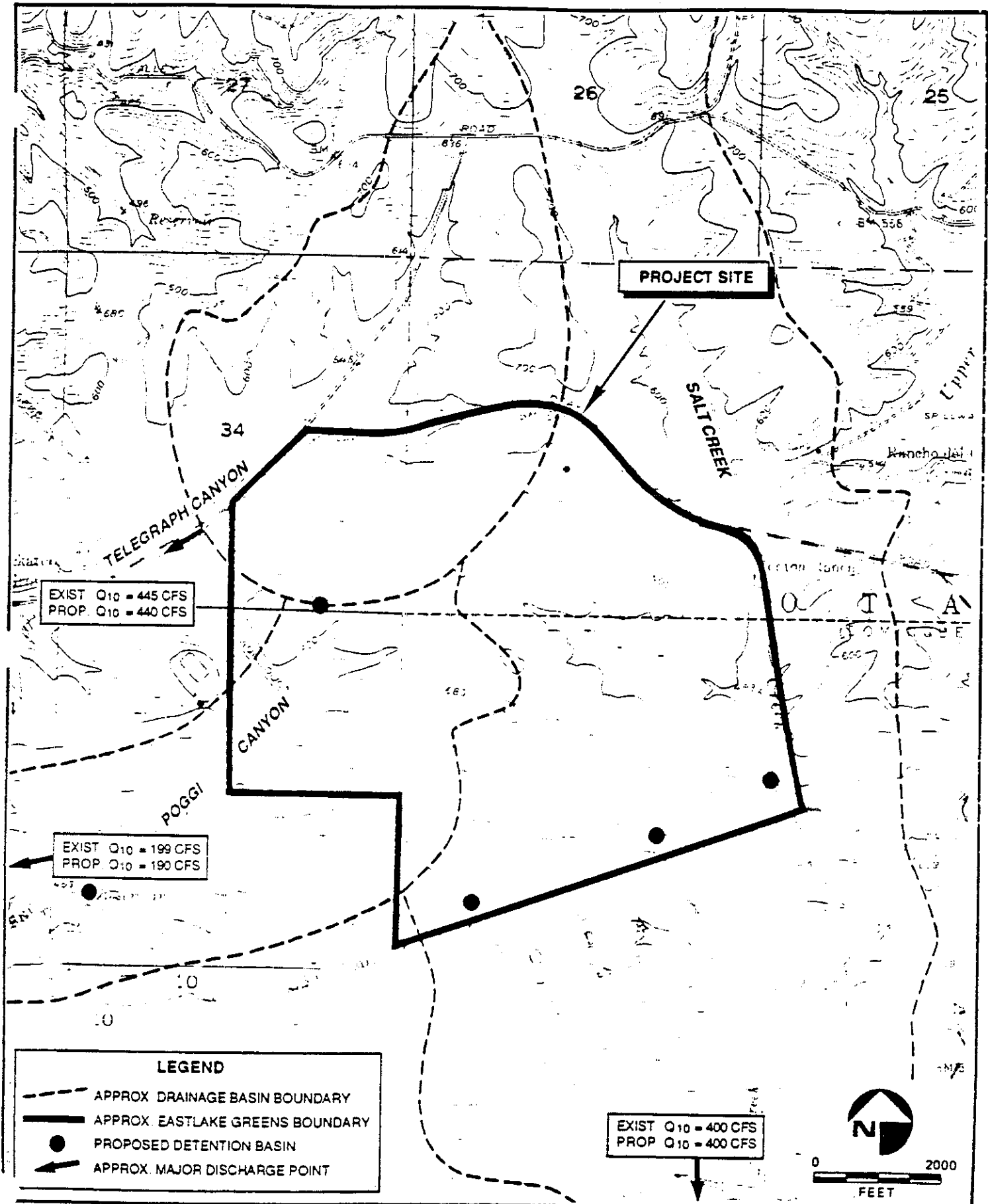
4.6 HYDROLOGY/WATER QUALITY

4.6.1 Existing Conditions

Preliminary hydrologic data have been prepared for the project site by Rick Engineering Company (1986). These data have been utilized for the preparation of this section. In addition, a subsurface geotechnical investigation was performed on the site by San Diego Soils (1986); this report includes information on groundwater and flooding that has been incorporated into this section. Information has also been extracted from previous EIRs on the subject property (WESTEC 1982 and 1985).

The project site is located primarily within the watershed of the Otay River. Surface water drains in three directions through tributary canyons or water courses, namely Telegraph Canyon, Poggi Canyon, and Salt Creek (Figure 4-12). Existing runoff quantities for each of these drainage basins for a 10-year storm (Q10) are 445 cubic feet per second (cfs), 199 cfs, and 400 cfs, respectively (Figure 4-12). This site drains equally in all three directions. Site runoff ultimately enters the Otay River.

Flooding conditions in the project vicinity are described in the EastLake Final Environmental Impact Report, Volume I, (WESTEC Services, Inc., 1982) and in the EastLake I Sectional Planning Area (SPA) Plan Final Environmental Impact Report (1985) and are summarized here briefly. There are no flood-prone areas on the project site although downstream areas of Telegraph Canyon and the Otay River are prone to flooding (WESTEC 1982; County of San Diego 1986). The project site is located within Zones 3 and 4 of the San Diego County Flood Control District. Comprehensive plans for flood control and drainage have been prepared for both zones under the direction of the Flood



Existing Drainage Boundaries

**FIGURE
4-12**



Control District. No major flood control facilities exist or are proposed within the site area. However, plans for both zones assumed open space/agricultural uses in the study area.

Groundwater exists primarily in the larger alluvial valleys and consists of water trapped in the alluvial soils. Groundwater seepage in bedrock formations may occur in areas of substantial cuts; however, none was observed during a 1986 preliminary geotechnical investigation of the site (San Diego Soils Engineering, Inc. 1986). The depth to the regional groundwater Table on the site is estimated to be greater than 100 feet below the project site ground surface.

The City of Chula Vista has not determined any threshold standards concerning hydrology and groundwater quality.

4.6.2 Impacts

Grading and infilling of onsite drainages and the construction of impervious surfaces would increase the amount of surface runoff produced during storms. Due to the granular, cohesionless nature of some of the sandy onsite soils, these materials generally have a high erosion potential. Uncontrolled runoff water could create deep erosion gullies, affecting surficial and gross stability of slopes, and could create build-up of silt deposits within drainage courses, at the toe of slopes, and in storm drains (San Diego Soils Engineering, Inc. 1986). In addition, an increase in runoff would magnify the potential for flooding problems downstream from the site.

The San Diego County Flood Control District does not propose any major flood control facilities within the study area under the existing land uses. The EastLake Greens development will include an onsite drainage system (see Figure 4-13). Plans include four stormwater detention basins onsite and one basin offsite. These detention basins would be designed to retain water so that runoff quantities at the exit point of each drainage basin would be less than or equal to existing runoff for a 10-year storm. Implementation of the proposed drainage and retention system is contingent upon approval by the City of Chula Vista's Department of Public Works, and no impacts are expected to occur as a result of inadequacies of the planned facilities.

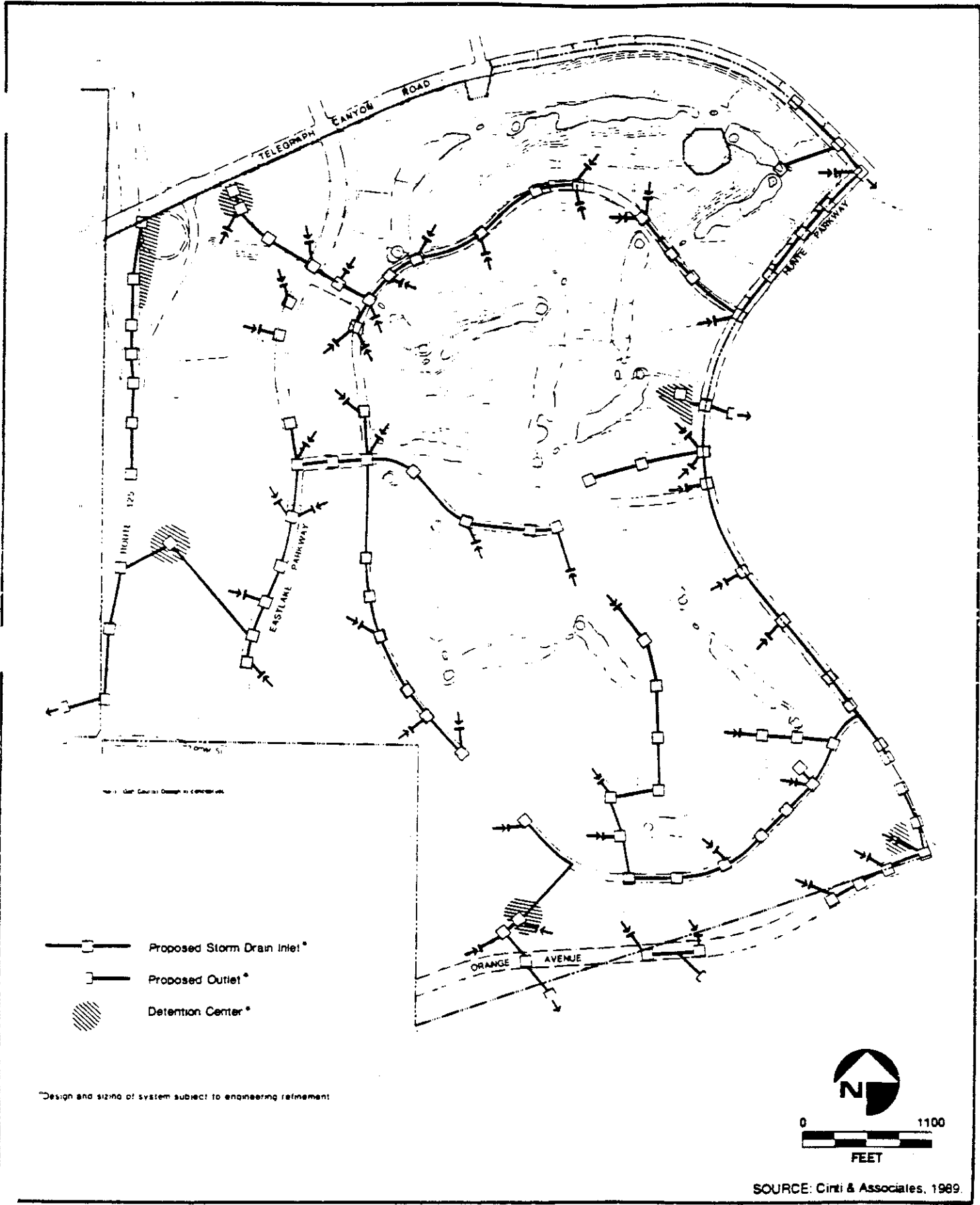
Potential impacts to water quality may occur if reclaimed water is used for irrigation onsite. A discussion of these potential impacts should be addressed in a separate environmental document in the future.

Impacts associated with the annexation and pre-zoning of the EastLake Trails property would not occur. Prior to development of the area, a detailed drainage plan would be required to further assess planned drainage facilities.

4.6.3 Mitigation Measures

A preliminary geotechnical report has been prepared for the EastLake Greens property by San Diego Soils Engineering, Inc. (1986). This report contains various recommendations to provide adequate surface and subsurface drainage and erosion control that should be incorporated into the project design. These recommendations would also pertain to the development of EastLake Trails. Recommended measures include, but are not limited to, the following:

- Surface and Subsurface Drainage: Surface runoff into downslope natural areas and graded areas should be minimized. Where possible, drainage should be



Storm Water Plan

**FIGURE
4-13**

directed to suitable disposal areas via nonerosive devices (i.e., paired swales and storm drains).

Pad drainage should be designed to collect and direct surface waters away from proposed structures to approved drainage facilities. For earth areas, a minimum gradient of two percent should be maintained and drainage should be directed toward approved swales or drainage facilities. Drainage patterns approved at the time of fine grading should be maintained throughout the life of proposed structures.

Subdrains should be placed under all fill located in existing drainage courses at identified or potential seepage areas. Specific locations should be evaluated in the field during grading with general subdrain locations indicated on the approved grading plan. The subdrain installation should be reviewed by the engineering geologist prior to fill placement.

Drainage devices are recommended behind stabilization fills to minimize the build-up of hydrostatic and/or seepage forces. (See Preliminary Geotechnical Investigations, San Diego Soils Engineering, Inc. (1986) for details and recommended locations of these backdrains.) Depending on slope height, at least one tier of drains would be required for approximately every 30 feet of slope height. Drains may also be needed at contacts between permeable and non-permeable formations.

- Erosion Control: Slopes should be planted with appropriate drought-resistant vegetation as recommended by a landscape architect immediately following grading. Slopes should not be over-irrigated; heavy groundcover combined with over-watering is a primary source of surficial slope failures. Timer-controlled irrigation should be altered during the rainy season. Erosion control and drainage devices should be installed in compliance with the requirements of the City of Chula Vista.
- Maintenance of Drainage Devices: Graded berms, swales, area drains, and slopes are designed to carry surface water from pad areas and should not be blocked or destroyed. Water should not be allowed to pond in pad areas, or over top and flow down graded or natural slopes.

Sources of uncontrolled water, such as leaky water pipes, drains, or swimming pools, should be repaired if identified.

Devices constructed to drain and protect slopes, including brow ditches, berms, retention basins, terrace drains (if utilized) and down drains should be maintained regularly, and in particular, should not be allowed to clog so that water can flow unchecked over slope faces. Subdrain outlets should be maintained to prevent burial or other blockage.

A site-specific geotechnical report will be required prior to development of the EastLake Trails area. Recommendations included in the future geotechnical report should also be implemented.

4.6.4 Analysis of Significance

No significant, unmitigable impacts to hydrology or drainage would result from project implementation if recommendations contained in the preliminary geotechnical report and in

any subsequent geotechnical reports are implemented and if drainage system plans are approved by the City of Chula Vista's Department of Public Works.

4.7 PALEONTOLOGICAL RESOURCES

The following discussion of paleontological resources in the project area is summarized from the EastLake Final Environmental Impact Report Volume 1 (WESTEC 1982). This document addressed the entire EastLake community including EastLake Greens and EastLake Trails.

4.7.1 Existing Conditions

The Oligocene Otay and Sweetwater formations, which underly the majority of the project site, possess a high potential for containing significant fossils. The Sweetwater and Otay formations are comprised of fluvial and lacustrine sediments. During the mass excavation work for the initial phases of EastLake, abundant and well preserved fossil remains of early vertebrate animals were unearthed and salvaged. The recovered EastLake fossils represent a very significant contribution to California paleontology, and are considered to be the richest such deposits in California for the late Oligocene (27 to 28 million years old) fossil vertebrates. (T. Demere 1989).

Detailed field examination of the specific formations underlying the project site requires deeper cuts and wider exposures than now exist. Additional paleontological data may be provided through examination of future soil and geotechnical borings or cut slopes during grading operations.

4.7.2 Impacts

Large-scale landform alterations and grading may expose and destroy subsurface fossil-bearing strata. New and important paleontological data may be provided through examination of cuts during grading operations. There is potential for adverse impacts to significant paleontological resources on the project site.

4.7.3 Mitigation

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 grading activities during development of the EastLake Greens site and the EastLake Trails site.

4.7.4 Analysis of Significance

Significant impacts to paleontological resources in the project area could occur during grading. Significance of these impacts cannot be determined at this time. A certified paleontologist should be onsite during grading activities.

4.8 AIR QUALITY

4.8.1 Existing Conditions

The following description of ambient air quality in the project area is extracted from the EastLake I Sectional Planning Area Final EIR (WESTEC 1985). EastLake I is located immediately adjacent to the north of the EastLake Greens project site and, therefore, contains similar climatic conditions and quality of air.

The climate in the vicinity of EastLake I, EastLake Greens, 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. It also 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).

The two types of temperature inversions, subsidence and radiation, act to degrade air quality in the vicinity of EastLake Greens. 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.

The City of Chula Vista implements standards adopted by the Regional Air Quality Maintenance Plan (AQMP) as their threshold standard for air quality.

Regulatory Framework

Ambient Air Quality Standards (AAQS) represent the maximum level of background pollution considered safe, with an adequate margin of safety, to protect 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. Figure 4-14 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 State Implementation Plan (SIP) Revisions, documents the necessary 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 are employed by 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.

Ambient Air Quality

Ambient air quality is monitored by the State Air Resources Board at the Chula Vista monitoring station. In the absence of site specific air quality data, data from the Chula Vista station is assumed to be representative of the site.

POLLUTANT	AVERAGING TIME	CALIFORNIA STANDARDS		NATIONAL STANDARDS			
		CONCENTRATION	METHOD	PRIMARY	SECONDARY	METHOD	
OXIDANT	1 HOUR	0.10 ppm ³ (200 ug/m ³)	ULTRAVIOLET PHOTOMETRY	-	-	-	
OZONE	1 HOUR	-	-	240 ug/m ³ (0.12 ppm)	SAME AS PRIMARY STANDARDS	CHEMILUMINESCENT METHOD	
CARBON MONOXIDE	8 HOUR	9 ppm ³ (10 mg/m ³)	NON- DISPERSIVE INFRARED SPECTRO- SCOPY	10 mg/m ³ (9 ppm)	SAME AS PRIMARY STANDARDS	NON-DISPERSIVE INFRARED SPECTROSCOPY	
	1 HOUR	20 ppm ³ (23 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 CHEMILUMI- NESCE	
	1 HOUR	0.25 ppm ³ (470 ug/m ³)		-			
SULFUR DIOXIDE	ANNUAL AVERAGE	-	CONDC- TIMETRIC METHOD	80 ug/m ³ (0.03 ppm)	-	PARAOSANILINE METHOD	
	24 HOUR	0.05 ppm ³ (131 ug/m ³)		365 ug/m ³ (0.14 ppm)			
	3 HOUR	-		-			1300 ug/m ³ (0.5 ppm)
	1 HOUR	0.25 ppm ³ (655 ug/m ³)		-			-
SUSPENDED PARTICULATE MATTER	ANNUAL GEOMETRIC MEAN	PM - 10 30 ug/m ³	HIGH VOLUME SAMPLING	TSP 75 ug/m ³	60 ug/m ³	HIGH VOLUME SAMPLING	
	24 HOUR	PM - 10 50 ug/m ³		TSP 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 ³ (42 ug/m ³)	CADMIUM HYDROXIDE STRAC-TAN METHOD	-	-	-	
VINYL CHLORIDE (CHLOROETHENE)	24 HOUR	0.010 ppm ³ (26 ug/m ³)	GAS CHROMA- TOGRAPHY	-	-	-	
ETHYLENE	8 HOUR	0.1 ppm	-	-	-	-	
	1 HOUR	0.5 ppm					
VISIBILITY REDUCING PARTICLES	ONE OBSER- VATION	IN SUFFICIENT AMOUNT TO REDUCE THE PREVAILING VISIBILITY TO LESS THAN 10 MILES WHEN THE RELATIVE HUMIDITY IS LESS THAN 70%		-	-	-	

ppm³ - PARTS PER MILLION
ug m³ - MICROGRAMS PER CUBIC METER
mg m³ - MILLIGRAMS PER CUBIC METER

The entire San Diego Air Basin has not attained state and federal standards for ozone. In addition, the western two-thirds of the basin is designated as a non-attainment area for carbon monoxide (CO) and particulates although the region has been consistent with CO standards for the past several years. The San Diego region has attained standards for sulfur dioxide, nitrogen dioxide, and lead (APCD 1986). The most recent SANDAG growth forecasts, Series VI, have been used to monitor the progress with which the region is attaining the 1982 SIP standards. These revised growth forecasts are not expected to interfere with the attainment of ozone standards by 1987 or to cause a violation of CO standards (APCD 1986). Particulate standards are currently being revised. Therefore, attainment of those standards cannot be accurately forecast.

4.8.2 Impacts

During the construction phase of the EastLake Greens project, short-term emissions of several types of air pollutants would occur. Dust would be generated and the combustion of fossil fuels by construction equipment would create emissions. Clearing, earth movement, and travel on unpaved surfaces can create considerable quantities of fugitive dust. The California Air Resources Board (ARB) estimates that such activities create about 1.2 tons of dust per acre per month disturbed. Construction dust is comprised primarily of large, chemically inert particles which, when inhaled, can be filtered through the human respiratory tract. Therefore, the dust constitutes more of a temporary soiling nuisance on cars, homes, foliage, and other surfaces than a health hazard. Impacts of this type tend to be less severe, more localized, and somewhat more easily controlled than those of other sources. The ARB estimates that dust control measures can reduce dust emission rates by about one-half (i.e., regular watering).

Long-term emissions of air pollutants occur from both stationary and mobile sources. Stationary source pollutant emissions include those generated by the consumption of natural gas and electricity and the burning of wood in residential fireplaces while vehicle travel associated with EastLake Greens would generate mobile source emissions including carbon monoxide, nitrogen oxides, and hydrocarbons. Table 4-14 contains a breakdown of the pollutants that would be generated by mobile sources within EastLake Greens. The project would generate approximately 236 tons/year of hydrocarbons, an important precursor to photochemical smog.

In the San Diego area, a project is considered to have a significant, cumulative air quality impact if it has not been included in the SANDAG Series V and VI growth forecasts which are the basis for the air quality attainment plans contained in the 1982 SIP Revisions and the 1985 progress report of the APCD. Series V and VI growth forecasts for the project site assumed a mixed-use development with residential densities ranging from 4.5 to 12 dwelling units/acre for the portion of the site that was originally part of EastLake I. However, the portion of the site that presently lies outside of the City of Chula Vista City limits in EastLake II was not included in the Series VI forecasts. Therefore, the project is not consistent with the 1982 SIP Revisions and could affect the ability of the region's air quality strategy to attain federal and state standards. This constitutes a potentially-significant, cumulative air quality impact. The City of Chula Vista will annually provide the San Diego Air Pollution Control District with a 12 to 15 month development forecast to evaluate impacts related to air quality (Chula Vista 1987). The more recent Series VII forecasts containing the East Lake II development will be used in the next SIP Revisions.

Table 4-14

**EASTLAKE GREENS/TRAILS
SUMMARY OF PROJECTED EMISSIONS
(Tons/Year)**

	<u>Mobile Source Emissions</u>
Carbon Monoxide (CO)	2592
Nitrogen Oxides (NOx)	424
Sulfur Dioxide (SO2)	25
Hydrocarbons (HC)	236
Total Suspended Particulate Matter (TSP)	80

4.8.3 Mitigation Measures

There are four basic tactics for the mitigation of air quality presented as part of San Diego's attainment plans (APCD 1986). These are traffic flow improvements, ridesharing, bicycling, and transit. The project, as proposed, incorporates traffic flow improvements, bicycling, and transit. In addition, this project applicant will contribute to the EastLake I transit center and a 120-space parking facility to encourage carpooling and public transit use in the area. All intersections affected by the project would be maintained at levels of service C or better, and the project provides both bicycle routes (Figure 2-9) and transit routes and bus stops throughout the development.

The project reduces the potential for air quality impacts through the mixed-use land use concept which reduces vehicle trips. However, since the project, as proposed, was not included in SANDAG's Series V and VI growth forecasts, further measures are necessary. The most obvious and effective measure to further reduce emissions is to limit the density of development. If this does not occur, other specific measures should be implemented as project development occurs. These measures are listed below:

Construction:

- Use watering or other dust palliatives to reduce fugitive dust; emissions reductions of about 50 percent can be realized by implementation of these measures.
- Enforce a 20 mile-per-hour speed limit on unpaved surfaces.
- Utilize heavy-duty construction equipment that is equipped with modified combustion/fuel injection systems for emissions control.

Long-term:

- Ensure the transit center and carpooling parking facilities are built.

4.8.4 Analysis of Significance

Although the project can incorporate a variety of mitigation measures, the development would still represent growth that was not considered when formulating the air quality attainment plans for the San Diego region. The project could, therefore, have significant cumulative air quality impacts even after mitigation measures have been implemented.

4.9 BIOLOGICAL RESOURCES

This section describes the biological setting of the project and the general distribution and component plants of the vegetative associations found on and adjacent to the site. It also discusses wildlife habitat resources and their use. Particular attention is given to significant biological features on or near the project site. Significant biological features are herein considered floral or faunal species of rare and/or endangered status, depleted or declining species, and species and habitat types of unique or limited distribution. This analysis also addresses potential biological impacts on- and offsite that could occur as a result of the project, and presents conceptual mitigation for those impacts.

A biological survey of the entire EastLake property was completed in February 1982. The biological survey conducted for this analysis comprises an update of those previous findings for the EastLake Greens/Trails portion only. WESTEC biologists Elyssa Robertson and Philip Unit surveyed the site for biological resources on July 22, 1988. Weather and other environmental conditions at the time of the biological survey were adequate for the detection and evaluation of migratory and resident birds and many mammals, amphibians and reptiles. All plants were identified, and direct observation and vocalization were used to identify animals.

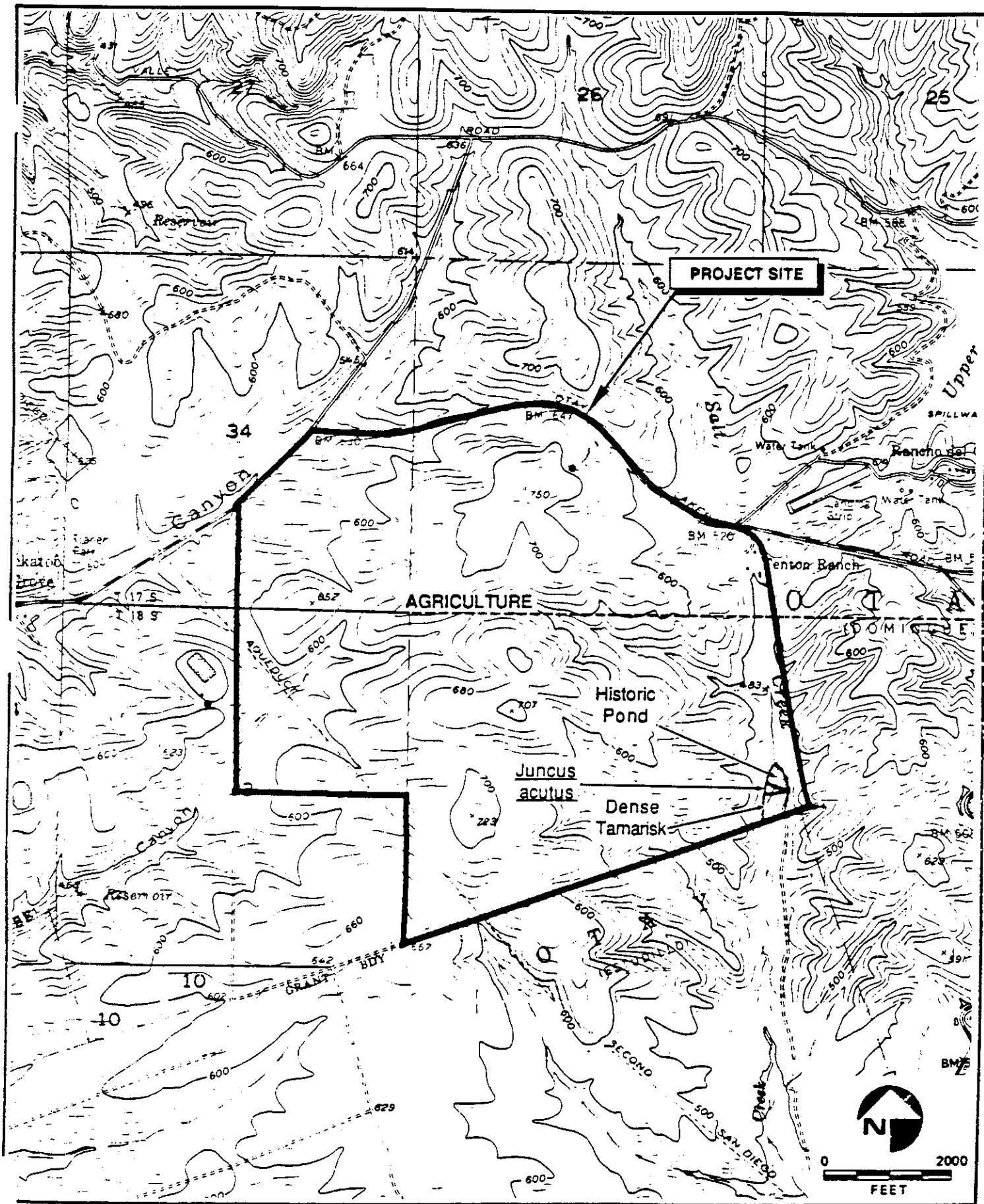
4.9.1 Existing Conditions

Vegetation

The majority of the study area is regularly plowed and dry farmed for barley. The remaining habitats include ruderal, tamarisk scrub, fresh water marsh, disturbed fresh water marsh, and disturbed riparian habitat. These habitats are discussed below and delineated on Figure 4-15. A complete list of plant species observed within the Salt Creek drainage is given in Table 4-15.

Ruderal habitats occupy human-disturbed areas, such as along roads, the borders of cultivated zones, and around Fenton Ranch. Vegetative elements associated with these areas are ornamental species and weedy adventitious species. Ornamental non-native cultivated trees include eucalyptus, peppers, silk oaks, palms, and olive. Eucalyptus (*Eucalyptus* sp.), California pepper (*Schinus molle*), and olive (*Olea europa*) line Otay Lake Road. Weedy ruderal species consist primarily of introduced forbs and grasses.

A disturbed riparian woodland and disturbed freshwater marsh occur within Salt Creek drainage. An earthen dam separates the disturbed riparian and disturbed fresh water marsh habitat from the tamarisk scrub and fresh water marsh to the south. A pond estimated at 1.5 acres, located north of the dam by WESTEC in 1982, has since dried and been tilled for barley production. Dock (*Rumex crispus*), Sweet fennel (*Foeniculum vulgare*), and black mustard (*Brassica nigra*) are beginning to revegetate the disturbed pond area. Surrounding the disturbed fresh water marsh are 8 large willows representing a disturbed riparian woodland. The north face of the earthen dam is dominated by mulefat (*Baccharis glutinosa*).



Biological Resources

**FIGURE
4-15**

Table 4-15

PLANT SPECIES OBSERVED ALONG THE
SALT CREEK DRAINAGE OF THE
EASTLAKE TRAILS PROPERTY

Scientific Name	Common Name
<i>Salix</i> sp.	Willow
<i>Marubium vulgare</i>	Horehound
<i>Brassica nigra</i>	Black Mustard
<i>Rumex</i> sp.	Curly Dock
<i>Baccharis glutinosa</i>	Mule Fat
<i>Tamarix</i> sp.	Tamarisk
<i>Eucalyptus</i> sp.	Eucalyptus
<i>Baccharis sarothroides</i>	Broom Baccharis
<i>Juncus acutus</i>	Spiny Rush
<i>Distichlis spicata</i>	Saltgrass
<i>Bromus diandrus</i>	Ripgut Grass
<i>Polypogon monspeliensis</i>	Rabbitfoot Grass
<i>Haplopappus venetus</i> ssp. <i>oxyphyllus</i>	San Diego Goldenbush
<i>Heliotropium curassavicum</i>	Chinese Pusley
<i>Foeniculum vulgare</i>	Sweet Fennel

The south face of the earthen dam is dominated by dried mustard. Immediately south of the dam is a fresh water marsh (approximately 1/2 acre) dominated exclusively of spiny rush (*Scirpus acutus*) and saltgrass (*Distichlis spicata*). Spiny rush continues south to a dense stand of tamarisk scrub, which consists almost exclusively of tamarisk (*Tamarix spp.*) a nonnative weedy shrub that often invades after native vegetation has been cleared. This scrub usually occurs on sandy or gravelly braided washes or along intermittent streams, often in saline areas. Tamarisk is a lavish user of water and a prolific seeder, and is therefore an aggressive competitor in disturbed riparian corridors (Holland 1986). Several Phoenix palms exist among the tamarisk. This habitat extends down Salt Creek to the south and offsite. There is no natural habitat buffer around this wetland complex.

High interest plant species include those listed as sensitive by the U.S. Fish and Wildlife Service (USFWS) (1985), California Department of Fish and Game (CDFG) (1985), and California Native Plant Society (CNPS) (Smith and York 1984). The CNPS listing is sanctioned by the CDFG and serves as their list of candidate species for listing as threatened or endangered.

None of the plant species observed onsite during WESTEC's survey is currently listed as endangered or threatened by the USFWS, the CDFG or the CNPS. There are, however, a number of sensitive species that were identified on the EastLake property surrounding the project site and could potentially occur near or on the site. These species are listed in Table 4-16 along with their federal or state status (if any), their CNPS code designation, and comments on the species' habitats and occurrence.

Wildlife

Because the majority of the study area is cultivated and relatively free of protective cover for much of the year, wildlife abundance and use of the area is expected to be limited. Wildlife use is expected to be concentrated or attracted to those areas of remaining native vegetation. Given the rural character of the area and the extensive surrounding open space, however, one would expect to find a majority of the wildlife species normally associated with the coastal plain and lower foothills of the San Diego Region. Coastal sage scrub habitat, lacking within the project area, is well-developed immediately adjacent to the south of the project site. No rare, endangered or threatened animal species as listed by the USFWS (1979) or the CDFG (1980a) were observed in the study area.

Mammals

The only mammal species directly observed onsite was the common desert cottontail (*Sylvilagus audubonii*). Previously (WESTEC 1982), several mammal species were detected in the general area of the EastLake property. These include common black-tailed jack rabbit (*Lepus californicus*), coyote (*Canis latrans*), Botta's pocket gopher (*Thomomys bottae*), woodrat (*Neotoma* sp), and gray fox (*Urocyon cinereoargenteus*). Evidence of mule deer was not observed, possibly due to the general lack of adequate cover in the vicinity. Aside from an assortment of field mice, such common species as striped skunk (*Mephitis mephitis*), spotted skunk (*Spilogale putoris*), raccoon (*Procyon lotor*), long-tailed weasel (*Mustela frenata*), bobcat (*Felis rufus*), and Virginia opossum (*Didelphis virginiana*) would be expected in the general area. No sensitive or endangered mammal species are expected to use the EastLake Greens/Trails site.

Amphibians and Reptiles

Reptiles observed either on the subject property or on adjacent similar habitat during the 1982 biological survey include the western fence lizard (*Sceloporus occidentalis*), coastal

Table 4-16

HIGH-INTEREST PLANT SPECIES KNOWN
FROM THE PROJECT VICINITY

Species	Status ¹	Comments and Likelihood of Occurring Onsite
<i>Hemizonia conjugens</i> Otay Tarplant	USFWS: Candidate (Category 2) CDFG: Endangered (CE) CNPS: List 1, 3-3-2	Restricted to scattered localities on clay soils and in swales from the vicinity of Sweetwater Reservoir south to the border. It is apparently equally uncommon in Mexico. The primary threat to this species is development of its habitat. This species occurs along the north-eastern property boundary but was not observed within the EastLake Greens/Trails site. Potential for this species to occur onsite is low due to lack of suitable soil type.
<i>Ferocactus viridescens</i> Coast Barrel Cactus	CNPS: List 2, 1-3-1	Limited to San Diego County and Baja California. In San Diego County, this species is occasional on dry slopes below 1500 m (4922 ft) and is found along the coastal slope from Oceanside south to Boundary Monument. <i>Ferocactus viridescens</i> is seriously threatened by urbanization, off-road vehicles, and commercial exploitation. Over 300 specimens of this species were detected during the 1982 survey however none were observed or are expected to occur on the EastLake Greens/Trails site.
<i>Dudleya variegata</i> Variegated Dudleya or San Diego Hasseanthus	USFWS: Candidate (Category 2) CNPS: List 4, 1-2-2	Restricted in distribution to southern San Diego County and northwestern Baja California. Northern limits of the species are now Miramar NAS (PSBS 1982), Ralphs Ranch (Wier Biological 1983), Poway (at Lou Grubb Chevrolet, C. Patterson, pers. comm.), and a small population at Rancho Arbolitos (PSBS 1981). The population at Rancho Arbolitos may now be extirpated, since a development was planned for the area. The species occurs

Table 4-16 (Continued)

HIGH-INTEREST PLANT SPECIES KNOWN
FROM THE PROJECT VICINITY

Species	Status ¹	Comments and Likelihood of Occurring Onsite
<i>Dudleya variegata</i> (Cont.) Variegated Dudleya or San Diego Hasseanthus	USFWS: Candidate (Category 2) CNPS: List 4, 1-2-2	away from the coast and usually grows in areas vulnerable to development rather than at sites at which it might be more easily protected (i.e., peaks). This species was observed north of Procter Valley Road (WESTEC 1982) but was not observed on the EastLake Greens/Trails site nor is expected to occur due to the disturbed nature of the site.
<i>Salvia munzii</i> Munz's Sage	CNPS: List 2, 2-2-1	A small shrub which occurs frequently below 500 m (1640 ft) elevation in coastal sage scrub in the south foothill and coastal region of San Diego County. Reported localities for this species include San Miguel, Jamul, and Otay mountains, Dictionary Hill, Procter Valley, and Lower Otay Lake (Beauchamp 1986). This species was observed on the EastLake property north of Procter Valley Road but is not expected to occur on the EastLake Greens/Trails site.
<i>Adolphia californica</i> California Adolphia	CNPS: List 2, 1-2-1	Known from western San Diego County and northwestern Baja California. Occurs on clay soils, in dry canyons and washes in chaparral below 300 m (965 ft) elevation. Reported localities in the county include Morro Hill, Agua Hedionda, Rancho Santa Fe, Mount Soledad, Bernardo, Chollas Valley, Barrett Junction, Procter Valley, and Otay (Beauchamp 1986). This species was observed in the northern portion of EastLake I but is not expected to occur onsite due to the agricultural and disturbed nature of the site.

Table 4-16 (Continued)

HIGH-INTEREST PLANT SPECIES KNOWN
FROM THE PROJECT VICINITY

Species	Status ¹	Comments and Likelihood of Occurring Onsite
<i>Viguiera lanciniata</i> San Diego Sunflower	CNPS: List 2, 1-2-1	This species occurs in southern San Diego County and northwestern Baja California. In San Diego County, <i>V. lanciniata</i> occurs from the international border north to about Santee and extends from the seacoast east, at a few localities where habitat remains, to about
<i>Viguiera lanciniata</i> (Cont.) San Diego Sunflower	CNPS: List 2, 1-2-1	Crest. The primary threat to this species is urbanization. San Diego sunflower is a yellow-flowered, spring-blooming (January-July), xerophytic shrub that occurs in coastal sage scrub. This species is not expected to occur onsite due to lack of suitable habitat.
<i>Selaginella cinerascens</i> Mesa Clubmoss	CNPS: List 2, 1-2-1	This prostrate, moss-like plant occurs in San Diego County and northwestern Baja California. Relatively abundant in coastal areas, occurring on flat mesas that are prime locations for development, such as Mira Mesa and Tierrasanta. Development of these areas has caused massive destruction of the habitat of this species. This species is not expected to occur in the drier areas of the site due to agricultural production.

¹U.S. Fish and Wildlife Service (1985a)
California Department of Fish and Game (1985)
California Native Plant Society (Smith and York 1984)

List 1: Plants of Highest Priority

1A: Plants presumed extinct in California

1B: Plants rare or endangered in California and elsewhere

List 2: Plants rare or endangered in California, but more common elsewhere

List 3: Plants about which we need more information

List 4: Plants of limited distribution (A watch list)

Table 4-16 (Continued)

HIGH-INTEREST PLANT SPECIES KNOWN
FROM THE PROJECT VICINITY

Species	Status ¹	Comments and Likelihood of Occurring Onsite
<u>CNPS R-E-D Code</u>		
R (Rarity)		
1	= Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.	
2	= Occurrence confined to several populations or to one extended population.	
3	= Occurrence limited to one or a few highly restricted populations, or present in such numbers that it is seldom reported.	
E (Endangerment)		
1	= Not endangered	
2	= Endangered in a portion of its range	
3	= Endangered throughout its range	
D (Distribution)		
1	= More or less widespread outside California	
2	= Rare outside California	
3	= Endemic to California	
<u>Federal Candidate Species Designations</u>		
C1	= USFWS has sufficient biological information to support a proposal to list as threatened or endangered	
C2	= Taxa for which existing information may warrant listing, but for which substantial biological data to support a proposed rule are lacking	
C3a	= Extinct	
C3b	= Taxonomically invalid	
C3c	= Too widespread and/or not threatened	

rosy boa (*Lichanura trivirgata* ssp. *roseofusca*), common kingsnake (*Lampropeltis geulius* ssp. *californiae*), red diamond rattlesnake (*Crotalus ruber* ssp. *ruber*), San Diego gopher snake (*Pituophis melanoleucus* ssp. *annectens*), and San Diego horned lizard (*Phrynosoma coronatum* ssp. *blainvillei*). The temporary presence of water in the Salt Creek catch basins on the property may attract a variety of toads and frogs in the spring. No rare, endangered or threatened species were detected onsite nor are expected to use the site.

Birds

A complete list of bird species observed onsite are listed in Table 4-17. Twenty different bird species were observed during the survey. Within the cultivated or disturbed habitats and generally open habitats, observed species include Mourning Dove (*Zenaida macroura*), Cassin's Kingbird (*Tyrannus vociferans*), Starling (*Sturnus vulgaris*), Loggerhead Shrike (*Lanius ludovicianus*), Northern Mockingbird (*Mimus polyglottos*), Common Raven (*Corvus corax*), and Brewer's Blackbird (*Euphagus cyanocephalus*).

Species observed which tend to be found in native low scrub habitat include California Quail (*Lophortyx californicus*), Brown Towhee (*Pipilo fuscus*), Black-tailed Gnatcatcher (*Polioptila melanura californica*), Black Phoebe (*Sayornis nigricans*), California Thrasher (*Toxostoma redivivum*), Costa's Hummingbird (*Calypte costae*), Bewick's Wren (*Thryomanes bewickii*), Cliff Swallow (*Petrochelidon pyrrhonota*), Wren-tit (*Chamaea fasciata*), Blue Grosbeak (*Guiraca caerulea*), Red-winged Blackbird (*Agelaius phoeniceus*) and Brown Towhee (*Pipilo fuscus*).

Raptors observed onsite include American Kestrel (*Falco sparverius*), and Red-tailed Hawk (*Buteo jamaicensis*). Several additional raptor species were observed in the area during the 1982 survey, including White-tailed Kite (*Elanus leucurus*), Marsh Hawk (*Circus cyaneus*) and Golden Eagle (*Aquila chrysaetos*). The large eucalyptus grove near Fenton Ranch is undoubtedly used by a variety of raptors for perching, and one non-active nest was spotted during the survey.

Birds of prey as a group are considered sensitive because of their position at the top of the food chain, their vulnerability to human disturbance, and the continuing loss of foraging and nesting habitat suitable for them. As mentioned, Red-tailed Hawk and American Kestrel were detected onsite. The Red-tailed Hawk is probably the most common hawk in urban fringe areas and is not protected by any regulatory agency. The American Kestrel is on the Audubon Society's Blue List (Tate and Tate 1982), although it is considered a common breeding species in San Diego County.

The California Black-tailed Gnatcatcher (*Polioptila melanura californica*) is a candidate for federal listing (Category 2) and both *P. m. californica* and *P. m. lucida* are considered species of special concern by the CDFG (Remsen 1978). The coastal race, *P. m. californica*, is restricted for breeding to coastal sage scrub in which *Artemisia californica* is usually the dominant shrub. North of the Mexican border, it is restricted to the coastal plain of southern California. Much of the habitat within its range is located in rapidly developing areas where effective conservation measures have not yet been undertaken. The population has been estimated at about 1300 pairs in the United States and little or none of its habitat is formally protected and managed. This species has not been found recently in Ventura and San Bernardino counties, and it is declining in the other four coastal counties as well. The population in San Diego County has been estimated as 400 pairs (Atwood 1980). No reliable data on the territory of this bird in San Diego County have been published, although Atwood (1980) reported breeding densities of up to 1 pair per 5 acres on the Palos Verdes Peninsula in Los Angeles County.

Table 4-17

BIRD SPECIES IDENTIFIED ALONG SALT CREEK

Species	Number
American Kestrel (<i>Falco sparverius</i>)	1
Red-tailed Hawk (<i>Buteo jamaicensis</i>)	1
California Quail (<i>Lephortyx californicus</i>)	15
Mourning Dove (<i>Zenaidura macroura</i>)	10
Costa's Hummingbird (<i>Calypte costae</i>)	2
Black Phoebe (<i>Sayornis nigricans</i>)	1
Cassin's Kingbird (<i>Tyrannus vociferans</i>)	1
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	2
Common Raven (<i>Corvus corax</i>)	1
Northern Mockingbird (<i>Mimus polyglottus</i>)	1
California Thrasher (<i>Toxostoma redivivum</i>)	2
European Starling (<i>Sturnus vulgaris</i>)	50
Black-tailed Gnatcatcher (<i>Poliopila melanura</i>)	5
Bewick's Wren (<i>Thryomanes bewickii</i>)	4
Cliff Swallow (<i>Petrochelidon pyrrhonota</i>)	3
Wrenit (<i>Chamaea fasciata</i>)	1
Blue Grosbeak (<i>Guiraca caerulea</i>)	3
Brown Towhee (<i>Pipilo fuscus</i>)	3
Red-winged Blackbird (<i>Agelaius phoeniceus</i>)	20
Brewer's Blackbird (<i>Euphages cyanocephalus</i>)	4

The Cactus Wren was detected south of the EastLake Greens/Trails property but within the EastLake property during the 1982 survey (WESTEC 1982). The Cactus Wren (*Campylorhynchus brunneicapillus*) is considered declining as a breeding species on the regional level (Everett 1979). Cactus Wrens are found on both the coastal and desert slopes of the County. On the coast, this species is found primarily in coastal sage scrub in stands of prickly pear or cholla and is of very local occurrence. Grinnell and Miller (1944) found this species much restricted in occurrence compared to its former distribution and that reduction has continued unabated. While this species currently has no official protected status, it is under taxonomic review and a distinct subspecies restricted to the coastal slope of southern California is likely to be accorded protected status.

The Blue Grosbeak (*Guiraca caerulea salicaria*) is a summer visitor to California that inhabits riparian scrub and woodland edges. It has no special regulatory status and is not severely threatened as some other birds dependent on riparian woodland. The Blue Grosbeak, however, is a declining species, as a result of the continuing loss of riparian habitat.

The Least Bell's Vireo (*Vireo bellii pusillus*) is listed as endangered by both the state and federal governments USFWS (1986). Formerly common and widespread in California and northwestern Baja California, the species now numbers between 300 and 400 pairs north of the border. It is restricted to riparian woodland and is most frequent in areas that combine an understory of dense young willows or mulefat with a canopy of tall willows. The Vireo's decline is due to loss of riparian habitat combined with parasitism by the Brown-headed Cowbird, which lays its eggs in Vireo nests, reducing the Vireo's reproductive success. The Least Bell's Vireo arrives in San Diego County in late March and early April and leaves for its wintering ground in September. It is known to winter only in southern Baja California. Because the vireos build their nests in average dense shrubbery 3 to 4 feet above the ground (Salatya 1984), they require young successional riparian habitat or older habitat with a dense understory. Therefore, riparian plant succession is an important factor in maintaining vireo habitat. Nests are also often placed along internal or external edges of riparian thickets (USFWS 1986). Data from Remsen (1977) and Goldwasser (1978) indicate that *Vireo bellii pusillus* has nested recently along Jamul Creek just east of Lower Otay Lake and along the Otay River. This species was not detected onsite due to lack of suitable habitat.

4.9.2 Impacts

If the Salt Creek drainage area is developed into an urban park, the disturbed riparian woodland and freshwater marsh communities will be eliminated. The area is planned, however, to be a native park with horse trails, and will remain in a predominantly native state. The area in which the pond once was, has been tilled and is not expected to hold an appreciable amount of water. Marsh vegetation can be expected to be transitory, adapting to the amount and extent of water in the drainage and pond. With the water-holding capacity of the pond greatly reduced, the extent of water-dependent vegetation would be expected to gradually decrease especially in dry years. As noted earlier, the riparian element is limited about the pond and does not extend south of the dam. Unless the pond were rehabilitated and enhanced, the area would be expected to become less attractive to sensitive riparian bird species which require marsh or riparian woodland habitat.

One could expect an increase in runoff into the local drainages from urban uses as the communities build out. Such increases in runoff can increase vegetative growth in the natural drainages and create natural wildlife corridors throughout the project area. The General Development Plan provides for a framework of open space along the major drainages throughout the property. Within this open space, a natural park will feature a

recreational equestrian facility with stables and training areas. Some modification of the soil will be required for this facility, and the facility will be studied in greater detail in SPA-level plans specific to the Trails.

The open space design benefits onsite resources and sets the precedent for natural areas to be continued offsite. Offsite continuation would possibly retain a large grove of eucalyptus located on Salt Creek adjacent to the northern property boundary; this grove is probably used by raptors for perching.

The Salt Creek drainage, aside from the freshwater marsh and tamarisk scrub, is disturbed. The Salt Creek drainage does, however, have a potential for becoming a high quality riparian habitat, if no development occurs within the drainage. If native or semi-native habitats are reconstructed or allowed to develop within the Salt Creek drainage, the effective blocking of this drainage with urban development could preclude such results. However, potential significant impacts to the existing habitats are not expected to occur. Potential biological impacts to the Salt Creek drainage cannot be specifically analyzed at this time. Further biological review will be required during the tentative map stage.

No sensitive animal species will be lost although low scrub habitat, albeit considered marginal for the black-tailed gnatcatcher, will be reduced. Cactus Wren habitat consisting of dense clumps of cholla is located south of the site and will, therefore, be retained. The general loss of open land upon development of EastLake Greens will adversely affect raptors which are attracted to the area to hunt. The loss of this foraging habitat, however, is not considered significant. The loss of the potential pond and associated marsh and riparian elements will eliminate potential habitat for a number of declining animal species which are attracted to or dependent on these particular habitats such as the Least Bells Vireo, Yellow Warbler, and two-striped garter snake.

4.9.3 Mitigation Measures

The proposed General Development Plan includes 20.1 acres of open space and 266 acres of parks and recreational uses (including 160 acre golf course). It is recommended that upon development of the EastLake Trails area, the park designation within the Salt Creek drainage be left in its native habitat and further enhanced to provide high-quality riparian habitat. Loss of general foraging habitat throughout the agricultural areas of the project site would be successfully mitigated by the enhancement of the Salt Creek drainage.

4.9.4 Significance of Impact

Specific impacts to biological resources of the Salt Creek drainage cannot be analyzed at this time. Annexation of the EastLake Trails area and the proposed pre-zone action will not significantly impact biological resources.

4.10 SOCIOECONOMIC FACTORS

4.10.1 Population

Existing Conditions

The project site is currently undeveloped and therefore has no population associated with it. It is located primarily in the 1980 Census Tract 133.05, approximately 13,927 acres consisting of most of the site and surrounding areas. Population in this tract is currently 8381 persons (County of San Diego 1986) while in 1980, 7552 persons lived in the area

(SANDAG 1985). The entire site is designated for urban growth, including residential development, by the City of Chula Vista.

The City of Chula Vista's population in 1986 was estimated to be 116,430 persons (SANDAG 1987). This is approximately 5.4 percent of the population estimated for the entire San Diego County and a 38.6 percent increase over Chula Vista's population in 1980 (in 1980, the City's population was 83,927 persons (SANDAG 1986)). Based on Series 7 Growth Forecasts prepared by the San Diego Association of Governments (SANDAG), population in the City of Chula Vista's present City limits is expected to reach 134,546 persons by the year 2000. This projection does not include the various annexations that are proposed or have been recently approved for inclusion within the City's incorporated limits.

The City of Chula Vista is located in the South Suburban Major Statistical Area (MSA) of San Diego County. MSAs are used by governmental agencies and development interests in the San Diego area for reporting aggregate statistical information. The South Suburban MSA (MSA 2, also known as the South Bay MSA) includes Chula Vista, Imperial Beach, San Ysidro, South San Diego, and Otay Mesa. According to SANDAG's 1986 report, Regional Economic Development Guide and Extract (EDGE), the MSA's population will grow by approximately 70 percent from the years 1980 to 2000, from 195,000 to 334,000 persons. The South Bay is projected to be the second fastest growing area in the region after North County (SANDAG 1986).

No threshold standards for population growth have been determined by the City of Chula Vista.

Impacts

The proposed EastLake Greens SPA Plan would allow a maximum of 3609 dwelling units to be built over the next 9 years. Based on a population generation rate of 2.7 persons per unit (SANDAG), approximately 9,744 people would be housed on the site. Project density would be 4.4 dwelling units/gross acre. The adopted EastLake I SPA, located adjacent to the site, provided for a density of 2.9 dwelling units/gross acre. The combined project density of the approved EastLake I SPA and the proposed EastLake Greens SPA would be 3.6 dwelling units/gross acre.

The Chula Vista EastLake Policy Plan, adopted by the City on September 7, 1982, specifies that "subject to the revised Land Use Element, landform characteristics, and other planning factors, an overall gross density of 3.7 dwellings per gross acre is proposed for the 3073-acre EastLake Community Planning Area" (City of Chula Vista 1982). Since the time of this original approval, the EastLake Community project area has been resurveyed and determined to be approximately 3219 acres. To keep the overall EastLake Community density below the 3.7 dwelling units/gross acre limit dwellings ultimately constructed on remaining acreage as part of EastLake II must not exceed 5546 units as stipulated in the proposed EastLake Policy Plan text revisions. Total dwelling units for the entire community may not exceed 11,910 dwelling units. EastLake Trails proposes 1,260 dwelling units and a population of 3,402 people (2.7 persons per 1,260 dwelling units).

With the exception of the increase in overall acreage of the EastLake Community, all population growth associated with the proposed project has been planned for by the City of Chula Vista. In addition, not all of the expected EastLake Community population has been included in SANDAG's Series 7 growth forecasts for Chula Vista because it does not include recent annexations. In the year 2000, the proposed EastLake Greens SPA would represent an increase over the SANDAG series forecasts if all of the growth projected by

SANDAG for Chula Vista occurs as well. Therefore, population associated with the EastLake Greens project could have cumulative adverse impacts on the City of Chula Vista; for example, the attainment of acceptable air quality is dependent upon conformance with SANDAG's Series growth forecasts.

Mitigation Measures

To mitigate impacts resulting from population increases, urban infrastructure and services must be properly phased to accommodate the growth. For this reason, a Public Facilities and Financing Plan will be submitted along with the proposed EastLake Greens SPA Plan. No unmitigated impacts, with the possible exception of air quality, should occur since the EastLake Greens project has been planned for by the City of Chula Vista (see Sections 4.2, 4.3, 4.7, and 4.8.3 for more detailed analyses and for proposed mitigation of traffic, public services, air quality, and employment impacts of the project).

4.10.2 Housing

Existing Conditions

Based on SANDAG Series 7, housing within the City of Chula Vista consisted of 42,203 occupied housing units in 1986. Based on population statistics compiled by SANDAG for the City of Chula Vista (SANDAG 1987), this would give the City a housing occupancy rate of 2.7 persons/dwelling unit. Occupied housing within the San Diego region in 1986 consisted of 771,082 housing units (SANDAG 1987); therefore, the City of Chula Vista's housing units represent 5.4 percent of the San Diego region's housing.

The vacancy rate for all dwelling units within the City of Chula Vista in 1985 was approximately 2.6 percent (Federal Home Loan Bank 1986). This is considered a housing shortage within the City (a 5 percent rate generally signifies a shortage of housing).

In 1982, the City of Chula Vista adopted a revised Housing Element for the City of Chula Vista. This document included a survey and identification of local housing needs (Part 1) and a list of housing goals, objectives, policies, and an action program (Part 2). In this document, the most pressing problem pertaining to housing in Chula Vista is listed as the rapid escalation in the cost of housing. This problem leads to the habitation of overcrowded and/or substandard housing units (City of Chula Vista 1982). From 1975 to 1979, the regional median income increased by 60 percent while the average market price for housing rose by over 100 percent. For low to moderate income households, housing is considered affordable if the monthly rental or mortgage payment is less than 25 percent of household income. In 1979, within the Chula Vista Planning Area, 20 percent of all households were spending more than 25 percent of their monthly income on housing (City of Chula Vista 1982). Persons especially affected by the high cost of housing include Chula Vista's elderly and ethnic minorities.

The primary goal of the City of Chula Vista's Housing Action Program is to provide decent housing in well-planned neighborhoods for all levels of income families and individuals and to increase the housing stock overall (City of Chula Vista 1982). One of the elements of the program is that developers of 50 units or more "devote a minimum of 10 percent of the said units to low and moderate income housing." In addition, the developer of 50 units or more must participate in an "Affirmative Fair Marketing Plan." The City also encourages the construction of a variety of housing stock and desires modern housing concepts enhanced by the provision of both internal and adjacent open space (City of Chula Vista 1982).

The City of Chula Vista has not determined threshold standards for housing needs.

Impacts

The proposed EastLake Greens project would include the construction of a maximum of 3609 dwelling units. These units would be a mixture of single- and multifamily units, attached and detached (see Figure 2-6 and Table 4-18). The project would have 1,269 detached units and 2340 attached units of which 500 would be duplexes, 359 townhouses, and 1,481 condominiums. The proposed development would increase Chula Vista's current housing stock by approximately 9 percent. Both the provision of additional dwelling units and the proposed variety of housing stock is consistent with the City of Chula Vista's housing goals.

The proposed EastLake Greens project would also comply with City policies through the provision of low to moderate income dwelling units. The project would also participate in an affirmative fair marketing plan. Parks and public open space would be provided within the development and a minimum of three single-family detached housing plans with varying heights, each with three different facade treatments per plan, and four types of multifamily and attached units would be utilized. Since the proposed EastLake Greens project in combination with EastLake I would increase the overall housing stock of Chula Vista and would provide a mix of housing types including a minimum of 10 percent low to moderate income housing, no significant adverse impacts to housing would occur.

Mitigation Measures

No significant impacts would occur and therefore no mitigation measures are necessary.

4.10.3 Employment

Existing Conditions

In 1986, approximately 35 percent of the total population within the City of Chula Vista, 38,246 persons, were employed (SANDAG 1987). Median household income was \$17,997 in 1986, roughly 5.2 percent higher than the San Diego region median of \$17,107 (SANDAG 1986:103). Approximately 8.3 percent of Chula Vista's work force are military personnel although military personnel represent only 3.6 percent of the total City of Chula Vista population (WESTEC 1985). Approximately 37 percent of the City's total population is forecast to be employed in the year 2000 (SANDAG 1985).

In the entire South Suburban or South Bay region (MSA 2), employment is expected to increase from 53,000 to 86,436 workers from 1986 to 2000. This is 23.7 percent and 29.0 percent of the population, respectively. (Over 30 percent of the population in the South Bay are under the age of 18.) Most of the employment increase will be in services and trades although it is forecast that there will be about 21,000 new industrial employees as well (SANDAG 1986). Of this employment increase, 64,000 of the trade and service jobs and 7000 of the new industrial jobs found in the year 2000 would be within the South Bay area. Thus, by the year 2000, 83.5 percent of all employees living within the South Bay area will be able to find jobs within their area. However, only 36.3 percent of the total population over the age of 18 will be employed (SANDAG 1986).

The City of Chula Vista has not determined any threshold standards for employment impacts.

Table 4-18

PROPOSED HOUSING FOR EASTLAKE GREENS

Density Designation and Range	Maximum DU	Acres	Housing Type	District
Low (L) 0 - 3	0	0	Residential Estate Residential Single-family Residential Single-family	RE-3 RS-7 RS-5
Low/Medium (LM) 3 - 6	1,051	200.9	Residential Planned Concept Residential Planned Concept	RP-8 RP-13
Medium (M) 6 - 11	832	106.5	Residential Condominium	RC-15
Medium High (MH) 11 - 18	817	65.7	Residential Condominium Residential Multifamily	RC-15 RC-22 RM-25
High (H) 18 - 27+	909	37.3	Residential Multifamily	RM-44

Source: Cinti and Associates 1988

Impacts

The EastLake Greens project would provide the City of Chula Vista with an additional 19.6 acres of commercial retail development and 27.8 acres of quasi-public developments such as churches, commercial recreation facilities, and schools. Using a generation factor of 36 employees per acre of retail uses (WESTEC 1985), the proposed Retail Center would result in 1,706 jobs plus those associated with the schools.

Most of the employment opportunities provided to the EastLake Community, however, are provided as part of the EastLake I SPA. The EastLake I development provides an 157.3-acre employment park located directly north of the EastLake Greens site across Telegraph Canyon Road. This park would help to provide employment opportunities for the EastLake Greens residents as well. It was concluded, when the original EastLake Planned Community was proposed, that approximately 32 percent of the future EastLake residents would need to travel outside the community for employment (WESTEC 1982). This was not perceived to be a significant impact. Since the proposed EastLake Greens employment opportunities are higher than those proposed for the site in the original, adopted EastLake Community plan, no significant employment impacts are expected.

Mitigation Measures

No mitigation measures are necessary because the project as proposed provides the employment opportunities anticipated when the EastLake Community plan was approved.

4.10.4 Analysis of Significance

The project would result in population growth that has been planned for by the City of Chula Vista but that has not been incorporated into SANDAG's growth forecasts. Impacts to traffic, public services, and employment can be mitigated as discussed in other sections of this report. Significant air quality impacts could still occur. No significant housing or employment impacts would occur.

4.11 FISCAL ANALYSIS

The City of Chula Vista requires the use of fiscal impact reports for all projects as determined in their threshold standard policy. Public Affairs Consultants, Inc. was retained by WESTEC Services, Inc. to prepare an analysis of the fiscal impact on the City of Chula Vista that could result from the EastLake Greens/Trails project. This analysis considered all known operating costs and revenues that might be attributed to the development and annexation of the EastLake Greens/Trails area. The analysis also covered the added capital costs and proposed methods of financing. The Public Affairs Consultants, Inc. fiscal report is included in this EIR as Appendix D. Sections of that report have been extracted or summarized in this section.

4.11.1 Existing Conditions

The site in its present vacant state generates almost no revenue or cost to the City of Chula Vista. The City of Chula Vista's preliminary 1988/89 budget is \$35,747,192. These costs have been allocated by Public Affairs Consultants, Inc. to 18 "direct service" activities to allow a determination of which areas would be impacted by the proposed development.

City operating costs were projected based on a computer model that took into consideration the fiscal year 1988-89 budget of the City and input received from various City operating departments. City revenue projections were based on the existing revenue sources of the

City. Computer modelling of the relationship of individual revenue accounts to population, land use and other factors was developed by Public Affairs Consultants, Inc. to simulate the changes in revenue that could be expected over the development of this project. A separate model of assessed valuation/property tax changes was developed to project the effect on City property tax revenues based on the developer's projection of buildout rate and product pricing. This assessed valuation/property tax model also took into consideration the split between the portion of the EastLake Greens and Trails that now lies within the City limits and that portion which will need to be annexed to the City prior to its development. The 18 activities and their associated 1988-89 direct service budgeted expenditures are listed in Table 4-19.

4.11.2 Impacts

The development of EastLake Greens and Trails is projected to have an overall positive fiscal impact on the City of Chula Vista. Operating revenues are projected to exceed operating costs over the 11 year period of time analyzed in this study.

The EastLake Greens and Trails development is expected to have a neutral effect on the City's capital expenditures and revenues, in that the development will provide public facilities financed either from the developer of the property or from the property itself through the use of public debt mechanisms tied to the property (e.g., 1913 Act assessment districts). A separate Public Facilities and Financing Plan is being prepared for the EastLake Greens SPA that will detail the methods to be used to finance the affected public facilities. A similar plan will be prepared for the EastLake Trails during the development of the SPA for that portion of the project.

Table 4-20 shows the projected combined operating funds costs and revenues over the buildout period and for four years beyond. The funds included in this grouping are the General Fund, Special Gas Tax, Traffic Safety Fund and State Library Act Fund.

Project costs to the City of Chula Vista would occur in two ways: one-time costs and on-going operational or maintenance costs. One-time costs are related to planning, building inspections, engineering services, and fire inspections. Fees for building, plumbing, electrical, housing, and sewer connection permits along with charges for environmental reviews, plan checks, zoning, and engineering fees have been established by the City to recover costs incurred for these activities. The one-time revenues from these sources are expected to offset the City's expenditures resulting in no net cost to the City.

Table 4-21 summarizes the projected on-going costs. At full project buildout (Year 11) generation of an annual on-going cost to the City of \$2,848,501. These cost projections include such items as street operations; street, sewer, water, and park maintenance; and police, fire, sewer, and library service.

The project would also generate ongoing revenues on an annual basis. These funds are generated by such items as property taxes, sales and use taxes, franchise taxes, property transfer taxes, utility user taxes, and motor vehicle in-lieu taxes. Other minor sources of revenue include business licenses, bicycle licenses, animal licenses, cigarette taxes, fines, forfeitures and penalties, public swimming pool user fees, and other recreation programs. The City places its idle funds in interest-bearing investments. Generally, as the City's total revenue increases, the amount of money available for investment also increases. Therefore, additional revenue would be available to the City as a result of the EastLake Greens/Trails project from investment earnings on project-generated funds.

Table 4-19

**CITY OF CHULA VISTA
1988-89 GENERAL FUND
DIRECT SERVICE ACTIVITIES' FULL COST**

Activity/Department	1988-89 Full Cost
General Government and Non-Departmental	\$ 1,105,712
Planning	1,086,301
Community Development	747,544
Police/Animal Regulation	13,460,289
Fire Protection	5,559,511
Building and Housing	781,854
Public Works/Engineering	
Engineering	
Design and Construction	1,181,280
Land Development	712,458
Traffic Engineering	445,852
Public Works	
Street Maintenance	1,368,221
Street Sweeping	253,700
Street Tree Maintenance	569,816
Traffic Operations	374,823
Traffic Signal and Street Light Maintenance	1,088,293
Sewer Systems Maintenance	894,800
Pump Station Maintenance	167,922
Parks and Recreation	3,509,232
Library	<u>2,439,583</u>
 TOTAL	 <u>\$ 35,747,192</u>

Source: City of Chula Vista 1988-89 Adopted Budget; Public Affairs Consultants, Inc.

Table 4-20

PROJECTED ANNUAL OPERATING REVENUES AND COSTS
(IN CONSTANT 1988 \$)

Fiscal Year	Revenue	Cost	Annual Net Impact	Cumulative Net Impact
1990	813,870	589,127	224,743	224,743
1991	1,212,397	802,500	409,896	634,639
1992	1,686,072	1,185,528	500,544	1,135,183
1993	2,147,120	1,627,432	519,688	1,654,872
1994	2,540,601	2,066,562	474,039	2,128,910
1995	2,854,601	2,479,483	375,028	2,503,938
1996	2,929,517	2,746,217	183,300	2,687,238
1997	2,896,925	2,815,925	81,000	2,768,238
1998	2,896,879	2,815,925	80,954	2,849,192
1999	2,894,436	2,848,501	45,935	2,895,127
2000	2,894,436	2,484,501	45,935	2,941,062

Source: Public Affairs consultants, Inc., July 1988.

Table 4-21

SUMMARY OF ON-GOING ANNUAL CITY COST INCREMENTS
RESULTING FROM DEVELOPMENT OF
EASTLAKE GREENS AND TRAILS
(IN CONSTANT 1988 \$)

Fiscal Year	Cost
1990	\$ 589,127
1991	802,500
1992	1,185,528
1993	1,627,432
1994	2,066,562
1995	2,479,483
1996	2,746,217
1997	2,815,925
1998	2,848,501
2000	2,848,501

The EastLake Greens/Trails project would also result in moneys available to the City from certain special funds. These include the Traffic Safety Fund, which receives revenue from fines for violations of the Vehicle Code; the State Library Act Fund, which receives State library funding for expenditures over a fixed per capita amount; the Sewer Service Revenue Fund, based on sewer service charges; and the Special Gas Tax Fund, which is distributed by the State according to a set of formulas that consider the population of Counties compared to the State total, the population of cities to total County population, and the assessed value of cities compared to the total assessed value within the County. The total ongoing revenues by source of the EastLake Greens project and the basis for these projections are presented in Appendix D, Chapter III.

The EastLake Greens/Trails residential community would result in a positive net fiscal impact, therefore, no adverse fiscal impacts would occur as a result of the proposed project.

4.11.3 Mitigation Measures

No significant impacts are associated with the fiscal aspects of the project; therefore, no mitigation is necessary. The project should be monitored to assure positive fiscal effects.

4.11.4 Analysis of Significance

Based on the fiscal analysis prepared by Public Affairs Consultants, the EastLake Greens/Trails 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.

4.12 NOISE

The following acoustical analysis focused on the potential noise impacts associated with project buildout. The roadways planned for the development include State Route 125 (SR-125), the eastern extension of Telegraph Canyon Road, the southern extension of EastLake Parkway, Hunt Parkway, Orange Avenue, and the internal roads and entry ways (Figure 4-14). The short-term cumulative traffic conditions with SR-125 built-out as a four-lane freeway from SR-54 to Telegraph Canyon Road was used in the analysis to project worst case noise levels for the development.

4.12.1 Existing Conditions

The site is currently undeveloped and the only roadway constructed adjacent to the site is Telegraph Canyon Road and the current primary source of noise in the vicinity of the proposed project is vehicular traffic along the road. The only onsite noise generator is seasonal agricultural operations.

Community noise levels are generally presented in terms of CNEL (Community Noise Equivalent Level). CNEL is the average equivalent A-weighted sound level during a 24-hour day, and is calculated by adding 5 decibels to sound levels in the evening (7 p.m. to 10 p.m.) and adding 10 decibels to sound levels at night (10 p.m. to 7 a.m.). The A-weighted scale measures noise levels corresponding to the human hearing range.

The City of Chula Vista requires that the CNEL of exterior living areas (yards and patios) for residential land uses and for outdoor recreation areas (parklands) not exceed 65 dB(A). Exterior noise levels generally considered acceptable for nonresidential land uses are as follows: offices, 70 dB(A) CNEL; industrial and commercial, 75 dB(A) CNEL. In

addition, for multi-family residential projects, the California Noise Insulation Standard (California Administrative Code, Title 25, Chapter I, Subchapter I, Article 4) requires that interior noise levels in multi-family residential living spaces not exceed a CNEL of 45 dB(A). The City of Chula Vista also applies this interior noise standard to single-family residential homes. With windows closed, typical residential units can be expected to yield between 15 and 20 dB of attenuation. Therefore, residential development in areas above 60 dB CNEL could result in adverse interior noise levels.

Existing noise conditions are not considered significant because the proposed project site is undeveloped, and onsite generators (i.e., agricultural activities) do not create a significant amount of noise on a regular basis. Offsite noise generators are too distant from the site to generate significant noise onsite, and sound attenuation is provided by the complexity of the existing terrain.

4.12.2 Impacts

The noise analysis was conducted with the Federal Highway Administration's Stamina 2.0 noise prediction model. The use of this model for roadway noise level analyses has been accepted in the environmental assessment industry as an accurate tool, having been validated with empirical study and field investigation. The Stamina 2.0 program accepts as input 1) modeling of the pad elevations of the proposed development and intervening topography; 2) roadway locations and grades; and 3) 40 noise receptor points. A grid was superimposed over a 1 inch = 400 feet scale map, and the topography, roadways, and receptor points were plotted with X, Y, and Z coordinates to identify relative locations. All Z coordinates for receptors are increased by 5 feet above ground elevations to model the approximate height of the human ear. The results of the noise study are computed in equivalent noise levels (L_{eq}). These L_{eq} are then converted into CNEL. The model measured future noise levels generated by future traffic on State Route 125, Telegraph Canyon Road, Orange Avenue, Hunte Parkway, EastLake Parkway, the internal roads, and entry ways.

To determine the maximum noise levels that could be experienced onsite, average daily traffic volumes, based on a traffic analysis prepared by Willdan Associates (March 1989) for EastLake Greens and Trails, were utilized. Tables 4-22 and 4-23 contain traffic volumes that represent key portions of the proposed roadways, although in some cases not the entire roadway. Four different periods, i.e., peak, day, evening, and night, constitute the time periods used to calculate CNEL. The peak hours of the day represent the highest traffic volumes, and thus the highest noise levels. The analysis assumed that cars would comprise 95 percent of the traffic, medium trucks 3.7 percent of the traffic, and heavy trucks 1.3 percent of the traffic (Goldhammer 1985). Average roadway speeds were assumed to be 50 mph on Telegraph Canyon Road, 50 mph on Orange Avenue, 40 mph for both entry roads, 45 mph for EastLake Parkway, 35 mph on the internal roads, and 45 mph on Hunte Parkway. For proposed roadway grades greater than 4 percent, i.e., the internal loop road and the central Golfcourse Road, the roadways were weighted to account for the additional vehicular noise generated on the uphill portion of the segment.

The preliminary grading plan for EastLake Greens was divided into two sections, an east and west side, which allowed additional noise receptor points to be analyzed. The east portion contained all the roadways east of the Telegraph Canyon pump station (on the north) and half of Orange Avenue (on the south) while the west portion was comprised of all those roadways west of the division. There is a small area south of Orange Avenue is designated Future Urban Land, and no grading plans are currently proposed. When plans are prepared for this area, a detailed acoustical analysis will be required to determine the future onsite noise levels for those portions of the property.

Table 4-22

PROJECT BUILDOUT AVERAGE DAILY TRAFFIC VOLUMES
(WEST SIDE)

	Telegraph Canyon (Between 125 and Eastlake Parkway) 6-Lane Prime Arterial	Telegraph Canyon (East of Eastlake Parkway) 4-Lane Prune Arterial	Eastlake Parkway (Between Telegraph Canyon and North Entry Road) 4-Lane Major	Eastlake Parkway South of North Entry Road) 4-Lane Major	North Entry Road 4-Lane Major	South Entry Road 4-Lane Major	Loop Road (North and South of Entries) 2-Lane Collector
	57,000	41,000	23,600	10,600	14,400	7,000	10,000
<u>Total ADT</u>	57,000	41,000	23,600	10,600	14,400	7,000	10,000
<u>Peak ADT</u>							
Cars	4,587	3,299	1,765	793	1,077	523	734
Medium Trucks	179	129	69	31	42	20	29
Heavy Trucks	63	45	24	11	15	7	10
<u>Day ADT</u>							
Cars	3,238	2,329	1,280	575	781	380	533
Medium Trucks	126	91	50	22	30	14	21
Heavy Trucks	44	32	18	8	11	5	7
<u>Evening ADT</u>							
Cars	2,014	1,449	1,020	458	622	303	511
Medium Trucks	79	56	40	18	24	12	20
Heavy Trucks	28	20	14	6	9	4	7
<u>Night ADT</u>							
Cars	579	417	419	188	256	124	112
Medium Trucks	23	16	16	7	10	5	4
Heavy Trucks	8	6	6	3	4	2	2

Table 4-23

PROJECT BUILDOUT AVERAGE DAILY TRAFFIC VOLUMES
(EAST SIDE)

	Telegraph Canyon (West of Hunie Parkway) Prime Arterial	Hunie Parkway (South of Telegraph Canyon) 2-Lane Collector	Hunie Parkway (Between Loop Road entries) 4-Lane Major	Orange Avenue (West of Hunie Parkway) Prime Arterial	Northern Loop Road (West of Hunie Parkway) 2-Lane Collector	(Golfcourse Road 4-Lane Collector
<u>Total ADT</u>	17,000	20,000	8,000	12,000	8,000	7,000
<u>Peak ADT</u>						
Cars	1,368	1,495	598	966	588	514
Medium Trucks	53	58	23	38	23	20
Heavy Trucks	19	21	8	13	8	7
<u>Day ADT</u>						
Cars	966	1,085	434	682	426	373
Medium Trucks	38	42	17	27	17	15
Heavy Trucks	13	15	6	9	6	5
<u>Evening ADT</u>						
Cars	601	865	346	424	409	358
Medium Trucks	23	34	14	17	16	14
Heavy Trucks	8	12	5	6	6	5
<u>Night ADT</u>						
Cars	173	355	142	122	90	79
Medium Trucks	7	14	6	5	4	3
Heavy Trucks	2	5	2	2	1	1

Noise modeling indicates that future noise levels in the EastLake Greens portion of the development would exceed 65 dB(A) in portions of the proposed residential areas adjacent to the EastLake Parkway and between the northern and southern entry roads, and the park (P-1) proposed adjacent to the high school. Exterior noise levels above 65 dB(A) CNEL are considered incompatible with both residential and parkland development; significant noise impacts could occur onsite if noise levels are not mitigated during project buildout.

Figure 4-16 illustrates the noise contours associated with the projected future traffic without mitigation. The contours reflect the variable topography proposed onsite and the weighting due to larger roadway grades. These contours do not reflect the attenuation resulting from building onsite. Assuming a 65 to 90 percent coverage of each lot width by buildings, a 5 dB(A) drop in noise levels would occur beyond the first row of houses. For each additional row of homes, a 1.5 dB(A) attenuation occurs until a total of 10 dB(A) reduction is obtained (FHWA 1978), and building shielding in residential areas would attenuate the noise levels at the interior residential portions of the site to below 60 dB(A) CNEL.

Topography proposed in the grading plans would effectively shield many of the areas in which standards would be exceeded. For the project to comply with City of Chula Vista noise standards, however, additional attenuation would need to be provided in the portions of the proposed residential areas which exceed the City standards, particularly those residences at the edges of the development. This is especially true for areas in which there is little topographic relief.

In addition to the exterior impacts, those residential areas exposed to exterior noise levels greater than 60 dB(A) CNEL may exceed the City and State's interior noise level requirements. Typical building construction attenuates interior noise levels by approximately 20 dB. Subsequent to construction of the proposed barriers and the attenuation through building shielding, portions of the project site may be exposed to exterior noise levels greater than 60 dB(A) (Figure 4-17). Consequently, interior noise levels may exceed the 45 CNEL standards, creating a potentially significant impact.

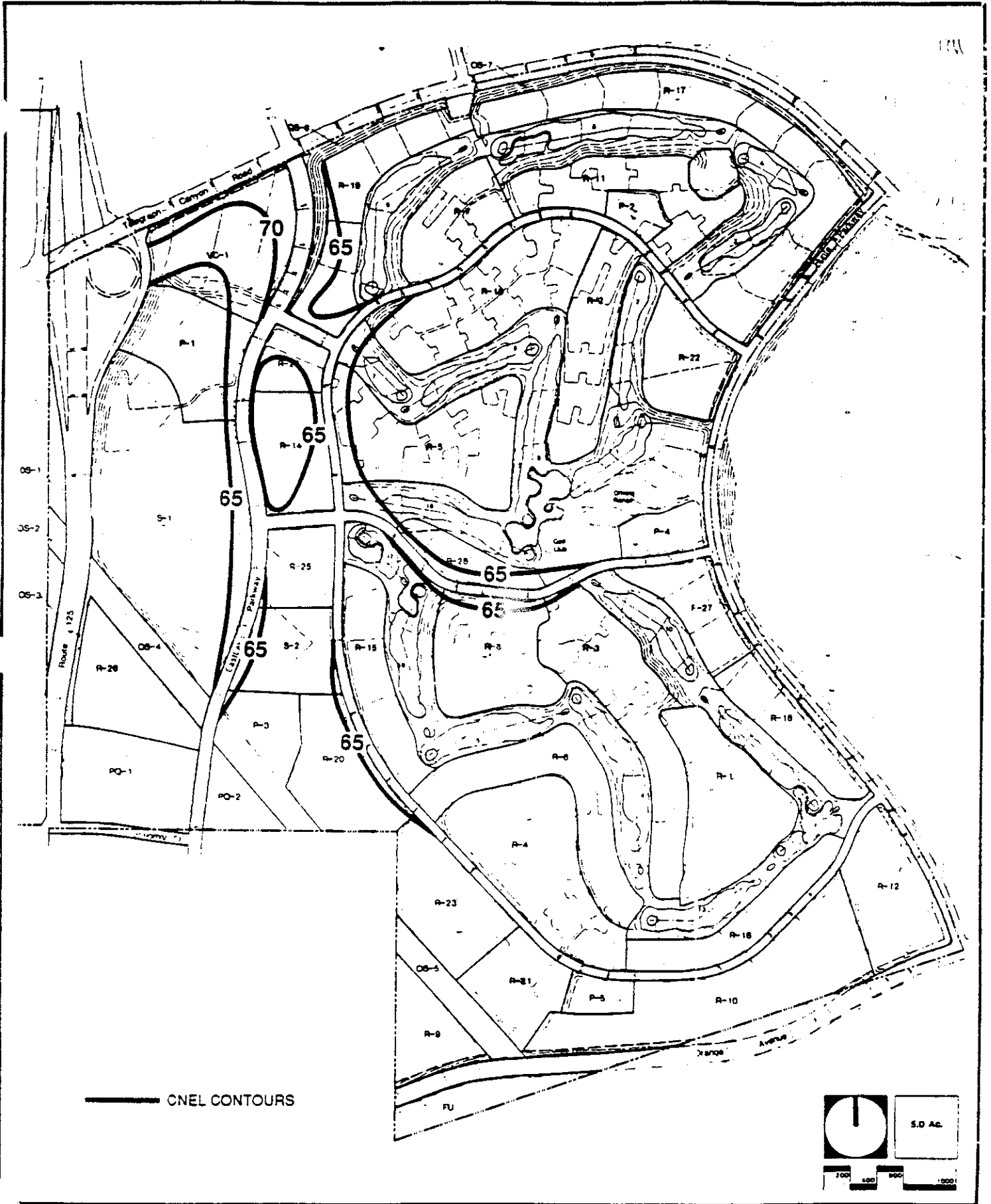
A preliminary estimate of future noise levels in the EastLake Trails portion of the project used the maximum traffic volumes anticipated for the three primary roadways: Telegraph Canyon Road, Orange Avenue, and the internal loop road. No development plans are currently proposed for EastLake Trails, and therefore these three roadways were modelled using straight line segments excluding topographic effects, roadway grade adjustments, and cumulative effects at intersections. The approximate location of the 65 dB(A) and 60 dB(A) CNEL contours from the centerline of each of the roadways was calculated and are contained in Table 4-24.

Table 4-24

**PRELIMINARY NOISE CONTOUR DISTANCES
FOR ROADWAYS WITHIN EASTLAKE TRAILS**

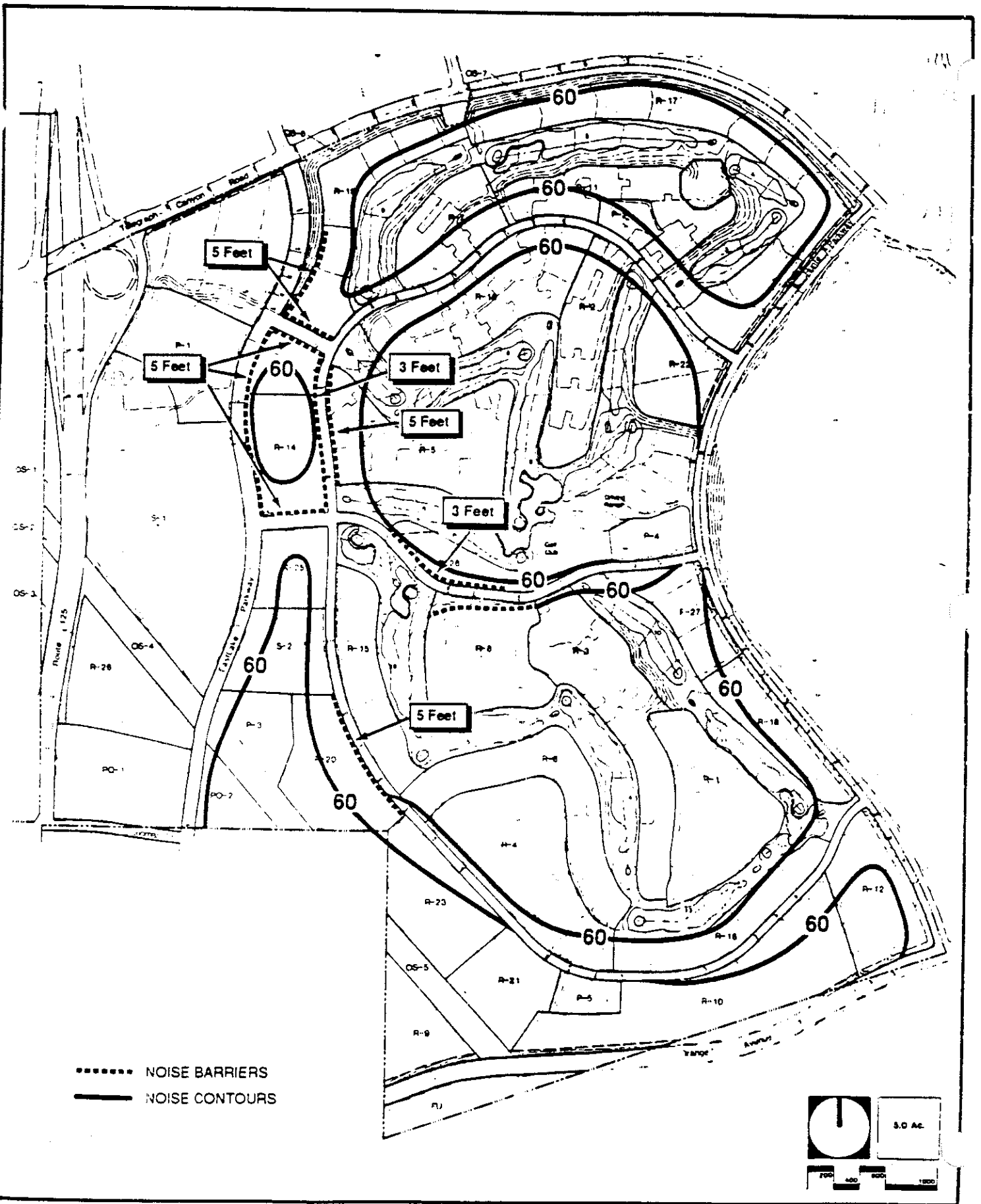
<u>Roadway</u>	<u>65 dB(A) CNEL*</u>	<u>60 dB(A) CNEL*</u>
Telegraph Canyon Road	100 feet	270 feet
Orange Avenue	115 feet	315 feet
Internal Loop Road	70 feet	200 feet

*Distance in feet from the centerline of the roadway.



Future Unmitigated Noise Environment

**FIGURE
4-16**



Noise Barriers Required to Mitigate Future Noise Levels

**FIGURE
4-17**

If residential or parkland development occurs within the areas exposed to noise levels greater than 65 dB(A), significant noise impacts would occur. Although the potential for adverse impact exists, no impacts can be assessed until detailed site plans are prepared for this portion of the project.

4.12.3 Mitigation Measures

The Stamina 2.0 model was used to determine the effectiveness of walls and/or berms in reducing noise exposure to acceptable levels onsite.

The applicant has proposed an optional 5-foot fence enclosing the perimeter of the residential boundary (Figure 2-10), and the 5-foot wall height was factored into the model to analyze the effectiveness of such a wall on the significant noise impacts projected onsite. In some cases, a 5-foot wall height was determined not to be required and a lower wall height was evaluated.

It was determined that a 5-foot barrier along the top of slope on portions of the eastern side of EastLake Parkway and portions of the internal loop road, and contiguous to the northern and southern entry roads, would reduce projected onsite noise levels below 65 dB(A) CNEL (Figure 4-17). A 3-foot barrier would also be required along the central golfcourse road to further attenuate onsite noise levels. Noise levels at the park could be reduced through the incorporation of barriers of minimal height (i.e., 1 to 2 feet). Walls are not recommended because of aesthetic considerations and because the attenuation required is only two decibels. Attenuation at the park could be achieved by raising the pad elevations near the contributing roadways by 2 feet instead of incorporating a barrier. The barriers along residential portions of the site should consist of walls, earth berms, or a combination of walls and berms. Noise levels above 65 dB(A) and below 75 dB(A) CNEL are considered compatible with the proposed commercial area in the northwest corner of the project area and no barriers are required to attenuate the noise levels in this area of the site.

Based on the current grading plan, the identified noise walls would mitigate the projected exterior noise levels below the required 65 CNEL standard and to a level of insignificance with the exception of the park where slight exceedances would occur. If the pad elevation is raised, as recommended, no adverse noise impacts would occur onsite. Additional acoustical analyses will be required for the areas designated as Future Urban Land and for the EastLake Trails portion of the development once site plans with project details (i.e., building locations, heights, orientations, and pad elevations) are prepared.

As far as interior noise levels, any exterior residential areas exposed to 60 CNEL or greater have the potential to exceed the interior standard of 45 CNEL. For those portions of the site (identified in Figure 4-17) an interior acoustical analysis would be required, once building plans and site plans are made available, to ensure the use of appropriate construction materials to attenuate the interior noise levels to below a level of significance.

4.12.4 Analysis of Significance

Noise modeling of the future onsite noise levels indicates that potentially significant noise impacts would occur in portions of the proposed residential areas. For the project to comply with City noise standards, additional attenuation would be needed in the areas exceeding the City standards. Portions of the applicant-proposed wall, which encloses the perimeter of the residential boundary, would effectively mitigate most of the projected onsite noise impacts to a level of insignificance. Additional acoustical analysis will be required once plans are prepared for those portions of the site that do not currently have

development plans proposed (Future Urban areas and EastLake Trails) to determine future noise levels and appropriate mitigation, if measures are required.

4.13 SUMMARY OF ANALYSIS OF THRESHOLD/STANDARDS

The analysis of environmental topics that are covered by the City of Chula Vista's Threshold/Standards and Growth Oversight Committee Policy (1987) are summarized below.

4.13.1 Transportation and Circulation

Impact

The project is projected to add a significant number of average daily trips (ADT) to the internal and external street system.

Discussion

Issuance of building permits is tied to the construction of all necessary street improvements both on and off-site as listed in Public Facilities Financing Plan. Chula Vista Transit services will be extended to the project. An extensive pedestrian and bicycle trail system will provide transportation alternatives within the project. Carpooling will be encouraged by the construction of a 120 space parking facility within EastLake I. All roads within the project will be constructed to the ultimate City standards. A fee in excess of \$2,000 per dwelling unit is being paid toward the completion of regional transportation facilities.

The EastLake II project can develop to 3,753 dwelling units and 15 acres of commercial uses prior to the construction of State Route 125, assuming land use phasing and street improvements are consistent with the assumptions utilized in the draft East Chula Vista Transportation Phasing Plan. EastLake II can fully build out if State Route 125 is constructed between Telegraph Canyon Road and State Route 54 as a four-lane freeway to achieve acceptable levels of service within the study area. "Quality of Life thresholds" would be maintained

Significance

With the implementation of proposed measures, there will be no significant adverse impacts.

4.13.2 Educational Facilities

Impact

New students will be generated for both the elementary and secondary school systems.

Discussion

One elementary and one high school will be constructed within the project area. School construction is phased concurrently with residential development. Impacts will be mitigated to the satisfaction of school districts in context of existing binding agreements regarding school sites and financing.

Significance

There will be no significant impacts.

4.13.3 Energy Supply and Conservation

Impact

Increased energy supply will be necessary to serve the project.

Discussion

Present SDG&E supply is sufficient to meet project needs.

Significance

There will be no adverse impacts.

4.13.4 Fire Protection

Impact

Additional demands will necessitate the expansion of existing facilities. Onsite water pressure is currently inadequate for fire protection.

Discussion

Expansion of the facilities with the construction of a new fire station is being planned in part through fees collected from EastLake. Additional stations are proposed in the vicinity of the project. Pressure reduction valves will be installed either on-site or on the fire trucks. Fire station site is reserved adjacent to the project.

Significance

There will be no adverse impacts.

4.13.5 Fiscal Analysis

Impact

Operating and capital costs will be incurred.

Discussion

Operating revenues are projected to exceed operating costs over the 11 year period of time studied. Capital costs will be provided either by EastLake Development Company or the property itself through the use of public debt mechanisms tied to the property.

Significance

Increased net revenues to the City will result in a beneficial impact.

4.13.6 Library Services

Impact

Development will increase the demand on library facilities.

Discussion

A one-acre site has been reserved adjacent to the project for the development of a new library. Plans for the construction of the new facility will follow concurrently with residential development. Space for an interim storefront library will be provided at no cost to the City for a period of 5 years. Additional funding for staffing and purchase of books will be provided.

Significance

Impacts will be mitigated through the dedication of a site and construction of an interim facility. City is contemplating city-wide impact fee for permanent library construction.

4.13.7 Parks and Recreation Facilities

Impact

Development will increase the demand for additional parkland.

Discussion

Over 42-acres of neighborhood and community parks will be featured in the project. An extensive pedestrian and bicycle trail system will be constructed. An 18-hole 160-acre golf course and country club will be incorporated into the project. The requirement for 3-acres of park per 1,000 residents will be exceeded.

Significance

No potential impacts at this time.

4.13.8 Police Protection

Impact

Additional demands will be placed on an undermanned police beat.

Discussion

Additional police officers will be added using funds generated by the project and other similar developments. A police staff room within EastLake I will also serve this project.

Significance

Mitigated to a level of insignificance.

4.13.9 Sewer Services

Impacts

There are presently no sewer facilities on the property. The San Diego Metropolitan Sewerage System (METRO) has capacity sufficient to serve the proposed project.

Discussion

A number of on site improvements will be constructed to transport project-generated waste via City of Chula Vista Sewage facilities into the METRO system. An interim pump station will be constructed while additional decisions regarding the construction of an onsite water reclamation plant or offsite sewer lines are being considered. Further regional sewer capacity requirements are under evaluation and mitigation will be ensured through the Public Facilities Financing Plan.

Significance

Construction of additional sewage facilities will mitigate project specific impacts.

4.13.10 Water Availability

Impact

An adequate water supply will be necessary for domestic and reclaimed water demands. Regional water consumption will increase.

Discussion

Adequate water storage and distribution facilities will be constructed in conjunction with the project development. A site has been offered for the construction of a new 50 million gallon reservoir. Low flow and water efficient plumbing will be incorporated into the project design. Water conservation measures including automatic moisture sensing irrigation and use of reclaimed water for on-site grading and irrigation purposed will be undertaken.

Significance

Project development represents an adverse though not a significant impact.

4.13.11 Air Quality

Impact

Increase in stationary and mobile emissions associated with population growth.

Discussion

Watering, enforcement of a speed limit on unpaved roads and use of only specially equipped construction equipment is planned to reduce the dust and emissions generated during construction. All intersections affected by the project maintained at current level or improved to provide LOS C or better. Development of bicycle and pedestrian trails to encourage environmentally sensitive transit. Public transit routes and bus stops located throughout the project.

Significance

Potentially significant cumulative impacts.

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SECTION 5 REQUIRED CEQA SECTIONS

5.1 GROWTH INDUCEMENT

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 east of Interstate 805. The City desires to maintain control over the pace and quality of development in order to assure that growth is orderly and meets City standards.

The County of San Diego Regional Land Use Element and Map (August 1984) contains several goals regarding urban growth. The thrust of these goals is to manage urban growth so that balanced communities are planned appropriately with facilities and urban levels of service. The Land Use Element also states that future urban growth should be located contiguous to existing urban areas while the rural character of nonurban lands should be retained (County of San Diego 1984:11-2).

The proposed EastLake Greens project consists of a golf course-oriented residential community with associated commercial, recreational, and public facilities. EastLake Greens would be the third residential neighborhood to be developed within the planned community of EastLake. The first two neighborhoods, EastLake Hills and EastLake Shores, as well as the commercial and industrial districts of EastLake Village Center and EastLake Business Center, are located north of the project site. These areas are currently under construction, with a phased development schedule for completion over the next 8 to 10 years. Land to the east, south, and west of the EastLake Greens/Trails site is largely undeveloped, with much of it used to produce barley. The closest major developments (excluding the community of EastLake) are the Otay Lakes Lodge Mobile Home Park, the College Area Estates single-family housing development and the Southwestern College campus. All of these are located 0.5 to 1.5 miles west of the project site. The development of EastLake Greens/Trails calls for a maximum of 4869 dwelling units resulting in approximately 13,146.3 residents (using SANDAG's 2.7 residents/du). The EastLake Greens/Trails community would require facilities, improvements, and extensions to provide urban levels of service including water, sewer, educational facilities, circulation, law enforcement, and fire protection.

The EastLake Greens water system may have potential for growth inducement to areas designated for agricultural and future urban use lying east, south, and west of the project site. Proposed improvements include both on-and-offsite reservoir construction, pump station improvement and pipeline installation. Connections to these facilities would allow future growth for developments to the east, south, and west.

Initial development of the EastLake Greens sewage system would not present a significant growth-inducing impact, as there is available capacity within the existing 15-inch Telegraph Canyon trunk sewer. However, proposed project site development would eventually exhaust capacity in the Telegraph Canyon trunk requiring the construction of either additional sewer lines or a separate treatment facility. Such eventual improvements would facilitate future growth for additional developments in surrounding areas.

The development plans for EastLake Greens call for the construction of one elementary school, one high school, and additional public and commercial facilities. The presence of schools, shopping areas, urban levels of police and fire protection, and some employment opportunities could encourage growth of adjacent undeveloped areas by making these facilities more convenient than other facilities further west.

An extensive circulation system is proposed as part of the EastLake Greens SPA Plan. The new roads and improvements to existing roadways would provide and improve access to many on and offsite areas. SR 125 would be a four-lane divided road extending from Route 54 near the Sweetwater Reservoir south along the western site boundary to Route 117 to connect with the second border crossing. SR 125 would become a major access route through land which is already zoned low to medium-density residential or future urban, however, so development of the route adjacent to EastLake Greens would not be considered a growth-inducing impact. Orange Avenue would be similarly extended through land designated future urban to the east of the project site. The extension of Hunte Parkway south of the project site into land designated for agricultural use, however, could potentially encourage growth of a development which could connect to the new roadway.

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 to 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, and an open space and park system and community golf course are proposed. A circulation system, including pedestrian and bicycle trails connecting various portions of the community, is also planned.

Implementation of the proposed EastLake Greens SPA Plan would likely have some growth inducing impacts on undeveloped land in the project vicinity. Approval of the project may also encourage any potential adjacent developments to occur sooner than would otherwise take place without the project. However, since much of the project site is surrounded by land zoned for urban growth, the development of EastLake Greens would not conflict with the 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 Greens as an urban community in an area projected primarily for future urban growth does not present a significant adverse growth-inducing impact.

The proposed annexation of the 400.1 acre EastLake Trails site into the City of Chula Vista entails a pre-zone and general plan amendment as well as an amendment to the EastLake Policy Plan. Annexation of the project site does not induce growth that has not previously been planned for, as the site is a part of the City's sphere influence and has been included in planning and forecasting for the future by the City of Chula Vista. Annexation may encourage development to occur more rapidly as result of the provision of public services that are more readily available within the city boundaries. Public services may provide an opportunity for the development of higher densities, however the majority of these services, would be used directly by residents of EastLake. Growth inducement as a result of annexation and the subsequent extension of services would not occur.

5.2 EFFECTS FOUND NOT TO BE SIGNIFICANT

5.2.1 Biological Resources

Essentially the entire project site is regularly plowed and dry farmed for barley. Thus, significant vegetative habitat and associated biological resources are not present on the site. A biological survey was conducted on the site as a portion of the Volume 1 EastLake EIR. This investigation concluded that potential biological impacts for the EastLake project site (including the EastLake Greens/Trails property) were not considered significant (WESTEC 1982). Further biological assessment will be required for the Salt Creek drainage upon submittal of tentative map for the EastLake Trails site.

5.2.2 Mineral Resources

A literature search and field investigation of the project site were conducted by Leighton and Associates (1979). This analysis concluded that no known or expected mineral deposits occur onsite. Thus, no significant impacts to mineral resources would occur as a result of project site development.

5.2.3 Archaeological/Historical Resources

A number of cultural resource investigations have been conducted on the project site in association with the proposed development and the existing onsite San Diego Gas & Electric easement (WESTEC 1982). While several cultural sites were identified during these investigations, mitigation sufficient to render potential impacts insignificant were designed and subsequently implemented. Thus, no significant adverse impacts to archaeological/historical resources would occur as a result of project implementation.

5.2.4 Water Availability

Even through 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.

5.2.5 Library Services

Currently, three library facilities are operating within the project vicinity. These include a central municipal library in the City of Chula Vista and two branches of the San Diego County library located south of Chula Vista. Project development would result in a local population increase of nearly 13,000 residents (at build out of EastLake Trails), representing an adverse but insignificant impact on pertinent library facilities.

5.2.6 Energy Supplies and Conservation

The project would result in an increase in the consumption of energy resources. However, no significant impacts to the affected utility company are anticipated. In addition, several measures listed in the SPA Plan as well as recommended mitigations included in the EIR would reduce onsite energy requirements.

5.2.7 Other Utilities and Services

Development of the project site would result in minor adverse impacts to solid waste disposal facilities, medical facilities, emergency medical services and telephone service. All of these, however, could absorb the demands from project site development without significant effects.

5.2.8 Socioeconomic Factors

The proposed EastLake Greens/Trails project would include the construction of a maximum of 4,869 dwelling units. These would be a mixture of single and multifamily units, attached and detached. All proposed housing would be consistent with Chula Vista general housing goals, as well as the City's policies regarding low to moderate income housing. Thus, no significant adverse impacts to housing would occur.

Development of EastLake Greens would generate jobs plus any associated with proposed schools. Since this is consistent with the numbers proposed for the site in the original, adopted EastLake Community plan, no significant impacts are expected.

5.2.9 Fiscal Analysis

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

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

The proposed use of the project site environment would involve the elimination of agricultural land uses and the development of a permanent, multifaceted urban community. While agricultural opportunities would, therefore, be precluded the project's acreage does not represent a significant impact to potential resources. In addition, agriculture is considered an interim use and the proposed development would conform to current (and proposed) long-term land use designations.

The EastLake Greens/Trails project would provide a variety of land uses including employment, residential, commercial, open space, educational, and recreational uses in an area within the City of Chula Vista's sphere of influence which is growing rapidly. The project would result in an increased housing stock for the City of Chula Vista and in a net gain of public use funds. This development would, however, have certain other long-term effects on the environment.

The following discussion is a summary of the project-related impacts which may be significant on a cumulative basis, i.e., when combined with other existing, approved, and reasonably foreseeable future projects, and may affect the overall maintenance and enhancement of the long-term productivity of the area. A more detailed impacts analysis for each issue is included in Section IV 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 4.2, were evaluated in the traffic analysis completed for this project. The local cumulative impacts were considered in that study, and circulation improvements necessary to accommodate total traffic generation were identified. The improvements which would be required as conditions of project development are indicated in the Transportation and Circulation mitigation measures. The project would also, however, contribute to the overall increase of traffic volumes in the City of Chula Vista and the entire San Diego region.

Water Availability:

The proposed project would incrementally increase regional water consumption, although implementation of the SPA plan would represent an insignificant impact on current 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, however, 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 Greens and ultimately of EastLake Trails 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 Greens/Trails, the project would not represent a significant impact to regional sewer services. When combined with similar projects within the vicinity, a potentially significant impact may occur upon the City of Chula Vista's sewer infrastructure if not mitigated through the construction of additional facilities. These facilities would require additional maintenance.

Hydrology/Drainage:

Development of the project site could aggravate existing downstream drainage and flooding problems. As a condition of project development, engineering and design features would be required to ensure that the volume and rate of runoff does not exceed existing, predevelopment levels. With these features, the project would not contribute to cumulative, offsite drainage impacts. The project would, however, require the maintenance of additional drainage facilities onsite, that were not previously necessary.

Air Quality:

The project would generate additional air pollutants in the San Diego area. This could have a significant adverse effect on the maintenance and enhancement of the long-term productivity of San Diego County.

Considering the existing and proposed land use designations on the site, planned urban development is considered an appropriate and productive long-term use of the project site. In addition, the proposed development contains both local and regional beneficial impacts, including increased economic and recreational opportunities. However, the proposed uses of the site would have indirect, adverse effects on the long-term enhancement of the area as well.

5.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Development of the project site would result in the loss of currently utilized agricultural resources. However, during previous approvals on the initial stages of the project it was determined that the proposed development constitutes a more beneficial use of the site.

Visual resources on the project site would be substantially altered by the proposed development. Assuming, however, that the area is rezoned and annexed to the City of Chula Vista prior to development, the provisions contained in the SPA Plan would not conflict significantly with an urban zone classification. Grading of the project site for development, however, would permanently alter the existing site topography.

Energy and water resources would be committed in site preparation activities (grading and construction) and as part of future site usage. The project would also require a permanent commitment to provide public services. Energy sources, i.e., natural gas, electricity and fossil fuels consumed during construction, are irreplaceable. A permanent loss of natural resources used for building materials and support of urban land uses would also occur.

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

A portion of the project site was not included in the SANDAG Series 7 growth forecasts which are the basis for pertinent air quality attainment plans. Therefore, the project could potentially affect the ability of the region's air quality strategy to attain federal and state standard

SECTION 6 ALTERNATIVES

The California Environmental Quality Act (CEQA) requires that an EIR include a discussion of reasonable project alternatives, including a No Project alternative. This discussion is to focus on alternatives "capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance" (CEQA, Section 15126(d)(3)).

This SEIR has analyzed potential impacts of the proposed EastLake Greens SPA plan and other associated discretionary actions. No significant, unmitigable environmental impacts other than impacts to air quality have been found to be associated with the proposed project. Air quality impacts, however, can be completely mitigated only by the implementation of a No Project alternative. The following alternative discussion presents a No Project alternative, as required by CEQA. This alternative is discussed in this section.

Five alternatives were identified and discussed in the previous 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.

A summary of those alternatives is as follows. Although the Intensive Agricultural Use alternative would reduce the project's adverse effects on agricultural resources, public services, land use/site character, circulation network, air quality, water quality, landform, noise environment, hydrology and geology, adoption of the alternative would require the importation of water and construction of water distribution facilities for irrigation purposes and some extension of public services. In addition, the Intensive Agricultural Use alternative would increase traffic, particularly trucks, in the project vicinity. The City would also not realize the socio-economic benefits of additional housing and employment opportunities in the area.

Reduced development of the site under the Residential Density alternative would continue to eliminate the agricultural resources of the area, change the character of the site, and continue to induce growth because of the required extension of public services to the area. Although the amount of traffic generated from the site would be reduced, additional roadway improvements would still be required. The impacts of this alternative would be similar as the proposed project, although slightly less in level of significance.

Adoption of the Greenbelt Plan alternative would produce more open space in the project area, however, the impacts associated with urban development would continue. The last two alternatives were not chosen because they would not provide the housing and employment opportunities to the area associated with urban development.

The fourth alternative, Partial Development alternative, would reduce the effects to public services, circulation network, agricultural resources, and air quality associated with the project. However, the economic benefits to the City of urban development outweigh the economic viability of agricultural resources onsite.

Finally, the Redesign For Increased Employment Opportunities alternative would reduce the significant air quality impacts of the project through the reduction of vehicle trip lengths. The impacts related to urban development would remain similar to those of the proposed project. For the purposes of this EIR, Master EIR is herein incorporated by reference.

6.1 NO PROJECT ALTERNATIVE

Under the No Project alternative, the site would remain in its present condition (see Section 3, Environmental Setting) and no development would occur. It is likely that the site would continue to be used for the dry-farming of barley. Orange Avenue would not be extended east of its current eastern terminus and other proposed roads such as EastLake and Hunte Parkways would not be extended across the site. In addition, portions of the site (871.4 acres) would remain as unincorporated County land instead of being annexed to the City of Chula Vista.

Land Use:

The No Project alternative would not require the discretionary actions related to the project as proposed. These include the annexation and rezoning of County land into the City of Chula Vista; amendments to the Land Use Map and the Circulation Element of the City of Chula Vista General Plan; and amendments to the EastLake I P.C. zone and General Development Plan and to the EastLake Policy Text. None of these discretionary actions would be required if the No Project alternative was implemented. Additionally, no direct land use impacts would occur under this project alternative.

Transportation and Circulation:

As discussed above, several roads currently proposed for the area, i.e., EastLake Parkway, Hunte Parkway and the extension of Orange Avenue, would not be constructed under a No Project alternative. This would not be a significant impact, however, because the project-related ADT (approximately 80,600 ADT) would not be generated. There would also be no need for the extension of public transit routes under a No Project alternative.

Public Service/Utilities:

Similar to public transit, no extension of public services or utilities to the site would be necessary with implementation of a No Project alternative, although improvements to onsite water facilities may still be necessary if surrounding lands are developed. Sewer improvements in the area could be delayed until surrounding lands are developed as could the extension of natural gas and electrical lines and the construction of additional fire stations or branch libraries.

The No Project alternative would reduce the number of public parks and schools in the project vicinity. The loss of potential parks would not be significant because the proposed parks were primarily to be used by future residents of the EastLake Greens residential neighborhoods. Schools proposed as part of the EastLake Greens project, however, may serve students outside of the project. Therefore, the implementation of the No Project alternative could create adverse impacts on the Sweetwater Union High School and Chula Vista Elementary School Districts, in that additional school sites would need to be located elsewhere.

Visual Resources:

The project site would retain its current pastoral, vacant appearance and its existing topography. No visual impacts would occur as a result of the No Project alternative.

Geology/Soils:

The site would remain as it is with no disturbance to subsurface soils or geologic features. No impacts would occur.

Hydrology/Water Quality:

The site would continue to drain in its present drainage pattern, with no change in the amounts of existing runoff. Erosion would continue to occur at its present rate due to continued agricultural activity on the site.

Air Quality:

Air quality impacts would be greatly reduced by the No Project alternative. The only air quality impacts currently associated with the site are emissions from agricultural equipment and dust created by plowing or discing activities. These minor sources of pollutants are consistent with the SANDAG Series 7 growth forecasts and Air Pollution Control District (APCD) attainment plans for the San Diego region which assumed no development for the site.

Socioeconomic Factors:

The No Project alternative would have certain socioeconomic effects on the City of Chula Vista. The entire site is located within the City of Chula Vista's Sphere of Influence and is designated as a Future Urban Growth area. In addition, the City has adopted guidelines for the development of the area within the context of the EastLake proposal and has planned for the development of the site accordingly. Implementation of the No Project alternative would delay or eliminate annexation plans for the 871.4 acres of the site that remain in the County's jurisdiction. This would reduce the area available to the City of Chula Vista for further growth and could shift Chula Vista growth patterns to other areas of the City.

Fiscal Analysis:

The No Project alternative would result in a net loss to the City of Chula Vista in future annual revenues.

Noise:

Noise levels on the site would be reduced from levels forecast for the project at proposed buildout. Ambient noise onsite would most likely increase over existing levels, however, even with Implementation of a No Project alternative due to increased activity in the area associated with EastLake I and the extension of SR 125 along the site's western boundary.

In summary, the No Project alternative does not support the goals and objectives of the Chula Vista General Plan Update and the EastLake Master Plan, which anticipate residential/commercial/community services development on the project site. This alternative was not chosen, in either of the previous environmental reviews of the EastLake development because the implementation of the alternative would eliminate the positive socio-economic benefit of the provision of housing and increased employment opportunities in the area, and because the perceived value of expanding the urban area of Chula Vista was considered greater than the value of onsite agricultural resources. Similar reasons would apply for the EastLake Greens and Trails project.

6.2 ALTERNATIVE SITE LOCATION

This alternative analyzes the potential environmental impacts if the project were to be built on another site. Although there are numerous locations suitable in the Southbay region, none is owned by the applicant. Each site would have its own unique environmental conditions and construction of the project on another site would result in similar impacts. The type and amount of services needed for the site would not change although provision of those services might result in additional growth inducing impacts if lines are extended across undeveloped territory. Land use designations in the draft General Plan and in the GDP are consistent; implementation of the GDP on another site might be inconsistent with land use designations and result in significant impacts. Impacts to noise, geology, biology, landforms and visual quality would be specific to the alternative site selected. In summary, additional environmental impacts might occur for various issues and would be dependent upon selection of a specific site. Since there are numerous sites which could be suitable for development of the project, evaluation of a specific alternative site is not possible without a detailed feasibility study and additional environmental analyses. The site is appropriate for the development proposed, is consistent with policies and with land use designations in the draft General Plan and represents a logical, orderly pattern of growth for the City.

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**SECTION 8
INDIVIDUALS AND AGENCIES CONSULTED**

County of San Diego Library
Sharon Drouin
Nancy St. John - Public Services

Chula Vista Elementary School District
Debbie Allen - Planning Department
Dee Poralta - Planning Department

Chula Vista Fire Department
Chief Sam Lopez

Chula Vista Parks Department
Shawna Stokes

Chula Vista Police Department
Captain John Kohls

Chula Vista Public Works Department
Gina Frankle - Engineering Department
Roger Daoust - Engineering Department
Sam Roller - Advanced Planning

City of San Diego Metropolitan Wastewater Division
Ed McCampbell - Senior Wastewater Plant Supervisor

Community Hospital of Chula Vista
Perry Ingrande
Dorothy Candela

County of San Diego
Joe Perry - Demographics

County of San Diego Department Public Works
Joseph Goldhammer - Senior Civil Engineer
Pam Cortelyou - Solid Waste Supervisor

Hartson's Ambulance Services
Ken Marsh, Communications Department

NBS Lowry
Mike Swan

Otay Water District
Manuel Arroyo - District Planning Engineer
Gary Decker - Chief Engineer

San Diego County Water Authority
Larry Michaels
Charles Rhodes

San Diego Gas & Electric
Kathy Cian - Planner

San Diego Natural History Museum
Tom Demere, Paleontologist

Sweetwater Union High School District
Sandy Young - Planning Department
Tom Silva - Planning Director

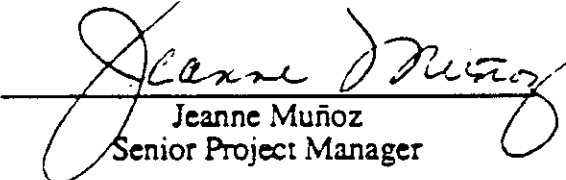
Vista Hill Hospital
Dara Maxwell

**SECTION 9
CONSULTANT IDENTIFICATION**

This report was prepared by ERC Environmental and Energy Services Co., formerly WESTEC Services, Inc. of San Diego, California. Professional staff and consultants contributing to the report are listed below.

David W. Claycomb; M.S. Natural Resources Management, AICP
Kimberly Glasgow; B.A. Geography, B.A. Environmental Studies
John McTighe; Public Affairs Consultants - Fiscal Consultant
Dennis R. Marcin; B.S. Geology
Jeanne Muñoz; Ph.D. Anthropology
Kathy G. Nadle - Public Affairs Consultants - Fiscal Consultant
Joseph Oliva, Willdon Associates - Traffic Consultant
Judi M Oliveira; B.A. Environmental Studies
Robert Sergeant; Willdon Associates - Traffic Consultant
Elyssa Robertson; B.S. Biology
Mary G. Tazik; B.A. Resources and Environmental Management

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.



Jeanne Muñoz
Senior Project Manager

APPENDIX A

NOTICE OF PREPARATION AND LETTERS OF COMMENT



Metropolitan Transit Development Board

May 30, 1986

G-E 4

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

Dear Mr. Reid:

Subject: EIR 86-4, EASTLAKE I EXPANSION - RESPONSE TO NOTICE OF PREPARATION (NOP) OF ENVIRONMENTAL IMPACT REPORT (EIR)

Thank you for the opportunity to respond to this NOP, regarding scope and content of the EIR.

The EIR should consider public transit issues as an integral part of the transportation analysis. The EIR should address the provision and funding of adequate transit service and facilities to serve the project. Transit should also be considered as a potential mitigation for adverse traffic and parking impacts.

Please feel free to contact me if you have any questions concerning these comments.

Sincerely,

Helene B. Kornblatt
Senior Environmental/Transportation Planner

HBK:bw

RECEIVED

BY _____

JUN 02 1986

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

SWEETWATER UNION HIGH SCHOOL DISTRICT
1130 Fifth Avenue
Chula Vista, California 92011

RECEIVED

June 3, 1986

BY _____

JUN 04 1986

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

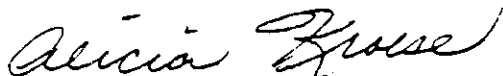
Mr. Douglas D. Reid
Environmental Review Coordinator
City of Chula Vista
P. O. Box 1087
Chula Vista, California 92012

Reference: Case No: EIR 86-4
EastLake I expansion to accomodate
EastLake Greens

Because of continuing growth throughout the area with developments similar to this proposal, the Sweetwater Union High School District cannot guarantee that adequate facilities to house students generated in this development-related growth will be available. The district does not receive sufficient funds within the current state school funding mechanisms to cover the combined costs involved in improving education, rehabilitating current facilities and constructing new classrooms for our expanding community.

However, through the mechanism of enacting and collecting developer fee contributions, the district should be able to provide adequate facilities to house students generated from this project. Please note that each school within the district has specific boundaries which determine the eligibility for priority attendance of all students. There is no guarantee, however, that a child will attend the school or that the boundaries will not be adjusted to meet school housing needs. This letter of availability is valid for 40 days from date of issuance.

Sincerely,



Alicia Kroese
Director of Planning

AK:ch

Schools: Bonita Vista Junior High/Bonita Vista High School

current General Development Plan designations will be changed to comparable and consistent General Plan designations, and the area mapped on the City-wide General Plan exhibit instead of the current reference symbol.

For the EastLake I expansion area, which is currently in the "Future Urban" category, new urban categories will be established using the standard mapping technique. The remaining portion of EastLake II will remain in the "Future Urban" category. A revision providing greater detail to the EastLake Policy Plan, a set of policies which provide guidance for the future planning of the area, is proposed.

The amendment also includes a revision to the Circulation Element changing the alignments of Orange Avenue and Otay Lakes Road. The addition of EastLake Parkway and Hunte Parkway to the planned circulation system of the area as major roads is also included. These are depicted on the Proposed General Plan exhibit in the Revised EastLake Policy Plan text.

The Preface to the revised Policy Plan includes an exhibit delineating the various components of the project and explains the General Plan Amendment in greater detail. The text should be referenced for additional information.

Zone Change

As mentioned above the EastLake I P.C. was adopted in 1982 and the General Development Plan included in the P.C. was also utilized for General Plan designation. This P.C. District was amended with the approval of the EastLake I Sectional Planning Area (SPA) Plan in 1985. This second amendment will expand the district to include the entire EastLake Greens area. Currently, no land use districts, except a 14.9 acre park in the OS-4 district, are established for the area south of Telegraph Canyon Road. The General Development Plan indicates a Future Residential classification and 1,299 dwelling units on 320.7 acres. As with the General Plan Amendment, the proposed zone change will not substantively affect the development approved in the area north of Telegraph Canyon Road. Minor changes to the previous General Development Plan have been made to make it more consistent with the subdivision maps subsequently approved for the area.

The proposed General Development Plan incorporates the EastLake I expansion area and shows a variety of land uses and a range of residential densities. The area has been enlarged by 534.4 acres and an additional 2,469 residential units are proposed. Other major uses include a High School, Junior High School, Elementary School, Community Park and a Golf Course associated with the residential development.

The proposed Planned Community District Regulations should be referenced for specific use regulations and development standards. The text also includes the proposed General Development Plan and Land Use Districts exhibits.

Annexation

The project includes the annexation of the EastLake I expansion area, which is not currently within the incorporation limits of the City of Chula Vista, an area of approximately 535 acres.

Comparative Project Statistics

The statistics associated with the zone change component of the proposed project are presented below. The statistics for the adopted planned community district are presented first, while those proposed in the amendment are listed on the following page.

Adopted EastLake I
General Development Plan

	AC	Density	Max. DU
Residential Uses			
Very Low	54.1	1-2.9	104
Low	90.6	3-4.9	350
Low/Medium	36.4	5-7.9	186
Medium	66.3	8-10.9	663
Medium/High	24.3	11-19.9	426
High	25.3	20-24.9	550
Very High	3.0	25-35.0	105
Sub-total	300.0	7.9 avg.	2,384
Future Residential	320.7	3-21.0	1,299
Total Residential	620.7	5.9 avg.	3,683
Commercial			
Village Center	53.8*		
Empolyment			
Employment Park	157.3		
Parks, Open Space & Schools			
Parks	47.8		
Open Space	269.2		
Schools	10.0		
Total	327.0		
Circulation			
Streets & Highways	128.7		
PROJECT TOTALS	1,267.9	2.9 avg.	3,683

*Includes 19.6 acres of Open Space.

See next page for proposed project statistics.

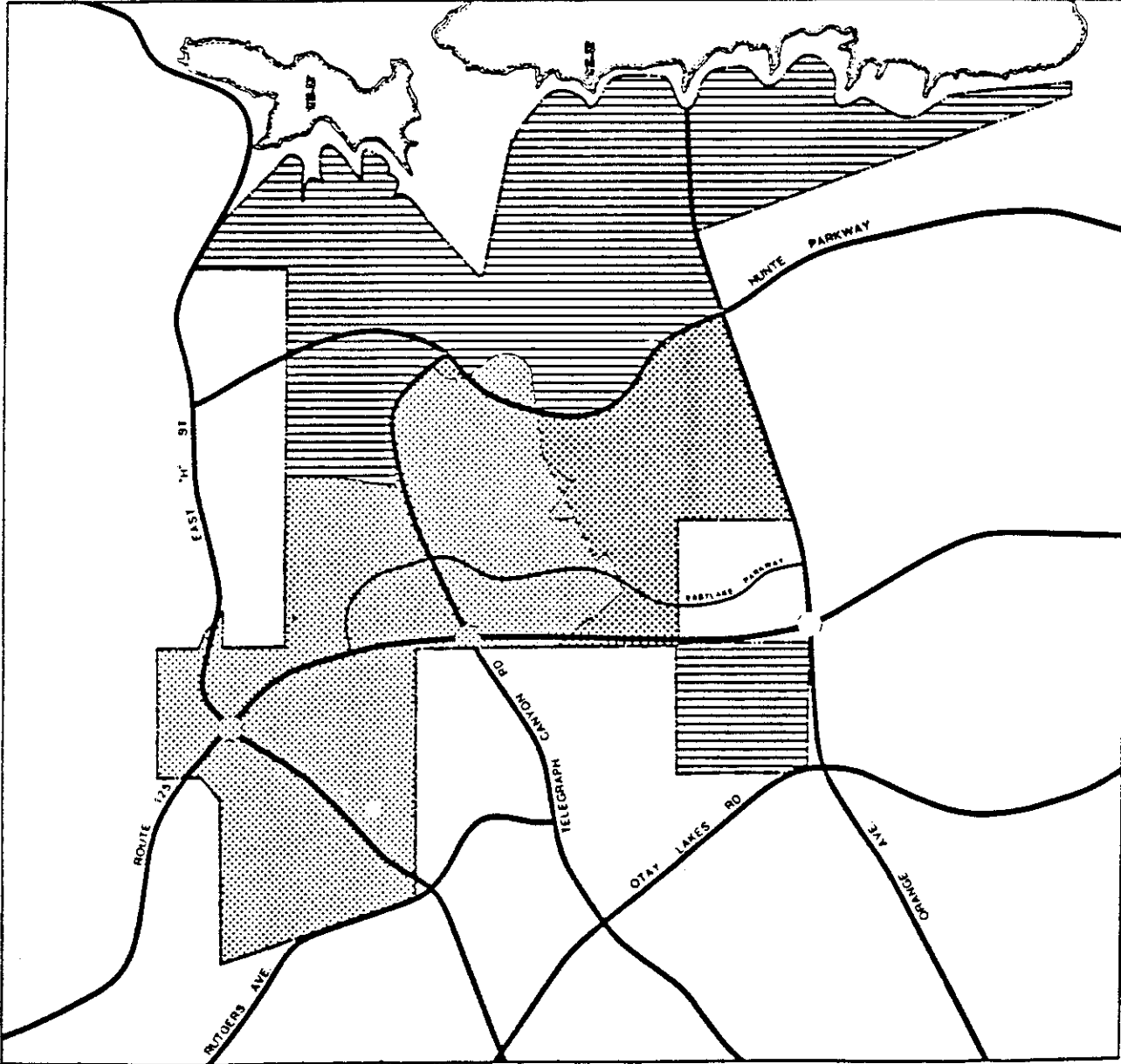
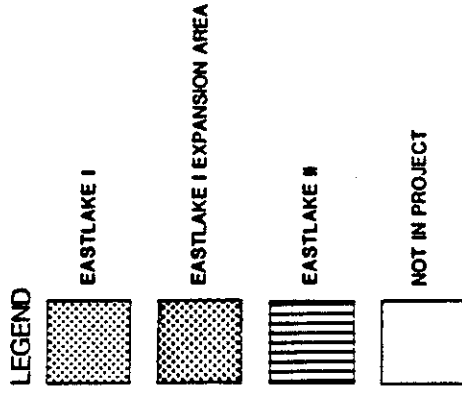
Proposed
 EastLake I/EastLake I Expansion Area
 General Development Plan

	AC	Density	Max. DU
Residential Uses			
Very Low	54.1	1-2.9	104
Low	90.6	3-4.9	350
Low/Medium	209.7	5-7.9	978
Medium	158.4	8-10.9	1,332
Medium/High	160.4	11-19.9	1,802
High	61.3	20-24.9	1,226
Very High	12.5	25-35.0	360
Total Residential	747.0	8.2 avg.	6,152
Non-Residential			
Village Center	49.6*		
Employment Park	157.3		
School	85.9		
Park	50.8		
Golf Course	139.0		
Open Space	288.4		
Major Circulation	165.2		
Total Non-Residential	951.3		
Future Urban	104.0		
PROJECT TOTALS	1,802.3	3.6 avg.**	6,152

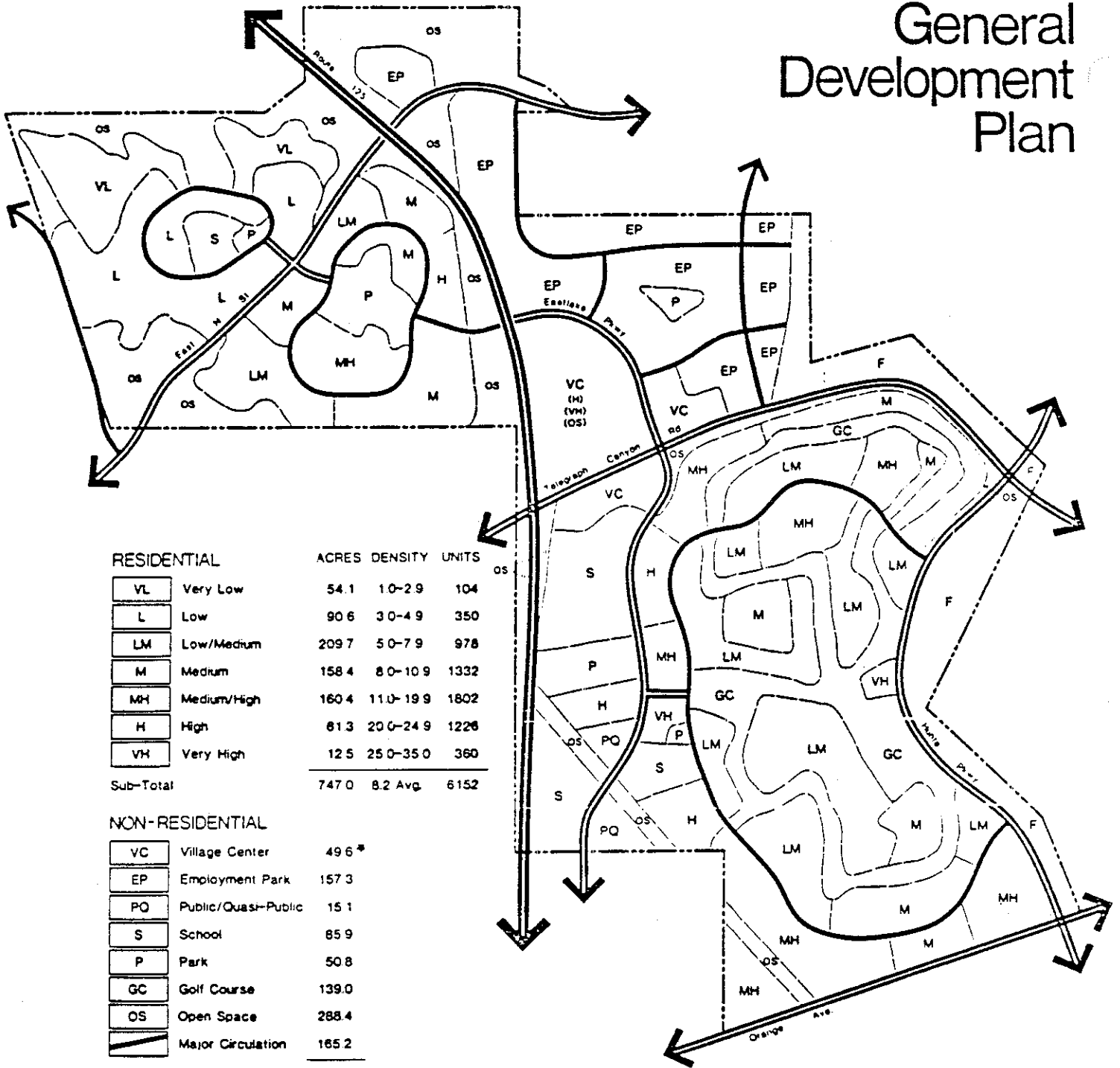
*Excludes residential and open space uses.

**Excludes Future Urban acreage in calculation.

Project Components



General Development Plan



RESIDENTIAL

		ACRES	DENSITY	UNITS
VL	Very Low	54.1	1.0-2.9	104
L	Low	90.6	3.0-4.9	350
LM	Low/Medium	209.7	5.0-7.9	978
M	Medium	158.4	8.0-10.9	1332
MH	Medium/High	160.4	11.0-19.9	1802
H	High	61.3	20.0-24.9	1226
VH	Very High	12.5	25.0-35.0	360

Sub-Total 747.0 8.2 Avg. 6152

NON-RESIDENTIAL

VC	Village Center	49.6*		
EP	Employment Park	157.3		
PO	Public/Quasi-Public	15.1		
S	School	65.9		
P	Park	50.8		
GC	Golf Course	139.0		
OS	Open Space	288.4		
	Major Circulation	165.2		

Sub-Total 951.3

Project Total 1802.3 3.6 Avg.** 6152

* Excludes residential and open space areas.

** Excludes Future Urban.

EASTLAKE

A PLANNED COMMUNITY BY EASTLAKE DEVELOPMENT CO.



Cinti
& Associates

Costa Mesa, CA 92626-3300

LRP-02
Date 1/27/86

300 1000 1500

NOTICE OF COMPLETION AND ENVIRONMENTAL DOCUMENT FORM

See NOTE Below

SCH # _____

1. Project Title: EastLake I Expansion (The Greens)
 2. Lead Agency: City of Chula Vista 3. Contact Person: Douglas D. Reid
 3a. Street Address: 276 Fourth Avenue 3b. City: Chula Vista
 3c. County: San Diego 3d. Zip: 92010 3e. Phone: (619) 691-5101
 PROJECT LOCATION 4. County: San Diego 4a. City/Community: Chula Vista
 4b. (optional) Assessor's Parcel No: 595-070 & 080 4c. Section: Rancho Twp 18S Range 1W
643-020 & 030 4c. Section: Janal
 5a. Cross Streets: Otay Lakes Road 5b. For Rural, Nearest Community: Chula Vista
 6. Within 2 miles of: a. State Hwy No. I-805 b. Airports Brown Field c. Waterways Otay Lakes

7. DOCUMENT TYPE

CEQA
 01 NOP
 02 Early Cons
 03 Neg Dec
 04 Draft EIR
 05 Supplement/
 Subsequent EIR
 (if so, prior SCH # _____)

NEPA
 06 Notice of Intent
 07 Envir Assessment/
 FONSI
 08 Draft EIS

OTHER
 09 Information Only
 10 Final Document
 11 Other _____

8. LOCAL ACTION TYPE

01 General Plan Update
 02 New Element
 03 General Plan Amendment
 04 Master Plan
 05 Annexation
 06 Specific Plan
 07 Redevelopment
 08 Rezone
 09 Land Division
 (Subdivision, Parcel Map,
 Tract Map, etc.)
 10 Use Permit
 11 Cancel Ag Preserve
 12 Other General

9. TOTAL ACRES: _____

10. DEVELOPMENT TYPE *

01 Residential: Units 6,152 Acres 747
 02 Office: Sq Ft _____
 Acres _____ Employees _____
 03 Shopping/Commercial: Sq Ft. _____
 Acres 49.6 Employees _____
 04 Industrial: Sq Ft _____
 Acres 157.3 Employees _____
 05 Sewer: MGD _____
 06 Water: MGD _____
 07 Transportation: Type _____
 08 Mineral Extraction: Mineral _____
 09 Power Generation: Wattage _____

Type: _____
 10 Other: Open Space/Public Use 643.2 ac.
Major Circulation 165.2 ac.
Future Urban 104 ac.

11. PROJECT ISSUES DISCUSSED IN DOCUMENT

01 <input checked="" type="checkbox"/> Aesthetic/Visual	08 <input type="checkbox"/> Geologic/Seismic	15 <input checked="" type="checkbox"/> Sewer Capacity	22 <input checked="" type="checkbox"/> Water Supply
02 <input type="checkbox"/> Agricultural Land	09 <input type="checkbox"/> Jobs/Housing Balance	16 <input checked="" type="checkbox"/> Soil Erosion	23 <input type="checkbox"/> Wetland/Riparian
03 <input checked="" type="checkbox"/> Air Quality	10 <input type="checkbox"/> Minerals	17 <input type="checkbox"/> Solid Waste	24 <input type="checkbox"/> Wildlife
04 <input type="checkbox"/> Archaeological/Historical	11 <input checked="" type="checkbox"/> Noise	18 <input type="checkbox"/> Toxic/Hazardous	25 <input checked="" type="checkbox"/> Growth Inducing
05 <input type="checkbox"/> Coastal Zone	12 <input checked="" type="checkbox"/> Public Services	19 <input checked="" type="checkbox"/> Traffic/Circulation	26 <input type="checkbox"/> Incompatible Landuse
06 <input type="checkbox"/> Fire Hazard	13 <input checked="" type="checkbox"/> Schools	20 <input type="checkbox"/> Vegetation	27 <input checked="" type="checkbox"/> Cumulative Effects
07 <input type="checkbox"/> Flooding/Drainage	14 <input type="checkbox"/> Septic Systems	21 <input checked="" type="checkbox"/> Water Quality	28 <input type="checkbox"/> Other _____

12. FUNDING (approx.) Federal \$ NA State \$ NA Total \$ NA

13. PRESENT LAND USE AND ZONING:

Existing zoning consists of Planned Community for the area within the City and agricultural for the area currently in the County.

14. PROJECT DESCRIPTION:

Project consists of various changes to the existing general development plan for the Eastlake project and expansion of the Eastlake project south of Otay Lakes Road to include residential, commercial and public uses.

15. SIGNATURE OF LEAD AGENCY REPRESENTATIVE: Douglas Reid Date May 20, 1986

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH Number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill it in.

NOP DIST LIST

Bonita Sunnyside Fire
Protection District
PO Box 39
Bonita, CA 92002

Dept of Land Use and Planning
5201 Ruffin Road
San Diego, CA 92123

CALTRANS
District II *2889 Juan*
~~4075 Taylor Street~~
San Diego, CA 92110

Dept of Public Works
County of San Diego
5555 Overland
San Diego, CA 92123

Sweetwater Union H.S. Dist
1130 5th Avenue
Chula Vista, CA 92011

MTDB
620 C St, Suite 400
San Diego, CA 92101-5368

C.V. Elementary School Dist
~~PO Box 907~~ *8-1 East A St*
Chula Vista, CA 92010 *C*

Otay Municipal Water Dist
10595 Jamacha Blvd
Spring Valley, CA 92078

LAFCO
1600 Pacific Highway
San Diego, CA 92101

State Clearing House
Office of Planning & Research
1400 10th Street
Sacramento, CA 95814

SANDAG
Security Pacific Plaza
1200 3rd, Suite 524
San Diego, CA 92101

S.D. Regional Water Quality
Control Board
6154 Mission Gorge Road
Suite 205
San Diego, CA 92123

SDG&E Attn: Don Rose
PO Box 1831
San Diego, CA 92112

REVIEWING AGENCIES

- | | |
|---|--|
| <input type="checkbox"/> Resources Agency | <input type="checkbox"/> CTRPA (CalTRPA) |
| <input checked="" type="checkbox"/> Air Resources Board | <input type="checkbox"/> TRPA (Tahoe RPA) |
| <input type="checkbox"/> Conservation | <input type="checkbox"/> Bay Conservation & Dev't Comm |
| <input type="checkbox"/> Fish and Game | <input type="checkbox"/> Parks and Recreation |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> Office of Historic Preservation |
| <input checked="" type="checkbox"/> Caltrans District <u>11</u> | <input type="checkbox"/> Native American Heritage Comm |
| <input checked="" type="checkbox"/> Caltrans - Planning | <input type="checkbox"/> State Lands Comm |
| <input type="checkbox"/> Caltrans - Aeronautics | <input type="checkbox"/> Public Utilities Comm |
| <input type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Energy Comm |
| <input type="checkbox"/> Boating and Waterways | <input type="checkbox"/> Food and Agriculture |
| <input type="checkbox"/> Forestry | <input type="checkbox"/> Health Services |
| <input checked="" type="checkbox"/> State Water Resources Control
Board - Headquarters | <input type="checkbox"/> Statewide Health Planning (hospitals) |
| <input checked="" type="checkbox"/> Regional Water Quality Control
Board, Region _____ | <input type="checkbox"/> Housing and Community Dev't |
| <input type="checkbox"/> Division of Water Rights (SWRCB) | <input type="checkbox"/> Corrections |
| <input checked="" type="checkbox"/> Division of Water Quality (SWRCB) | <input type="checkbox"/> General Services |
| <input type="checkbox"/> Department of Water Resources | <input type="checkbox"/> Office of Local Assistance |
| <input type="checkbox"/> Reclamation Board | <input type="checkbox"/> Public Works Board |
| <input type="checkbox"/> Solid Waste Management Board | <input type="checkbox"/> Local Government Unit (OPR) |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> Santa Monica Mountains Conservancy |
| | <input type="checkbox"/> Other _____ |

FOR SCH USE ONLY

Date Received at SCH _____ Catalog Number _____
Date Review Starts _____ Proponent _____
Date to Agencies _____ Consultant _____
Date to SCH _____ Contact _____ Phone _____
Clearance Date _____ Address _____

Notes: _____

Chairman

Mike Gotch
Councilman, City of
San Diego

Members

Brian P. Bilbray
County Board of
Supervisors

Paul Eckert
County Board of
Supervisors

Marjorie Hersom
Alpine Fire
Protection District

Dr. Charles W. Hostler
Public Member

Stanley A. Mahr
San Marcos County
Water District

Leonard M. Moore
Councilman, City of
Chula Vista

Linda Oravec
Councilwoman, City of
Poway

Alternate Members

Alex L. Adams
Greater Mountain Empire
Resource Conservation
District

George F. Bailey
County Board of
Supervisors

Uvaldo Martinez
Councilman, City of
San Diego

Fred Nagel
Mayor, City of
La Mesa

Dr. Robert J. Waste
Public Member

Executive Officer

Jane P. Merrill

Counsel

Lloyd M. Harmon, Jr.

June 19, 1986

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

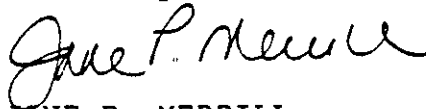
Dear Mr. Reid:

Thank you for the opportunity to comment on the Notice of Preparation for the Eastlake expansion area Draft EIR. We offer the following comments:

1. The EIR should discuss in detail the plans and alternatives for the provision of sanitary and water service. It should discuss the availability and capacity of sewer and water which may be affected by the change in the phasing schedule as originally identified in the Eastlake EIR.
2. Delivery of essential public services such as police, fire, and paramedic service should be addressed as to the potential impacts upon city departments and adequacy of service in the expansion area.
3. Land use changes causing higher residential or commercial densities than originally identified in the Eastlake EIR should be discussed as it may relate to circulation, schools, park and recreation and public transit.

If you need any further information, please do not hesitate to call Dana Smith or me.

Sincerely,



JANE P. MERRILL
Executive Officer

JPM:DMS:iw

RECEIVED

BY _____

JUN 20 1986

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

DEPARTMENT OF TRANSPORTATION

DISTRICT 11 P O BOX 85408 SAN DIEGO 92138-5408



May 28, 1986

11-SD-805
4.4/7.5

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

Dear Mr. Reid:

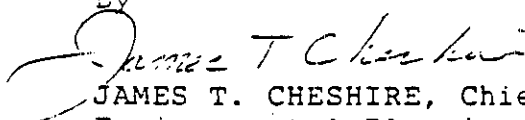
Notice of Preparation of a DEIR for
Eastlake I Expansion, EIR 86-4

References to proposed State Route 125 are misleading in that adopted State Route 125 between State Routes 117 and 54 was rescinded on June 17, 1976 by the California Highway Commission. Our contact person is Kurth Barnes, District Project Studies Engineer, (619) 237-6952.

Sincerely,

W. R. DOTSON
District Director

By


JAMES T. CHESHIRE, Chief
Environmental Planning Branch

MO:ec

RECEIVED

BY _____

JUN 03 1986

**PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA**

DEPARTMENT OF TRANSPORTATION

DISTRICT 11 P O BOX 85408 SAN DIEGO 92138-5408



May 28, 1986

11-SD-805
4.4/7.5

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

Dear Mr. Reid:

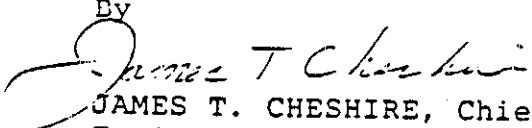
Notice of Preparation of a DEIR for
Eastlake I Expansion, EIR 86-4

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Sincerely,

W. R. DOTSON
District Director

By


JAMES T. CHESHIRE, Chief
Environmental Planning Branch

MO:ec

RECEIVED

BY _____

JUN 03 1986

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

NOTICE OF PREPARATION

TO:

FROM: Planning Department
City of Chula Vista
P. O. Box 1087
Chula Vista, CA 92012

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

CASE NO: EIR 86-4

The City of Chula Vista will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the probable environmental effects are contained in the attached materials. A copy of the Initial Study is, is not, attached.

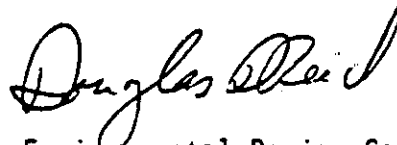
Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to: Douglas D. Reid, Environmental Review Coordinator, at the address shown above. We will need the name for a contact person in your agency.

PROJECT APPLICANT, IF ANY:

DATE: May 20, 1986

Signature:



Title:

Environmental Review Coordinator

Telephone:

(619) 691-5104

Reference: California Administrative Code, Title 14, Sections
15035.7, 15054.3, 15066.

EastLake I Expansion

Project Description

The EastLake I expansion is proposed to accommodate EastLake Greens, the next development increment within the Planned Community of EastLake, located in eastern Chula Vista. The project site is located south of Telegraph Canyon Road and east of the proposed alignment of SR125. The project includes a General Plan Amendment, an amendment to the EastLake I Planned Community Zone District and an annexation of a portion of the site into the City of Chula Vista.

History/Current Status

Because portions of the project area have differing current General Plan and zoning status, it is necessary to briefly review the history and various components of the EastLake project.

At the General Plan level, the EastLake property consists of two parcels: EastLake I, within the City, and EastLake II, adjacent to the City and within the official Sphere of Influence. With the approval of the original EastLake Amendment in 1982, the entire property was assigned a gross density of 3.7 du/ac. The General Plan land use designation for EastLake I was established as the General Development Plan of the EastLake I Planned Community (P.C.) District which was established concurrently. EastLake II was categorized as "Future Urban", a classification unique to EastLake II within the General Plan, and subject to the EastLake Policy Plan.

Subsequently, additional development approvals including a Sectional Planning Area (SPA) Plan and tract maps were secured for that portion of EastLake I north of Telegraph Canyon Road. This area is now under active development.

The portion of EastLake I south of Telegraph Canyon Road has general plan and zoning approval for future residential uses intended to accommodate EastLake Greens, but at the zoning and SPA levels was merely assigned 1,299 dwelling units with the requirement the supplemental information would be required to secure full approval. The proposed configuration of EastLake Greens is larger than this partially approved portion of EastLake I and thus includes additional acreage within the currently designated EastLake II area.

General Plan Amendment

The proposed General Plan Amendment consists of a map modification and a revision of the EastLake Policy Plan. The land use map changes will affect the EastLake I and EastLake I Expansion areas only. The changes to EastLake I will not substantively affect the development currently approved for the area. The

APPENDIX B
TRAFFIC ANALYSIS (WILLDAN ASSOCIATES)

**TRAFFIC ANALYSIS
for
EASTLAKE II
CHULA VISTA, CA**

April 19, 1989

Prepared By:

**WILLDAN ASSOCIATES
6363 Greenwich Drive, Suite 250
San Diego, California 92122
(619) 457-1199**

JN:36041:js

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OFFICE OF PLANNING AND RESEARCH

1515 FIFTH STREET
SACRAMENTO, CA 95814

RECEIVED

BY _____

MAY 29 1986

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

DATE: May 27, 1986

TO: Reviewing Agencies

RE: The City of Chula Vista's NOP for
Eastlake I Expansion (The Greens)
SCH# 86052803

Attached for your comment is the City of Chula Vista's Notice of Preparation of a draft Environmental Impact Report (EIR) for the Eastlake I Expansion (The Greens) Project.

Responsible agencies must transmit their concerns and comments on the scope and content of the EIR, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Douglas D. Reid
City of Chula Vista
276 Fourth Avenue
San Diego, CA 92010

with a copy to the Office of Planning and Research. Please refer to the SCE number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Glenn Stober at 916/445-0613.

Sincerely,

A handwritten signature in cursive script that reads "John B. Chanian".

John B. Chanian
Chief Deputy Director

Attachments

Department of Transportation
District Offices

○ Don Constock
Department of Transportation
District 1
1656 Union Street
Eureka, CA 95501
707/442-2313

○ Larry French
Department of Transportation
District 2
1657 Riverside Drive
Redding, CA 96001
916/225-2308

○ Brian J. Smith
Department of Transportation
District 3
703 B Street
Marysville, CA 95901
916/741-4277

○ J. M. Ellis
Department of Transportation
District 4
P.O. Box 7310
San Francisco, CA 94120
415/557-8532

○ Jerry Launer
Department of Transportation
District 5
50 Biquest Street
San Luis Obispo, CA 93401
805/549-3161

○ Nathan Smith
Department of Transportation
District 6
P.O. Box 12616
Fresno, CA 93778
209/488-4088

○ Wayne Ballentine
Department of Transportation
District 7
120 Spring Street
Los Angeles, CA 90012
213/620-5335

○ Robert Pote
Department of Transportation
District 8
247 West Third Street
San Bernardino, CA 92403
714/383-4150

○ Tom Dayak
Department of Transportation
District 9
500 South Main Street
Bishop, CA 94514
714/873-2290

○ Larry Burgess
Department of Transportation
District 10
P.O. Box 2048
Stockton, CA 95201
209/948-7112

⊗ Jim Chesaire
Department of Transportation
District 11
2929 Juan Street
San Diego, CA 92138
714/237-5755

Fish and Game - Regional Offices

○ A. Naylor, Regional Manager
Department of Fish and Game
601 Lorust
Redding, CA 96001
916/225-2300

○ P. Jensen, Regional Manager
Department of Fish and Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
916/355-0922

○ B. Hunter, Regional Manager
Department of Fish and Game
7329 Silverado Trail
Napa, CA 94558
707/944-2011

○ G. Nokes, Regional Manager
Department of Fish and Game
1234 East Shaw Avenue
Fresno, CA 93725
209/222-3761

⊗ Fred A. Worthley Jr., Reg. Manager
Department of Fish and Game
245 West Broadway
Long Beach, CA 90802
213/590-5113

○ Rolf E. Wall
Marine Resources Region
245 West Broadway
Long Beach, CA 90802
213/590-5155

State Water Resources Control Board

○ Joan Jurancich
State Water Resources Control Board
Division of Clean Water Grants
P.O. Box 100
Sacramento, CA 95801
916/322-3413

⊗ Ed Anton
State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95801
916/445-9552

○ Jerry Johns
State Water Resources Control Board
Delta Unit
P.O. Box 2000
Sacramento, CA 95810
916/322-9870

○ Al Yang
State Water Resources Control Board
Division of Water Rights
301 P Street
Sacramento, CA 95814
916/324-5716

⊗ Regional Water Quality Control Board
Region = 9 City San Diego

DISTRIBUTION LIST FOR JOE # 86052803

S - Sent by Lead Agency

- Anne Geraghty
Air Resources Board
1131 S Street
Sacramento, CA 95814
916/322-6161
- Barbara Kierbow
Dept. of Boating & Waterways
1629 S Street
Sacramento, CA 95814
916/323-9488
- Gary L. Holloway
California Coastal Commission
631 Howard Street, 4th Floor
San Francisco, CA 94105
415/543-8555
- Kim Branstetter
California Energy Commission
1516 Ninth Street, Rm. 200
Sacramento, CA 95814
916/324-3579
- Earl Tucker
Caltrans - Division of Aeronautics
1120 N Street
Sacramento, CA 95814
916/322-9955
- Mary Kelly
Caltrans - Planning
1120 N Street
Sacramento, CA 95814
916/323-7222
- Dennis O'Bryant
Dept. of Conservation
1416 Ninth Street, Room 1326-2
Sacramento, CA 95814
916/322-5873
- Div. of Mines and Geology
- Div. of Oil and Gas
- Land Resources Protect. Unit
- Barry Krade
Dept. of Food and Agriculture
1220 N Street
Sacramento, CA 95814
916/322-1992
- Dennis Orrick
Dept. of Forestry
1416 Ninth Street, Room 1516-2
Sacramento, CA 95814
916/322-3123
- James Hargrave
Dept. of General Services
1125 Tenth Street
Sacramento, CA 95814
916/324-0209
- Kenneth Kizer
Dept. of Health
714 P Street, Room 1253
Sacramento, CA 95814
916/445-1248

X - Sent by Clearinghouse

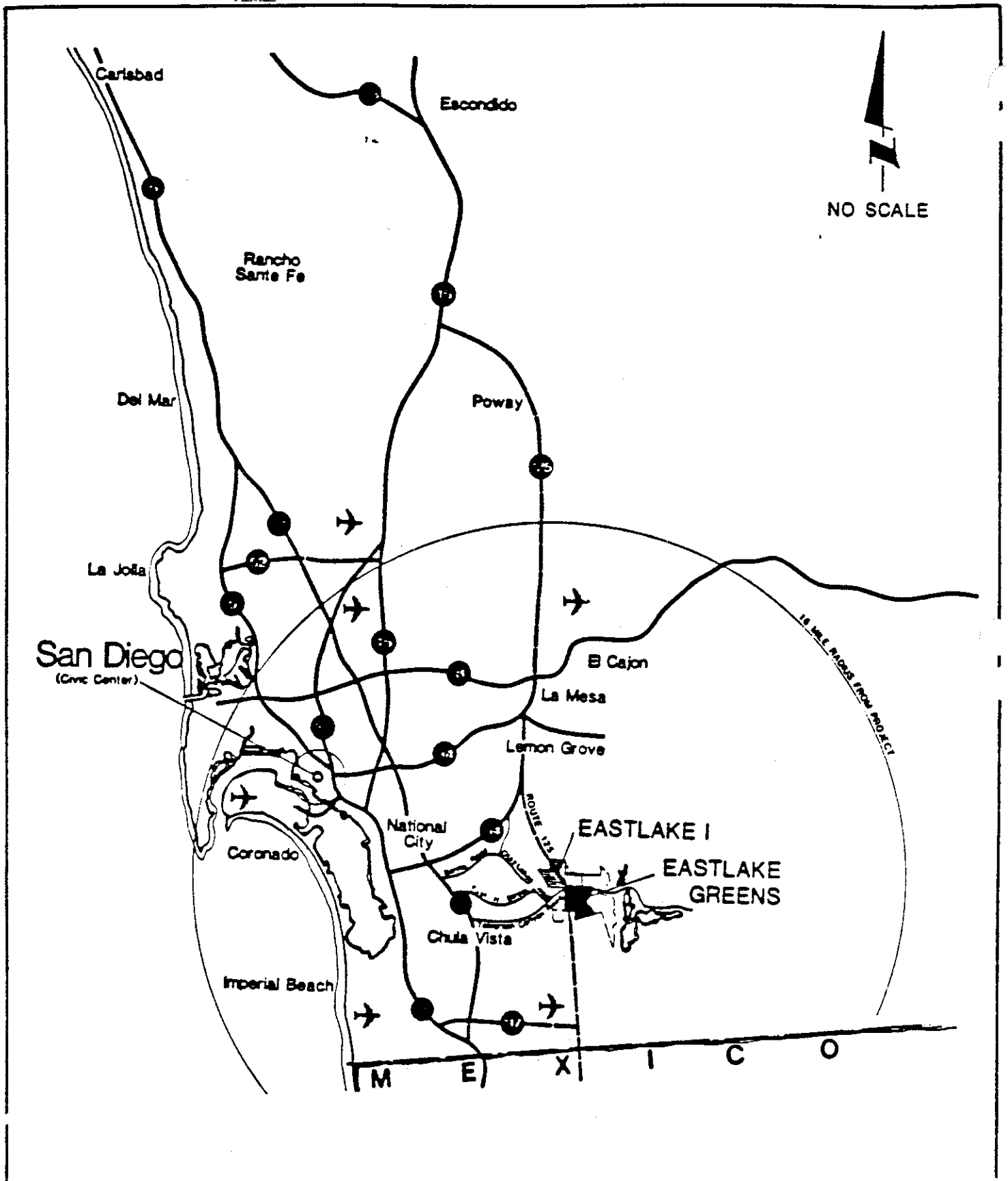
- Bill Murphy
Dept. of Housing & Community Dev't.
921 - 10th Street, 3th Floor
Sacramento, CA 95814
916/324-8657
- Environmental Reviewer
Native American Heritage Comm.
915 Capitol Mall, Room 288
Sacramento, CA 95814
916/322-7791
- Hans Kreutzberg
Office of Historic
Preservation
P.O. Box 2390
Sacramento, CA 95811
916/445-8006
- James W. Doyle
Dept. of Parks and Recreation
P.O. Box 2390
Sacramento, CA 95811
916/324-6421
- Mike Burke
Public Utilities Commission
928 J Street, Suite 1400
Sacramento, CA 95814
916/322-7315
- Kirk Stewart
Public Works Board
1025 P Street, 4th Floor
Sacramento, CA 95814
916/445-5332
- Mel Schwartz
Reclamation Board
1416 Ninth Street
Sacramento, CA 95814
916/445-2458
- Robert Batha
S.F. Bay Conservation & Dev't. Comm.
30 Van Ness Avenue, Room 2011
San Francisco, CA 94102
415/557-3686
- Eric Maher
Calif. Waste Management Board
1020 Ninth Street, Room 300
Sacramento, CA 95814
916/322-2674
- Ted Pukishian
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814
916/322-7813
- Ten Fellows
Dept. of Water Resources
1416 Ninth Street
Sacramento, CA 95814
916/445-7415
- Reed Helderman
State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
415/464-1015

INTRODUCTION

The 1,223.3 acre project site is located approximately five miles east of Interstate 805, south of Telegraph Canyon Road, and east of the proposed State Route 125 (see Figure 1). The EastLake II project is proposed to accommodate EastLake Greens and EastLake Trails, the next development increments within the planned community of EastLake, located in eastern Chula Vista. The EastLake Sectional Planning Area (SPA) was approved in 1982 at a gross density of 3.7 dwelling units (DU)/acre. However, the proposed project area was designated a "future development" area and assigned 1,299 DU's with the requirement that supplemental information would be required to secure full approval.

The EastLake II project proposes 4,869 dwelling units, an 18 hole golf course, 26 acres of commercial, a High School, an Elementary School, Neighborhood and community Parks, 54.2 acres of Equestrian uses, and 28 acres of public/quasi public uses (as shown in Figure 2).

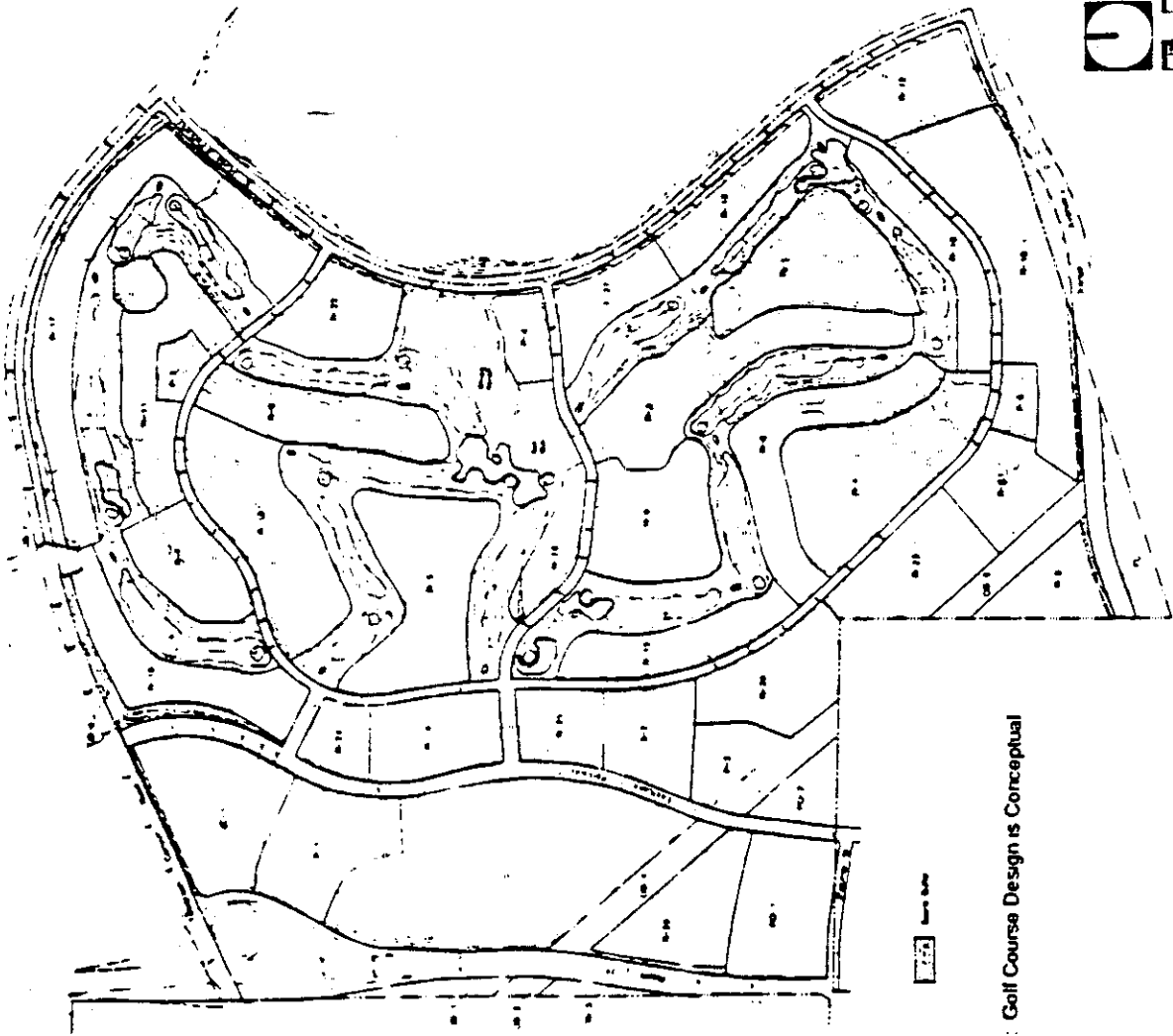
Willdan Associates has been retained to evaluate the potential transportation impacts which may occur due to the completion of the project as proposed. The analysis identifies existing traffic conditions in the project vicinity, generates, distributes, and assigns trips onto the street system, and identifies potential adverse impacts estimated existing plus buildout of the proposed project plus adjacent development. This has been accomplished by utilizing the zone system, network and land use from the Chula Vista Transportation Phasing Plan in progress by Willdan Associates. The EastLake II study area was subzoned and specific project land uses assigned to each subzone consistent with land use assumptions used in the Scenario 4 land use run for the City's General Plan. The remaining network and land use outside the study area were modified to account for phased development. State Route 125 was assumed constructed as a four lane freeway between Telegraph Canyon Road and State Route 54 under existing plus project plus committed project development.



VICINITY MAP

FIGURE 1





NOTE: Golf Course Design is Conceptual

SOURCE: Cinti & Associates, 1989

RESIDENTIAL PARCEL NUMBER	SETBACKS OR ATTACHED USE	AREA (SQ. FT.)	NUMBER OF UNITS
1-1		157	1
1-2		157	1
1-3		157	1
1-4		157	1
1-5		157	1
1-6		157	1
1-7		157	1
1-8		157	1
1-9		157	1
1-10		157	1
1-11		157	1
1-12		157	1
1-13		157	1
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1-369		157	

EXISTING CONDITIONS

Existing regional access to the project vicinity is provided by Interstate 805 via interchanges with East "H" Street and Telegraph Canyon Road. Direct access to the project site is provided via Telegraph Canyon Road/Otay Lakes Road which bounds the project on the north side.

Interstate 805 is a major north-south eight lane divided freeway branching off Interstate 5 in Sorrento Valley and reconnecting in San Ysidro. Currently the freeway carries 122,000 and 111,000 ADT north and south of "H" Street, respectively (see Figure 3). South of Telegraph Canyon Road, Interstate 805 carries 90,000 ADT (CALTRANS - 1988).

Telegraph Canyon Road varies from a six lane divided road east of Interstate 805 transitions to two lanes west of Otay Lakes Road and carries from 37,500 ADT east of Interstate 805 (1987) to 15,200 ADT west of Otay Lakes Road (1987). This road is planned to be a six lane prime arterial east of Interstate 805. Additionally, the easterly segment of Otay Lakes Road is proposed to be renamed Telegraph Canyon Road and planned as a six lane prime arterial east through the project.

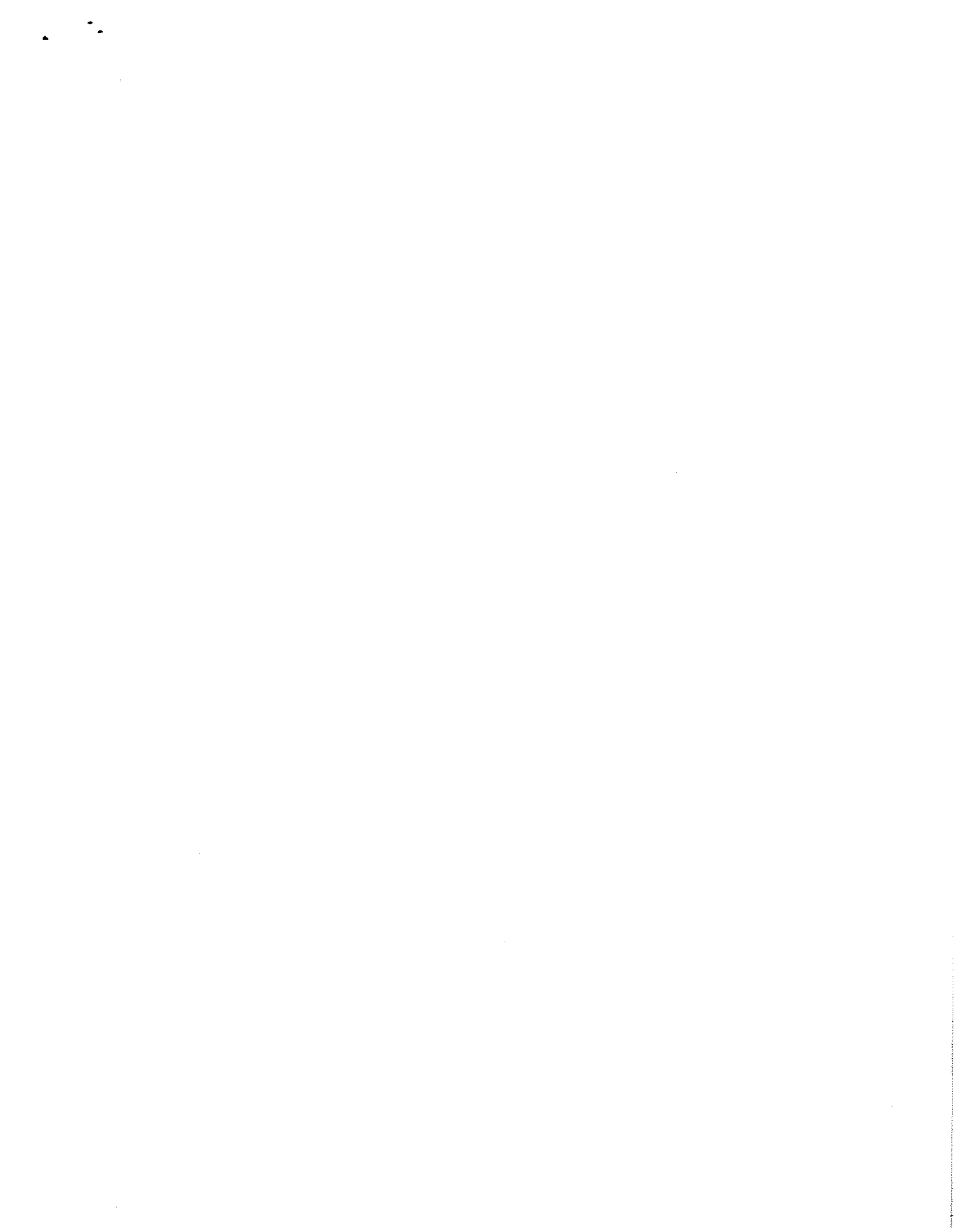
Otay Lakes Road varies from two or four lanes and carries between 12,400 and 18,700 ADT from Bonita Road south to Telegraph Canyon Road (1988) and between 2,600 and 6,200 ADT to the east. This easterly section is proposed to be renamed "Telegraph Canyon Road". The northerly section is planned to be a four lane major road.

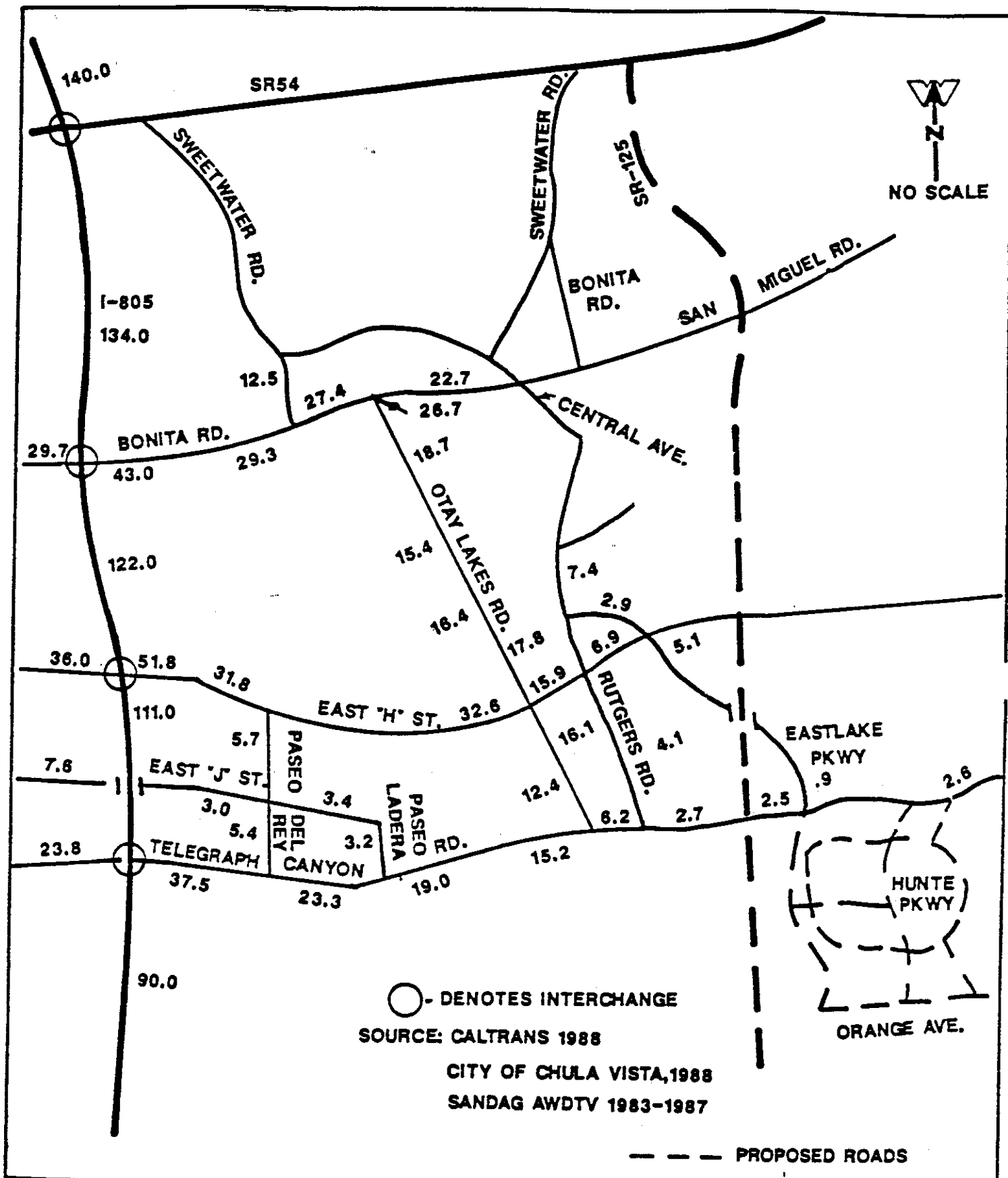
East "H" Street is constructed to six lanes and carries from 51,800 ADT east of Interstate 805 and 32,600 ADT west of Otay Lakes Road (1989). East and west of Paseo del Rey, East "H" Street carries 32,600 and 31,800 ADT, respectively. East "H" Street is planned to be a six lane prime arterial from Interstate 805 east to Otay Lakes Road, a four lane major road east across the project.

Proposed State Route 125 is not currently constructed in the project vicinity. It is proposed to be extended from Highway 54 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 proposed State Route 125 is dependent on the approval of proposed land uses on the undeveloped property east of the project site in both the City of Chula Vista and the County of San Diego. Proposed State Route 125 will provide a major north-south link for the East-Lake community, providing a major north-south link for the EastLake Community, providing access from the Mexican Border to the Eastern portions of the San Diego Metropolitan area.

Due to the undeveloped nature in the project vicinity, public transit does not currently serve the project site. However, Chula Vista Transit does serve Southwestern College with local routes 704 and 705 via Telegraph Canyon Road and Otay Lakes Road, respectively. The San Diego Trolley has stations at Palomar Street and "H" Street east of Interstate 5. The developer should

coordinate the expansion of the Chula Vista Transit local routes with the phasing of the EastLake community.





EXISTING ADT IN THE PROJECT VICINITY
(IN THOUSANDS)

FIGURE 3



IMPACTS

To evaluate the potential impacts of the project, we have utilized SANDAG's Trip Generation program to provide production and attraction tables from the project land use. The project land use was then assigned to the original zones representing the project in the land use Scenario 4 Chula Vista General Plan forecast. The trips were then distributed (Gravity Model), and assigned to the street system (Incremental Capacity Restraint), and the critical street segment capacities and intersection capacities evaluated for long term impacts.

Computer Forecast Methodology and Procedures

The computer model used for this forecast is TRANPLAN, a package of transportation planning computer programs similar to UTPS and the Federal Highway Administration's PLANPAC. Currently, the San Diego Association of Governments (SANDAG) and the County of San Diego use this package for subregional transportation studies.

The modeling process consists of eight individual steps (shown in Figure 4).

- o Define Zone System - The study area is broken down into small areas called Traffic Analysis Zones (TAZ's) for the purpose of tabulating land use and estimating travel activity. Generally, circulation element roads and geographic features (hills, canyons, and riverbeds) are used as zone boundaries. The EastLake II zone system was consistent with the City of Chula Vista scenario 4 buildout forecasts. Figure 5 indicates how specific land uses would access the street system.
- o Code Highway Network - Roadway systems are represented in machine readable form through links and nodes. This enables travel times between zones to be determined. Highway data coded into the program includes time, speed (peak and off peak), distance, direction, and capacity of each specific link. The EastLake II network consists of 12,000 links (one way).
- o Path Building - Minimum paths between zones are determined based on coded highway networks. Turn penalties are assigned on all links (where applicable) to reflect actual delay times and perceived inconvenience when turning from one facility to the next. Both times and distances are combined to compute impedances on which path building is based. After paths have been built between zones, the selected summation program adds up times and distance along the paths to generate zone-to-zone time and distance matrices.

DEFINE ZONE SYSTEM



OBTAIN LAND USE INFORMATION



GENERATE TRIPS



DISTRIBUTE TRIPS



SPLIT TRIPS INTO PEAK/
OFF-PEAK PERIODS



ASSIGN TRIPS

CODE HIGHWAY NETWORKS



BUILD PATHS

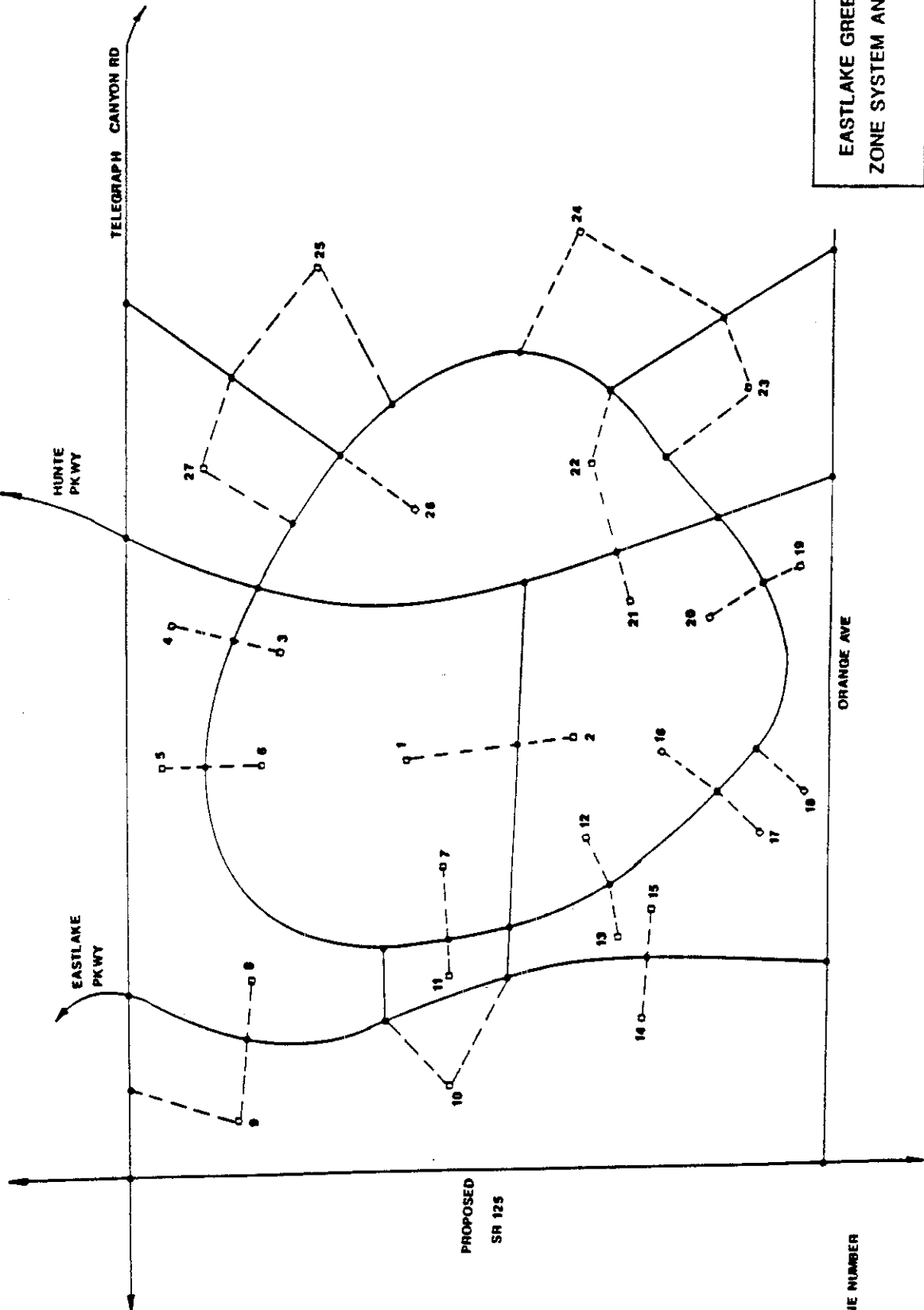


STEPS IN MODELING PROCESS

FIGURE 4



WILLDAN ASSOCIATES



EASTLAKE GREENS/TRAILS
ZONE SYSTEM AND NETWORK

FIGURE 5



50 SUBZONE NUMBER

• NODE
— LINK

- o Obtain Land Use - Base year (1986) and future year land use is collected for each traffic zone in the study area. TAZ's (regional) outside the study area were assigned 1986 base year productions and attractions (P's and A's). The City of Chula Vista Planning Department and area developers provided land use projections for the determination of land use phasing. The amount of land use in each land use category determines the number of and type of trips generated.
- o Trip Generation - Trip generation rates are applied to land uses to estimate the number of trips starting and ending in each zone. Land use data is obtained from the previous step and trip rates are obtained from traffic generation studies. Trip generation rates for this study are summarized in Table 1.
- o Trip Distribution - Trip distribution identifies where trips are going to by linking trip productions with trip attractions. Trip interchanges between zones are estimated through use of TRANPLAN's Gravity Model. The gravity model sets regional attractions equal to regional productions for each trip type. Three iterations are performed for each internal trip type and one iteration is performed on external trips to balance external productions and attractions. Trips through the region (e.g. from the Mexican Border to Orange County) are added to gravity model external-internal trips.
- o Time of Day Factoring - Daily trips are split into peak and off peak period trips for assignment purposes. Trip factoring is performed through use of a series of TRANPLAN matrix manipulation programs. These programs transpose production-attraction tables into origin-destination tables for both peak and off peak periods.
- o Traffic Assignment - Traffic assignment is the process whereby trip interchanges between zones are loaded onto the street network. TRANPLAN's capacity restraint assignment was used in the EastLake Greens Traffic Study. Capacity restraint takes into account the capacity of facilities in loading trips onto the highway network. Four iterations are performed during the assignment process, with the model recomputing link time and speed before loading on each iteration. The capacity restraint procedure is performed for both peak and off peak periods. Daily volumes are obtained by summing peak and off peak assignments.

Trip Generation

The traffic which would result from the proposed project is estimated using accepted trip generation rates which are based on categories of land uses. These have been developed by various agencies and summarized by SANDAG in their Traffic Generators manual.

Table 2 summarizes the generation of expected trips for the project.

TABLE 1

TRIP GENERATION

EASTLAKE II TRANSPORTATION STUDY

	RATE	TOTAL	PRODUCTIONS				ATTRICTIONS						
			H-W	H-S	H-O	O-W	O-O	H-W	H-S	H-O	O-W	O-O	
SINGLE RESIDENTIAL	10.0	90	23	25	42	03	07	05	06	57	00	06	32
MULTI RESIDENTIAL	8.0	90	25	25	43	03	05	04	04	50	00	04	42
APARTMENTS	6.0	90	25	25	43	03	05	04	04	50	00	04	42
GOLF COURSE	5.0	24	00	00	00	33	67	01	01	72	00	01	26
NEIGHBORHOOD PARK	5.0	24	00	00	00	33	67	01	01	72	00	01	26
HIGH SCHOOL	50.0	21	00	00	00	34	66	10	07	69	00	07	14
ELEMENTARY SCHOOL	60.0	21	00	00	00	34	66	10	07	69	00	07	14
VILLAGE CENTER	500.0	32	00	00	00	35	65	07	04	14	40	04	35
COMMUNITY PARK	50.0	22	00	00	00	35	65	15	10	58	00	10	17
EQUESTRIAN CENTER	50.0	22	00	00	00	35	65	15	10	58	00	10	17
PUBLIC/QUASI PUBLIC	50.0	22	00	00	00	35	65	15	10	58	00	10	17

TABLE 2

TRIP GENERATION

EastLake II - Greens:

Land Use	Intensity	Trip Rate	ADT	%	AM Peak Hour		%	PM Peak Hour	
					In	Out		In	Out
SFD	1,159 DU	10/DU	11,590	88	185	742	108	811	348
MFD	2,060 DU	8/DU	16,480	88	264	1,054	108	1,154	494
Apts	390 DU	6/DU	2,340	88	37	150	118	180	77
Golf Course	160.6 acres	5/acre	803	68	38	10	98	22	50
High School	49.2 acres	50/acre	2,460	208	394	98	148	103	241
Village Ctr.	15.0 acres	500/acre	7,500	38	135	90	108	375	375
Elem Schl	10.6 acres	60/acre	636	268	66	66	58	10	22
Comm. Park	15.1 acres	50/acre	755	48	15	15	88	30	30
Neigh Park	15.5 acres	5/acre	78	48	2	2	88	3	3
Public/ Quasi Public	28.0 acres	50/acre	1,400	68	17	67	98	88	38
Subtotal:			44,042		1,186	2,294		2,776	1,678

EastLake II - Trails:

Land Use	Intensity	Trip Rate	ADT	%	AM Peak Hour		%	PM Peak Hour	
					In	Out		In	Out
SFD	793 DU	10/DU	7,930	88	127	507	108	555	238
MFD	467 DU	8/DU	3,736	88	60	239	108	262	112
Neigh. Comm. Equestrian Center	11.0 acres	500/acre	5,500	38	99	66	108	275	275
Neigh Park	54.2 acres	50/acre	2,710	68	32	32	98	171	73
	14.6 acres	5/acre	73	48	2	2	88	3	3
Subtotal:			19,949		320	846		1,266	701
Totals:			44,042		1,186	2,294		2,776	1,678
			63,991		1,506	3,140		4,042	2,379

As shown, the project is expected to add approximately 64,000 ADT to the street system of which approximately 4,650 and 6,420 are assigned to the AM and PM peak hours, respectively. Analyzing the peak hours is important from a traffic standpoint, because they place the greatest demand on the surrounding street system and intersections.

However, a project of this type (residential, commercial, recreational) will result in approximately 15 to 20 percent of the trips internal to the project (e.g. home to shop and home to school trips). This assumption is reasonable since the commercial, educational, and recreational land uses within the project would generate 21,915 trips per day, and if half of these trips originated from the residential uses in the project, this would represent a 17 percent reduction of trips to the external network.

Trip Distribution and Assignment

Using TRANPLAN's "HWYLOAD" program, a select zone assignment was performed for the project subzones. The "selected OD's" parameter was used to assign all trips with origins or destinations in the project zones. Figure 6 shows the project trip assignment onto the phased street network.

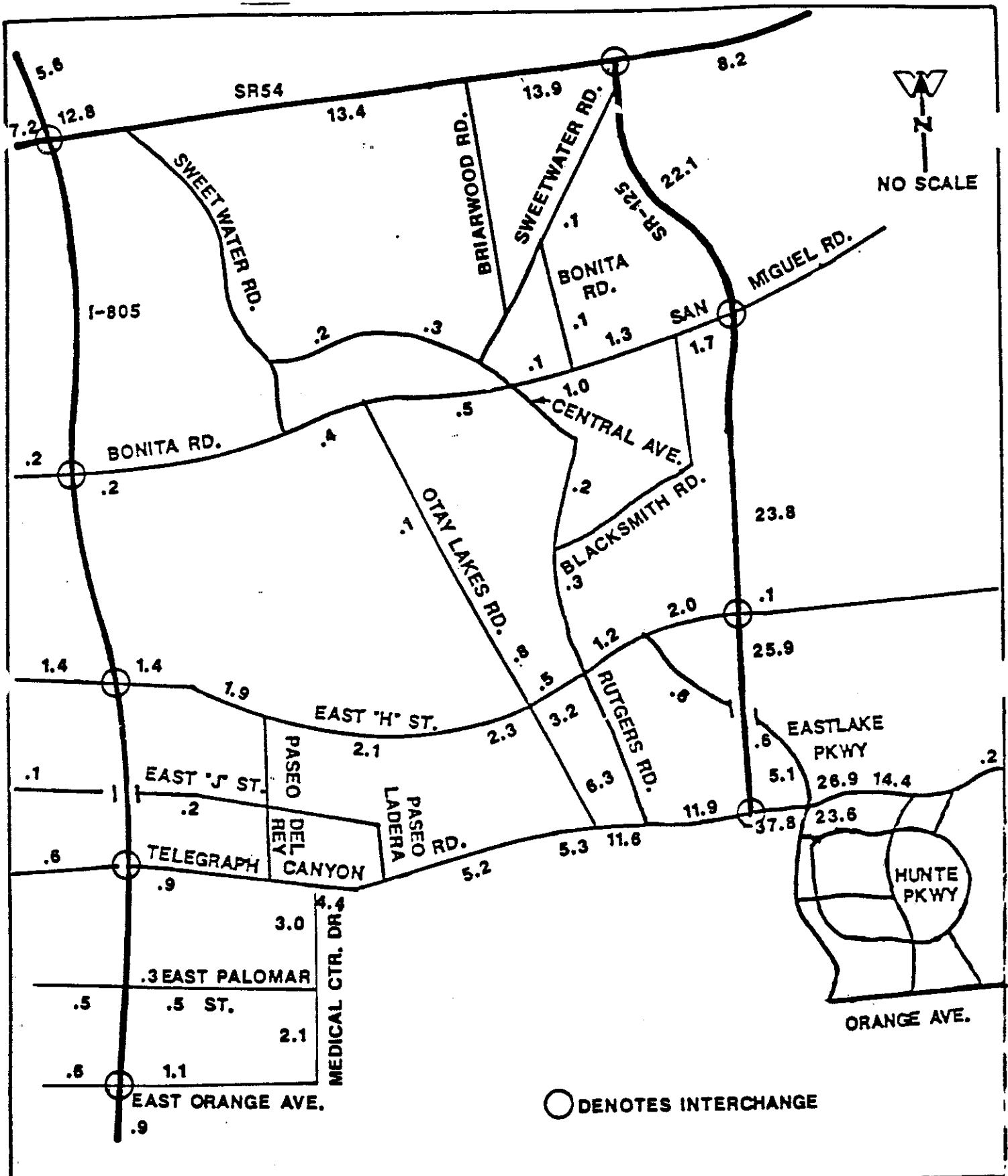
As shown, in the long term, a large percent of the project's trips (55%) will utilize Telegraph Canyon to access proposed State Route 125 for destinations to the northeast and northwest. Approximately 30 percent will utilize Telegraph Canyon Road and East "H" Street (with most using Telegraph Canyon Road) for destinations to the west in Chula Vista. The remainder of the trips will use other facilities for destinations in all directions.

Land Use Phasing

In order to assess the cumulative impacts of the EastLake II project on the surrounding street system, it was necessary to include projects that are approved (and proposed) in the eastern Chula Vista area. As part of the East Chula Vista Transportation Phasing Plan (ECTPP), land use phasing was developed based on input from area developers and refinements by Chula Vista City staff.

This land use phasing was then added to existing land uses and network (1988 Chula Vista Calibration Run - SANDAG) to determine street improvements at various development thresholds. To date, this phasing has been run on the computer for five development phases. For the purpose of this analysis, the remainder of EastLake II (approximately 1,000 DU) was added to the ECTPP phase five forecasts.

Overall, approximately 10,100 dwelling units, 172 acres of industrial, and 85 acres of commercial uses are assumed to develop (including the buildout of EastLake II) in the study area. The major developments included in the land use phasing include EastLake I, Rancho del Rey (SPA 1 & 2), Sunbow (Phases 1 & 2), Terra Nova, Bonita Long Canyon, Salt Creek (Phase 1), Bonita Meadows, Rancho San Miguel, Otay Ranch (partial) and Sudberry. Table 3 lists the preliminary land use phasing assumptions utilized for the purpose of this study.



PROJECT ONLY ASSIGNMENT (IN THOUSANDS)
 WITH SR 125 AS A 4 LANE FREEWAY

FIGURE 6



WILLDAN ASSOCIATES

EAST CHULA VISTA LAND USE PHASING - Revised 1-9-89

Developer	Base Year (1-1-89)	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 5-A
EastLake II EastLake Business Ctr.	505 DU 19 Ac. Ind.	962 DU 20 Ac. Ind. 10 Ac. Comm.	626 DU 20 Ac. Ind. 21 Ac. Comm.	534 DU 26 Ac. Ind. 18 Ac. Comm.	514 DU 26 Ac. Ind. 7 Ac. Comm.	486 DU 20 Ac. Ind. 14 Ac. Comm.	1,116 DU
Rancho del Rey		457 DU 10 Ac. Ind. 1 Ac. Comm.	709 DU 9 Ac. Ind. 2 Ac. Comm.	426 DU 9 Ac. Ind. 2 Ac. Comm.	236 DU 6 Ac. Ind. 2 Ac. Comm.	219 DU	
Mission Verde	27 DU	49 DU					
Daly Homes	21 DU						
Ladera Villas		29 DU					
Sunbow	339 DU	145 DU	460 DU 8 Ac. Comm.	440 DU	400 DU	400 DU	
Great American		339 DU					
Bonita Long Canyon	279 DU	119 DU					
Baldwin				300 DU	200 DU	245 DU	
Bufo			205 DU	200 DU			
Unocal				100 DU	150 DU	150 DU	
UE							
Sudberry	10 Ac. Comm.						
Phasing Totals	1,171 DU 19 Ac. Ind. 10 Ac. Comm.	2,100 DU 30 Ac. Ind. 11 Ac. Comm.	2,000 DU 29 Ac. Ind. 31 Ac. Comm.	2,000 DU 35 Ac. Ind. 20 Ac. Comm.	1,500 DU 32 Ac. Ind. 9 Ac. Comm.	1,500 DU 46 Ac. Ind. 14 Ac. Comm.	1,116 DU

Street Segments (short term cumulative plus EastLake II Buildout)

In order to evaluate short term cumulative impacts on street segment capacities, we have utilized Table 4 (City of Chula Vista Roadway Capacity Standards) which was derived from approximate LOS C capacities recommended for the City of Chula Vista Circulation Element of the General Plan. This table correlates ADT to levels of service (A-E) for the various classifications of roads. Figure 7 shows the short term cumulative daily traffic volumes on the surrounding street system with the EastLake II project buildout. Table 5 indicates the street segments, assumed (phased) configuration, cumulative ADT, LOS, project only volumes, and project only percentage of daily traffic in the project vicinity.

As shown with the assumption State Route 125 is constructed between Telegraph Canyon Road and State Route 54 as an interim four lane freeways (with interchanges at East "H" Street, San Miguel Road, and State Route 54) most street segments operate at very high levels of service in the project vicinity. Telegraph Canyon Road between State Route 125 and EastLake Parkway is projected to carry 57,400 ADT (LOS E). Referring to the project only percentage on Table 4 it is evident that this is a direct impact from EastLake II (37,800 ADT or 66 percent of the daily forecast traffic volumes).

Bonita Road east of Interstate 805 is projected to carry 43,000 ADT (LOS F), however, this is consistent with existing conditions and is not considered a project related impact. LOS D is projected between Willow Street and Otay Lakes Road under short term cumulative conditions. It should be mentioned the EastLake II development only adds 200 ADT to these segments of Bonita Road (one percent of total forecast traffic volumes) and is not considered a significant impact. All other street segments operate at fully acceptable levels of service under the assumed (phased) configuration and anticipated short term cumulative development.

Intersections (short term cumulative plus EastLake II buildout)

Intersections are of particular interest since the level of service at which an intersection operates is an indication of the delay which can be expected. The intersections felt to be subject to the greatest potential impact were analyzed using adjusting peak period turning movement volumes from the model (which were saved during the assignment process). The analysis consisted of Intersection Capacity Utilization (ICU) calculations which indicate the level of service expected. The method used was specified by the City of Chula Vista assigning hourly lane capacities of 1,700 and 1,500 for through and turn lanes, respectively, and summing of the critical movements. These ICU's were performed under short term cumulative conditions with EastLake II built out and network assumptions previously mentioned.

For the purpose of this analysis, intersection geometrics will be estimated based on the assumed (phased) configuration or the intersecting street segments. All four way intersections were assumed to be fully phased signalized intersections. The ICU calculations for these intersections are included as Figures A-1 through A-8 in the Appendix (see Tables A-1 and A-2 in the Appendix for a description of conditions and ranges for the various levels of service). A summary of these analyses appear in Table 6.

Table 4

CITY OF CHULA VISTA ROADWAY CAPACITY STANDARDS*
AVERAGE DAILY VEHICLE TRIPS

ROAD		LEVEL OF SERVICE				
CLASS	X-SECTION V/C Ratio	A (.6)	B (.7)	C (.8)	D (.9)	E (1.0)
Expressway	104/128	52,500	61,300	70,000	78,800	87,500
Prime Arterial	104/128	37,500	43,800	50,000	56,300	62,500
Major Street (6 lanes)	104/128	30,000	35,000	40,000	45,000	50,000
Major Street (4 lanes)	80/104	22,500	26,300	30,000	33,800	37,500
Class I Collector	74/94	16,500	19,300	22,000	24,800	27,500
Class II Collector	52/72	9,000	10,500	12,000	13,500	15,000
Class III Collector	40/60	5,600	6,600	7,500	8,400	9,400

* LOS 'C' Capacities are from the City of Chula Vista Circulation Element of the General Plan. Other levels of service are derived by volume to capacity (V/C) ratios.

Table 5

Short Term Cumulative Street Segment Operations
in the Project Vicinity

<u>Street Segment</u>	<u>Configuration</u>	<u>Cumulative Volume</u>	<u>LOS</u>	<u>Proj. Volume</u>	<u>%</u>
<u>Telegraph Canyon Road</u>					
E/of I-805	Major (6)	29,900	A	900	3%
E/of Paseo del Rey	Major (4)	15,500	A	1,300	8%
E/of Medical Center Dr.	Major (4)	23,600	B	4,400	19%
E/of Otay Lakes Rd.	Prime	28,300	A	11,600	41%
E/of Rutgers Rd.	Prime	27,700	A	11,600	42%
E/of SR 125	Prime	57,400	E	37,800	66%
E/of EastLake Pkwy.	Prime	40,700	B	26,900	66%
E/of EastLake Boundary	Class III Coll.	3,200	A	200	6%
<u>State Route 125</u>					
N/of Telegraph Canyon Rd.	4 lane freeway	42,500	N/A	25,900	61%
N/of East 'H' St.	4 lane freeway	53,000	N/A	23,800	45%
N/of San Miguel Rd.	4 lane freeway	53,200	N/A	22,100	42%
<u>East 'H' Street</u>					
E/of I-805	Prime	38,600	B	1,400	4%
E/of Terra Nova	Prime	30,500	A	1,900	6%
E/of Paseo del Rey	Prime	24,900	A	2,100	8%
E/of Buena Vista	Prime	24,600	A	2,300	9%
E/of Otay Lakes Rd	Major (4)	16,500	A	500	3%
E/of Corral Cyn. Rd.	Major (4)	14,700	A	1,200	8%
E/of EastLake Pkwy.	Major (4)	18,200	A	200	1%
E/of SR 125	Major (4)	6,900	A	100	1%
<u>Otay Lakes Road</u>					
N/of Telegraph Cyn. Rd.	Major (4)	19,400	A	6,300	32%
N/of East 'H' St.	Major (4)	14,400	A	800	6%
N/of Canyon Dr.	Major (4)	10,900	A	100	1%
N/of Allen School Ln.	Major (4)	14,000	A	0	---
<u>Rutgers Road/Corral Canyon Road</u>					
N/of Telegraph Cyn. Rd.	Class III Coll.	1,300	A	0	---
N/of East 'H' St.	Class III Coll.	1,500	A	0	---
N/of EastLake Pkwy.	Class III Coll.	3,100	A	300	10%
N/of Country Vistas Rd.	Class III Coll.	2,700	A	200	1%
N/of Blacksmith Rd.	Class I Coll.	5,400	A	200	4%

Table 5 (continued)

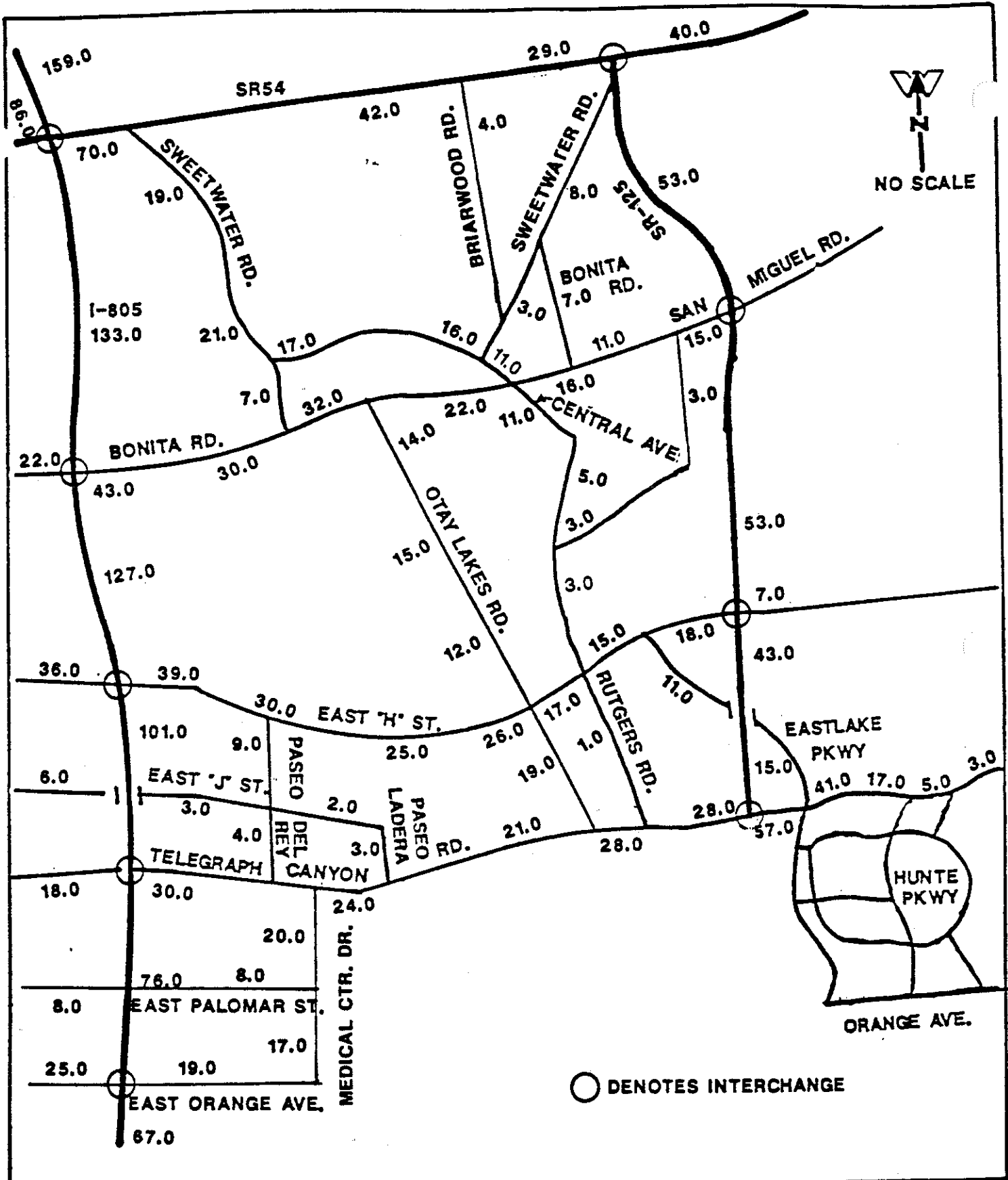
<u>Street Segment</u>	<u>Configuration</u>	<u>Cumulative Volume</u>	<u>LOS</u>	<u>Proj. Volume</u>	<u>%</u>
<u>Bonita Road</u>					
E/of I-805	Major (4)	43,000	F	200	1%
E/of Plaza Bonita Dr.	Major (4)	29,300	C	200	1%
E/of Willow St.	Major (4)	32,100	D	200	1%
E/of Otay Lakes Rd.	Major (4)	22,300	A	400	2%
E/of Acacia Ave.	Major (4)	19,400	A	600	3%
N/of Central Ave	Major (4)	15,900	A	1,100	7%
N/of San Miguel Rd.	Major (4)	6,600	A	100	2%
<u>Central Avenue</u>					
E/of Bonita Rd.	Class I Coll.	10,500	A	0	---
E/of Frisbee Rd.	Class II Coll.	10,300	B	200	2%
<u>Medical Center Drive</u>					
S/of Telegraph Cyn. Rd.	Major (4)	20,000	A	3,000	15%
S/of E. Palomar St.	Major (4)	17,000	A	2,100	12%
<u>East Orange Avenue</u>					
W/of I-805	Major (4)	25,000	B	600	2%
E/of I-805	Major (4)	19,000	A	1,100	6%

Table 6

Project Vicinity Intersection Levels of Service

<u>Intersection</u>	<u>Peak Hour LOS</u>
Telegraph Canyon Road/EastLake Parkway	C
Telegraph Canyon Road/Hunte Parkway	B
Telegraph Canyon Road/State Route 125	D*
Telegraph Canyon Road/Rutgers Road	A
Telegraph Canyon Road/Otay Lakes Road	C
Telegraph Canyon Road/Interstate 805 N/B Ramps	C
Telegraph Canyon Road/Interstate 805 S/B Ramps	B
East 'H' Street/Otay Lakes Road	C

*LOS A if southbound State Route 125 to eastbound Telegraph Canyon Road loop ramp is constructed.



CUMULATIVE VOLUMES (IN THOUSANDS)
WITH SR 125 AS A FOUR LANE FREEWAY

FIGURE 7



It should be noted that these turning movements (produced from the model) are merely approximations and are intended to verify in a general sense the street classifications. Therefore, these ICU calculations are only estimates of how intersections in the project vicinity would work. Specific improvement requirements should be made at the time each tentative map is approved.

Most intersections in the project vicinity, with appropriate striping or minor street widening, can achieve desirable levels of service ("C" or better) under short term cumulative development without deviating from the "Circulation Element" lane parameters.

The Telegraph Canyon Road/State Route 125 intersection is projected to operate at LOS D during the peak hour as a standard at-grade signalized intersection. Due to the high volume of southbound left turning vehicles from State Route 125 to eastbound Telegraph Canyon Road, (1,464 during the peak hour), construction of a southbound to eastbound loop ramp would result in LOS A. If this cannot be achieved, then extending State Route 125 south to East Palomar Street (which would connect to the EastLake II street system) would result in an acceptable level of service.

Access

Access to the project via Circulation Element Roads is proposed at seven locations. The major loop street will access Hunte Parkway at three locations, the entry roads to the major loop street will access EastLake Parkway at two locations, and the EastLake Trails entry roads will access Telegraph Canyon Road and Orange Avenue at one location.

A signal warrant analysis was performed at all seven locations to determine if signalization would be required under short term cumulative conditions with EastLake II built out (see Figures A-9 through A-14 in the Appendix for calculations). According to our analysis, the the north entry road and south entry road with EastLake Parkway will warrant signalization. Also, the north loop connection to Hunte Parkway will warrant signalization.

Due to the configuration of the major loop street, signal warrants were also performed for both entry roads off EastLake Parkway with the major loop street (see Figures A-15 and A-16 in the Appendix). According to our analysis, signalization will be warranted at the intersection of these entry roads with the major loop street.

Internal Circulation

As shown in the Site Utilization Plan, the project proposes one major loop street from Hunte Parkway south of Telegraph Canyon Road, forming a circle east of Hunte Parkway just north of Orange Avenue. In the latest circulation plan, a street was added from the south entry road to Hunte Parkway. Two connections to EastLake Parkway are also made from the major loop street. The project's circulation plan shows the major loop street as an 70' right-of-way (two travel lanes and a center left turn lane) with widening intersections.

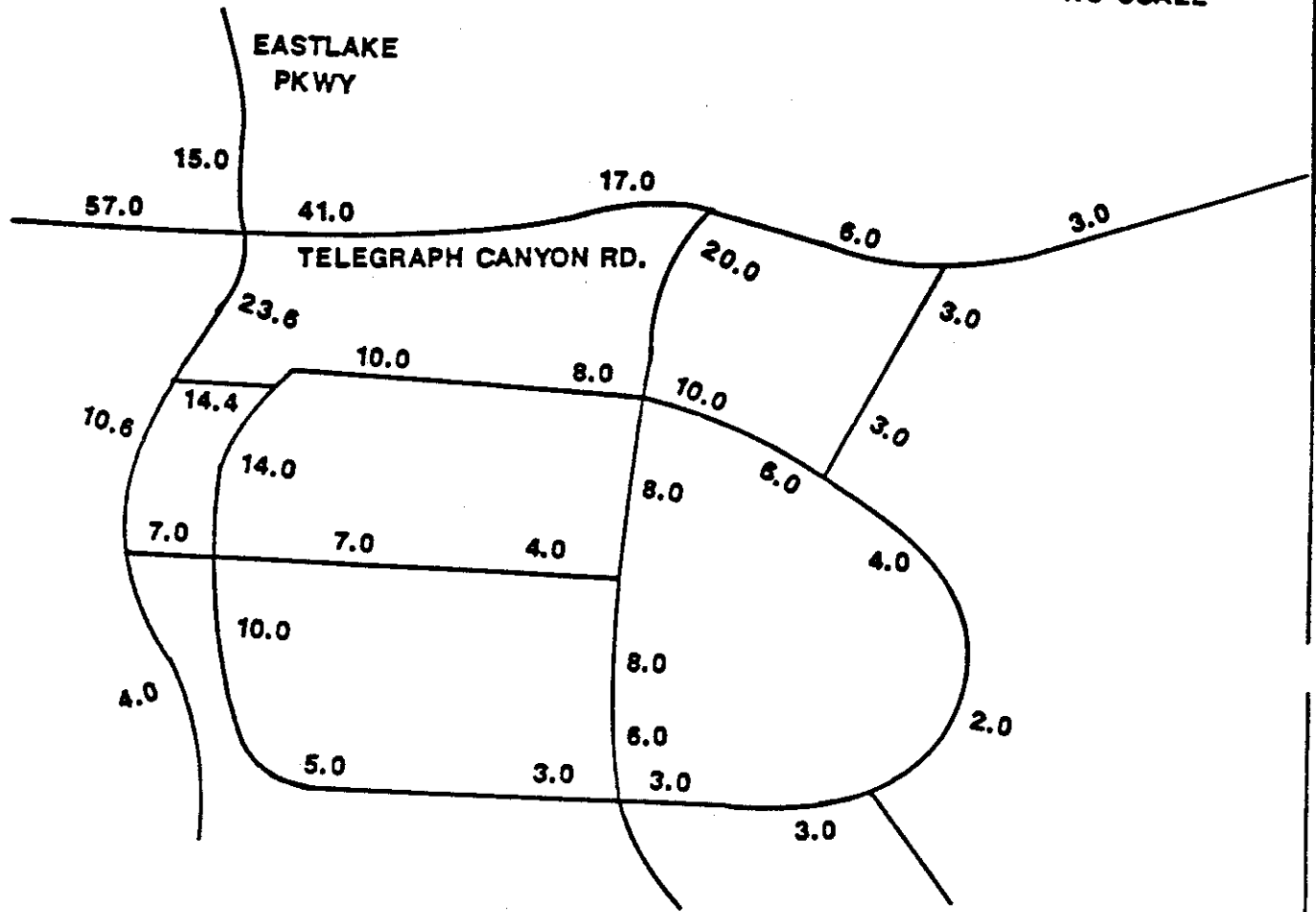
Figure 8 shows projected short term cumulative volumes on the project's internal street system and surrounding street system. As can be seen, this street network will operate at acceptable levels of service on all segments. EastLake Parkway will be the street most impacted on site, however, a four lane major would accommodate projected volumes at LOS C on most sections.

The EastLake Company has submitted Tentative Maps for the project site to the City of Chula Vista. Internal project intersection geometrics and ICU calculations have also been submitted to the City for review. It is our understanding that these intersection designs are based on a specific detailed peak hour analysis, which is not appropriate for the purpose of this analysis.

The current Site Utilization Plan does not show individual lots. Specific access to individual lots should be coordinated with the City Traffic Engineer when Tentative Maps are submitted.



NO SCALE



VOLUMES ON PROJECT INTERNAL STREET
SYSTEM (IN THOUSANDS)

FIGURE 8



WILLDAN ASSOCIATES

MITIGATION MEASURES

The proposed EastLake II (Greens and Trails) will generate approximately 64,000 ADT with 4,650 and 6,420 occurring during the AM and PM peak hours, respectively. Most of the external trips will have destinations north and west of the project site and use proposed State Route 125 and Telegraph Canyon Road.

In this analysis, we have identified both cumulative and site specific impacts. It is understood that an overall capital improvement program, including a phasing and financing plan, is being developed. It is anticipated that all study area developers will participate on a proportionate basis.

This Eastern Territories Capital Improvement Program (CIP) is expected to utilize funding techniques such as Assessment District, Facility Benefit Assessments, and reimbursement agreements. It will further tie the issuance of building permits to the construction of street improvements.

The analysis indicated potential site specific and cumulative impacts along Telegraph Canyon Road east of proposed State Route 125.

In order to mitigate the site specific impacts the following need to be completed:

1. Improve Telegraph Canyon Road between State Route 125 and the East-Lake II boundary to six lane prime arterial standards.
2. Construct Hunte Parkway and EastLake Parkway as major roads between Telegraph Canyon Road and Orange Avenue.
3. Construction of a southbound State Route 125 to eastbound Telegraph Canyon Road loop ramp at the State Route 125/Telegraph Canyon Road intersection or extend State Route 125 south to East Palomar Street (which would connect to the EastLake II street system).

The off site cumulative impacts can be mitigated to insignificant levels by participating in the East Chula Vista Transportation Phasing Plan on a fair share basis with other area developers. This phasing plan will tie road improvements to issuance of building permits and designate threshold levels to insure improvements are completed when capacity is needed. As development plans change and/or economic conditions change, the area-wide transportation phasing should be reevaluated when deemed appropriate by the City Engineer.

Internal to the project, individual subdivisions shall construct the internal loop street to Class II collector standards, with entry roads widened out to accommodate a median. Traffic signals shall be installed at intersections of major roads with prime arterials and project access points with Circulation Element streets where signal warrants are met. Traffic signals shall also be constructed at both north and south entry roads with the project loop street. Signals shall be installed if warrants are met and the City Engineer determines they are needed.



A P P E N D I X

Table 1

Descriptions of Conditions for Various Levels of Service

<u>Level of Service</u>	<u>Operating Conditions</u>
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 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.

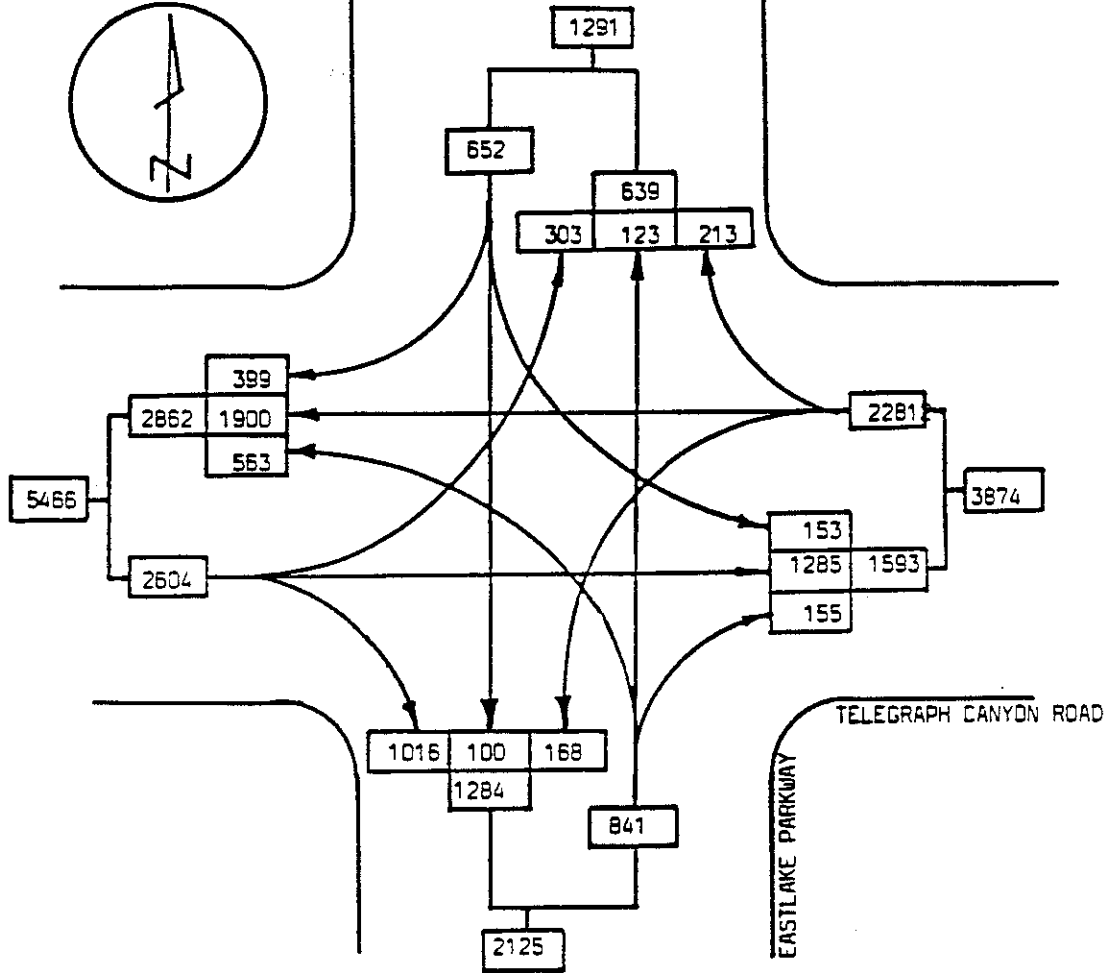
Table A-2

Level of Service Ranges

Maximum Sum of Critical Volumes in VPH

<u>Level of Service</u>	<u>Typical V/C Ratio</u>
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
	varies





ICU ANALYSIS

Assume E/B Telegraph Canyon Road	2 left, 2 through, 2 free right
W/B Telegraph Canyon Road	2 left, 3 through, 1 right
N/B EastLake Parkway	2 left, 1 through, 1 through + right
S/B EastLake Parkway	1 left, 2 through, 1 right

$$\frac{1900}{5100} + \frac{303}{3000} + \frac{100}{3000} + \frac{563}{3000}$$

$$.37 + .10 + .10(\text{min}) + .19 = .76 \text{---LOS C}$$

PM PEAK HOUR

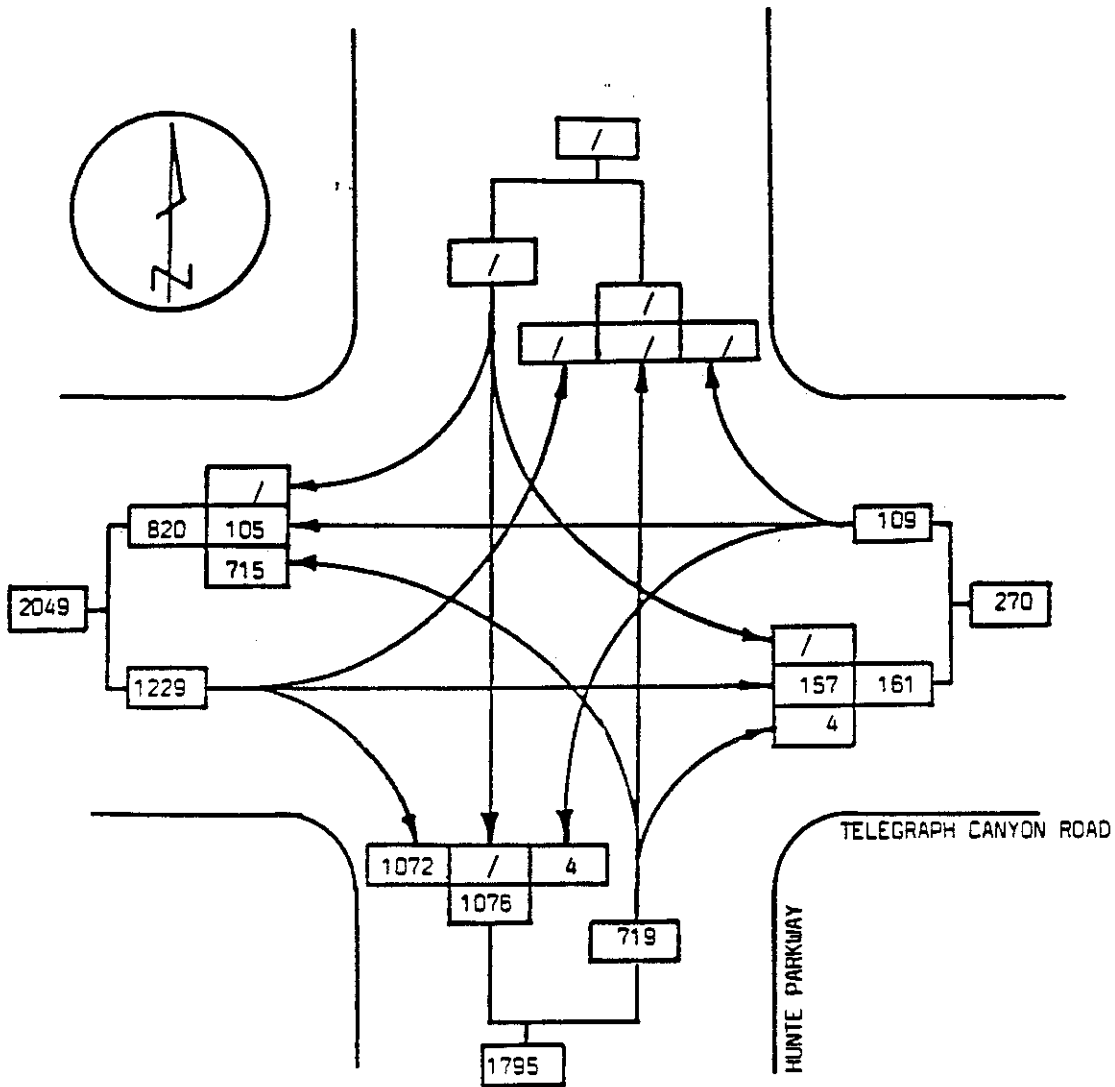
FIGURE A - 1

TELEGRAPH CANYON ROAD/EASTLAKE PARKWAY

SHORT TERM CUMULATIVE - EASTLAKE II BUILDOUT



WILLDAN ASSOCIATES



ICU ANALYSIS

Assume E/B Telegraph Canyon Road
 W/B Telegraph Canyon Road
 N/B Hunte Parkway

2 through, 2 right
 1 left, 2 through
 2 left, 1 right

$$\frac{1072}{3000} + \frac{4}{1500} + \frac{715}{3000}$$

$$.36 + .10(\text{min}) + .24 = .70 \text{---LOS B}$$

TELEGRAPH CANYON ROAD/HUNTE PARKWAY

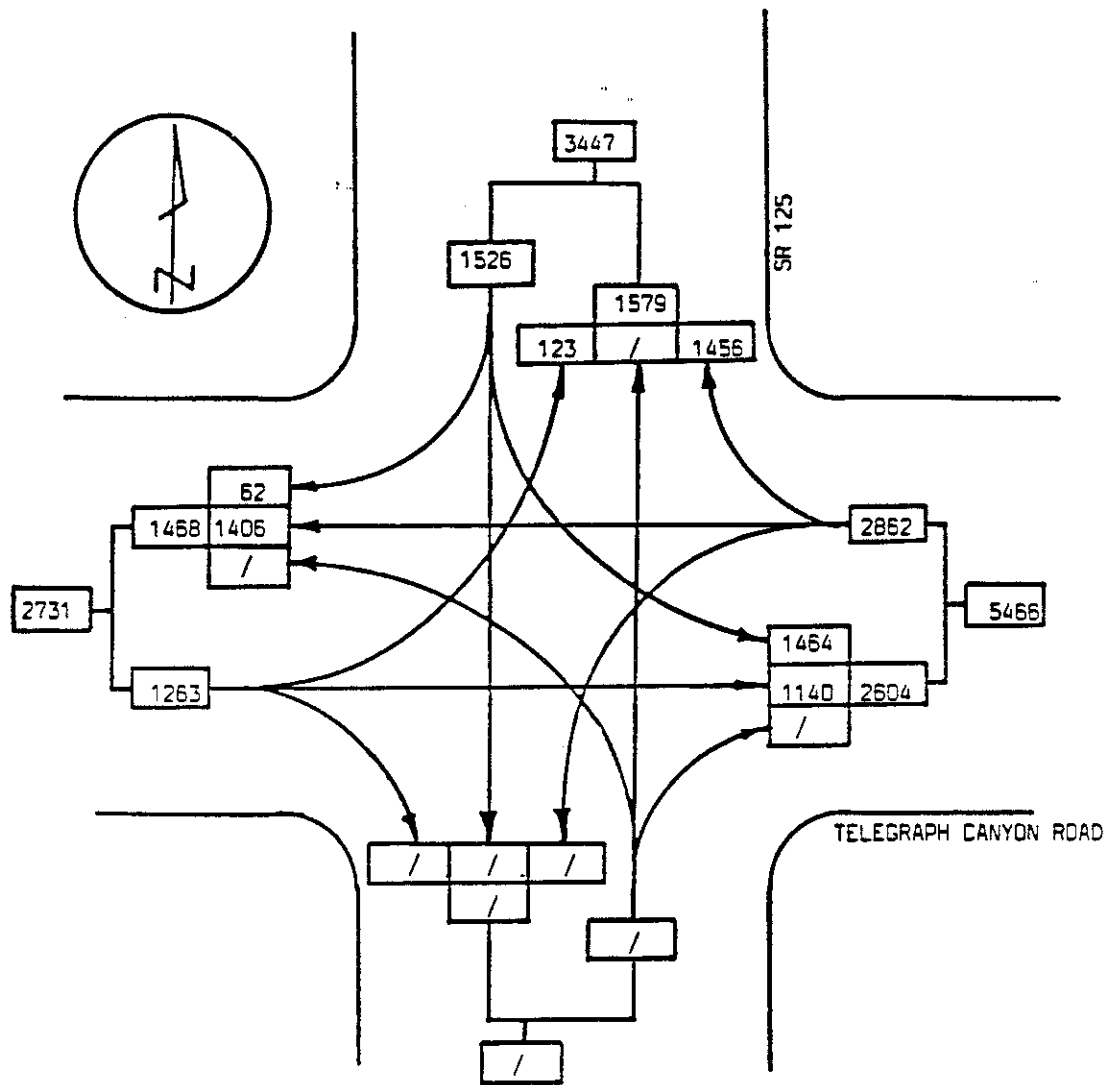
SHORT TERM CUMULATIVE - EASTLAKE II BUILDOUT

PEAK HOUR

FIGURE A - 2



WILLDAN ASSOCIATES



ICU ANALYSIS

E/B Telegraph Canyon Road 1 left, 3 through
 W/B Telegraph Canyon Road 3 through, 2 free right
 S/B SR 125 2 left, 1 right

$$\frac{1406}{5100} + \frac{123}{1500} + \frac{1464}{3000}$$

$$.28 + .10(\text{min}) + .49 = .87\text{---LOS D}$$

Construct S/B to E/B loop ramp

$$\frac{1406}{5100} + \frac{123}{1500}$$

$$.28 + .10(\text{min}) = .38\text{---LOS A}$$

PEAK HOUR

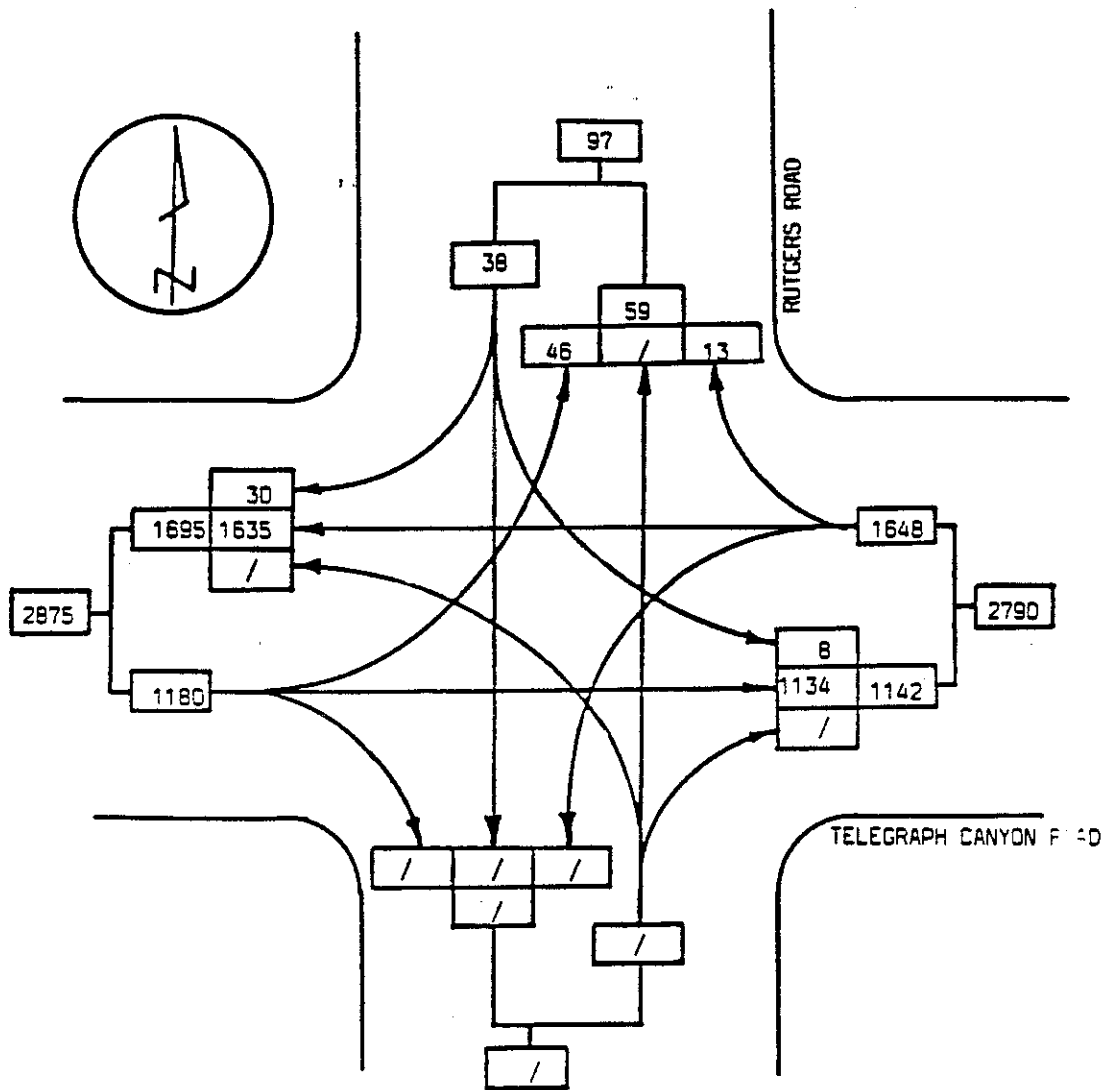
FIGURE A - 3

TELEGRAPH CANYON ROAD/SR 125

SHORT TERM CUMULATIVE - EASTLAKE II BUILDOUT



WILLDAN ASSOCIATES



ICU ANALYSIS

Assume E/B Telegraph Canyon Road
 W/B Telegraph Canyon Road
 S/B Rutgers Road

1 left, 3 through
 2 through, 1 through + right
 1 left, 1 right

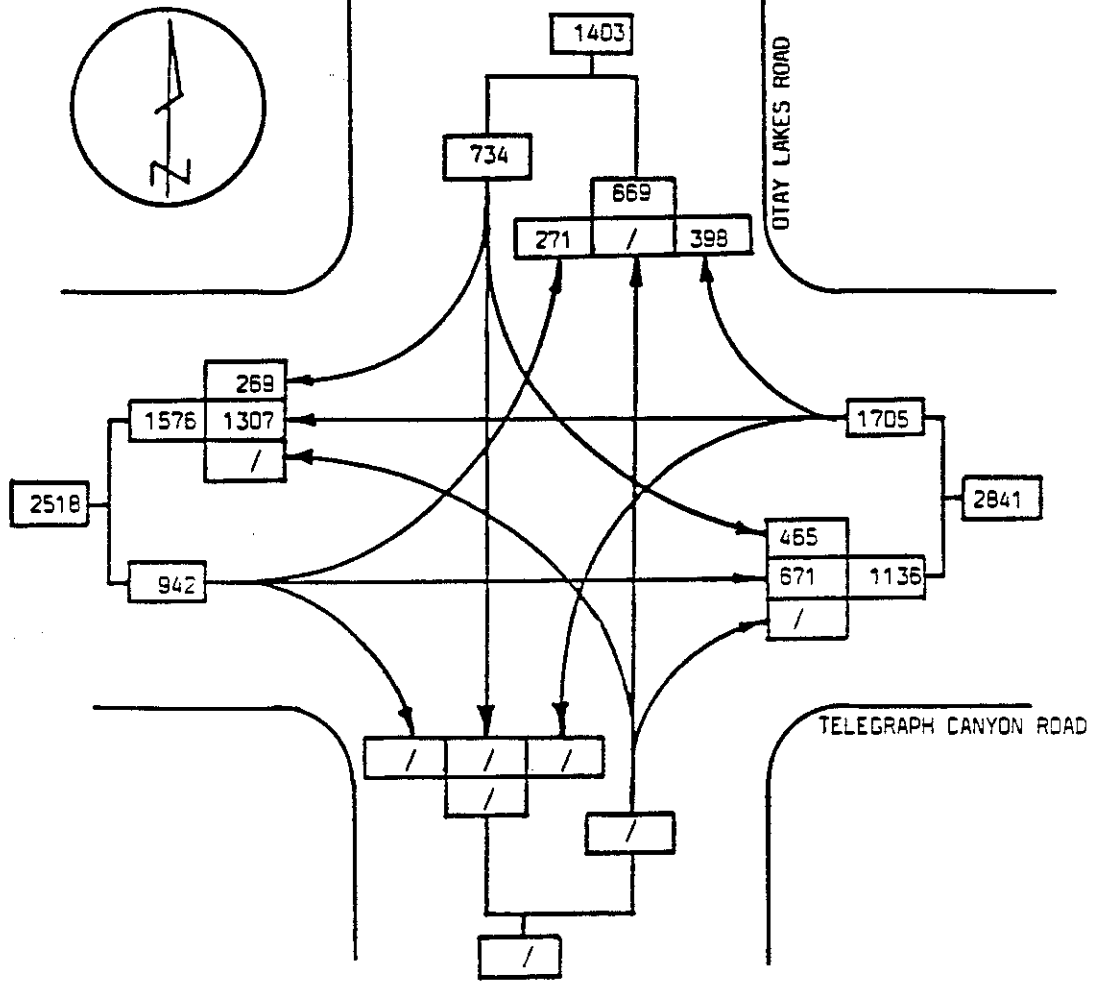
$$\frac{1635 + 13}{5100} + \frac{46}{1500} + \frac{30}{1500}$$

$$.32 + .10(\text{min}) + .10 \text{ min} = .52 \text{---LOS A}$$

TELEGRAPH CANYON ROAD/RUTGERS ROAD
 SHORT TERM CUMULATIVE - EASTLAKE II - BUILDOUT

PEAK HOUR

FIGURE A - 4



ICU ANALYSIS

Assume E/B Telegraph Canyon Road
 W/B Telegraph Canyon Road
 S/B Otay Lakes Road

2 left, 2 through
 2 through, 1 right
 2 left, 1 right

$$\frac{1307}{3400} + \frac{271}{1500} + \frac{465}{3000}$$

$$.38 + .18 + .16 = .72 \text{---LDS C}$$

TELEGRAPH CANYON ROAD/OTAY LAKES ROAD

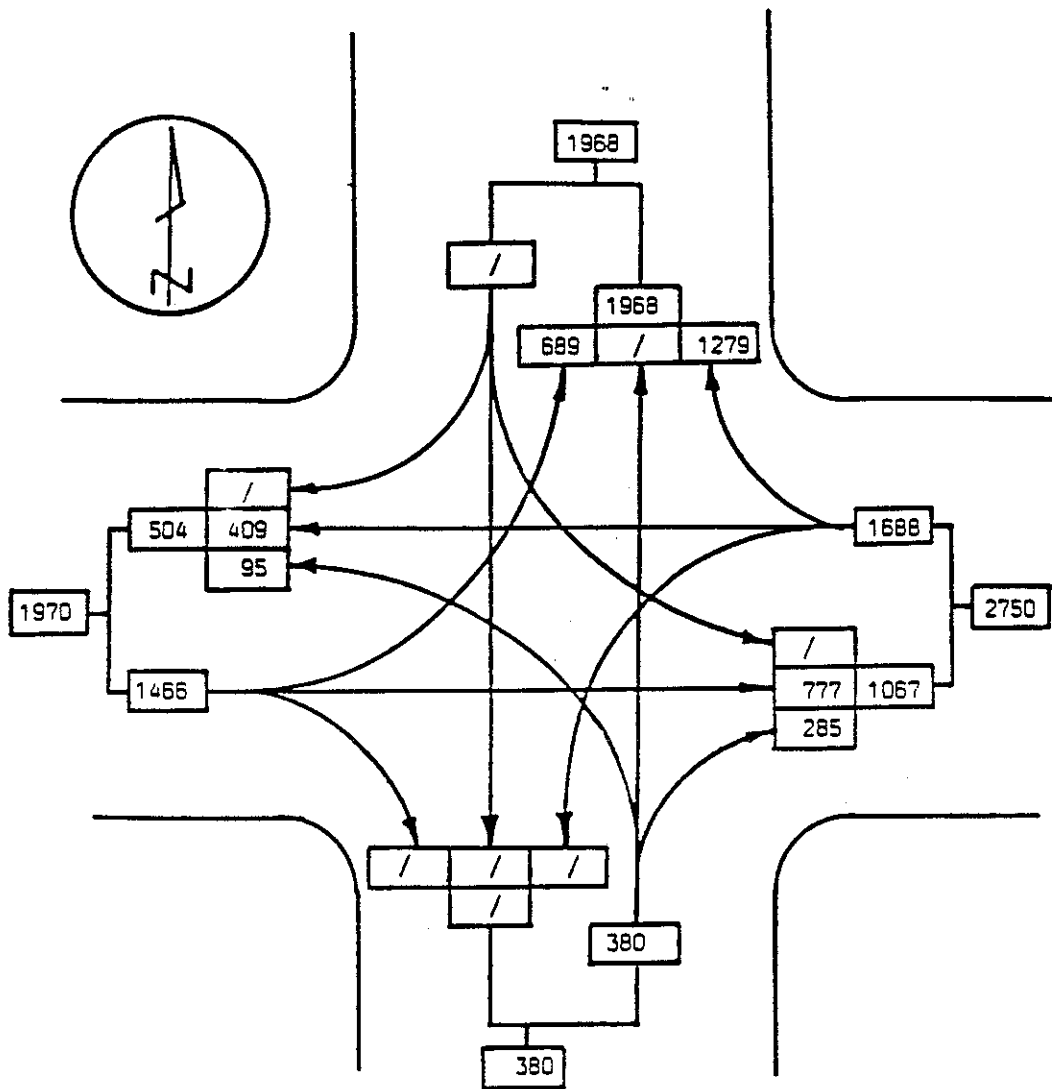
SHORT TERM CUMULATIVE - EASTLAKE II BUILDOUT

PEAK HOUR

FIGURE A - 5



WILLDAN ASSOCIATES



ICU ANALYSIS

Assume W/B Telegraph Canyon Road
 E/B Telegraph Canyon Road
 N/B I-805 Offramp

2 through, 2 right
 2 left, 2 through
 1 left + right, 1 right

$$\frac{1279}{3000} + \frac{689}{3000} + \frac{285 + 95}{3000}$$

$$.43 + .23 + .13 = .79 \text{----LOS C}$$

PEAK HOUR

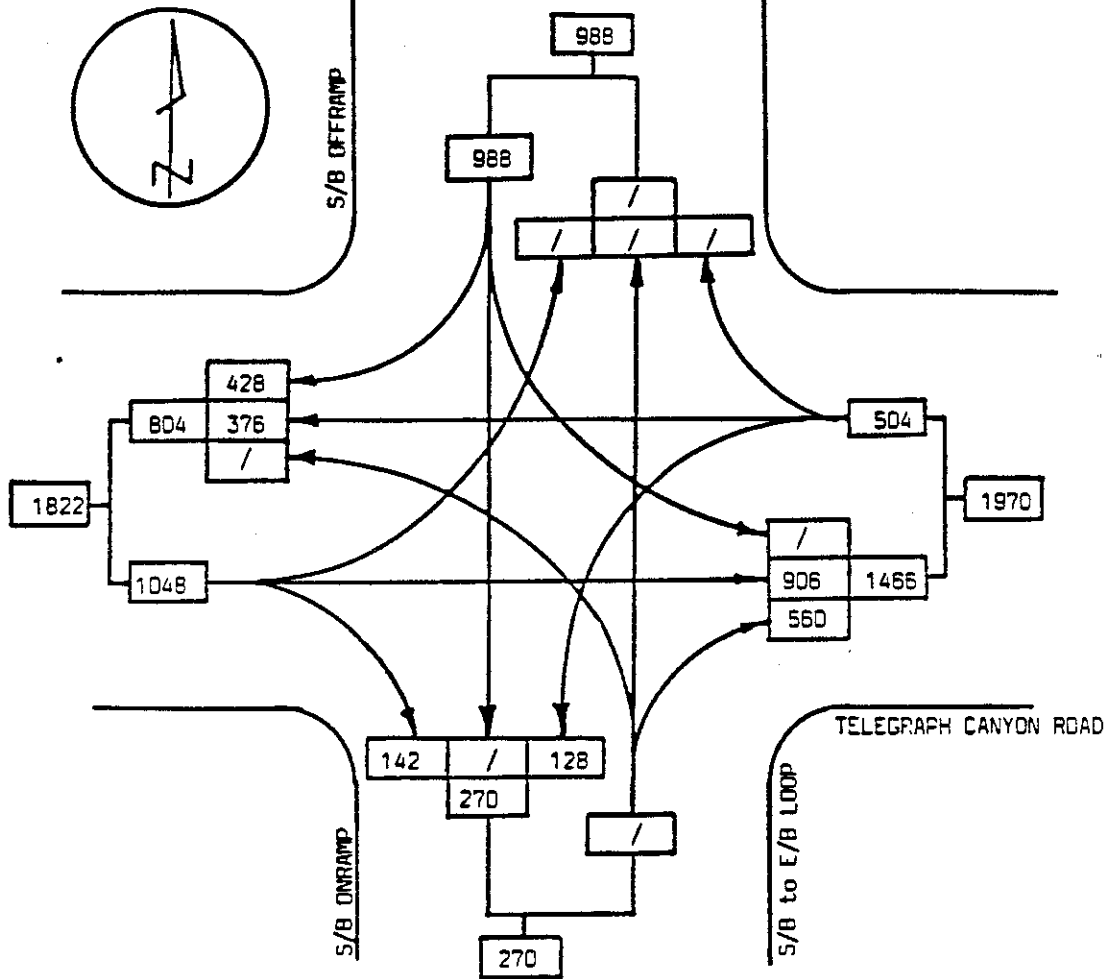
FIGURE A - 6

T-805 N/B ON-OFFRAMP/TELEGRAPH CANYON ROAD

SHORT TERM CUMULATIVE - EASTLAKE II BUILDOUT



WILLDAN ASSOCIATES



ICU ANALYSIS

E/B Telegraph Canyon Road
 W/B Telegraph Canyon Road
 S/B I-805 Offramp

2 through, 1 right
 1 left, 2 through
 1 right

$$\frac{906}{3400} + \frac{128}{1500} + \frac{428}{1500}$$

$$.27 + .10(\text{min}) + .29 = .66 \text{---LOS B}$$

PEAK HOUR

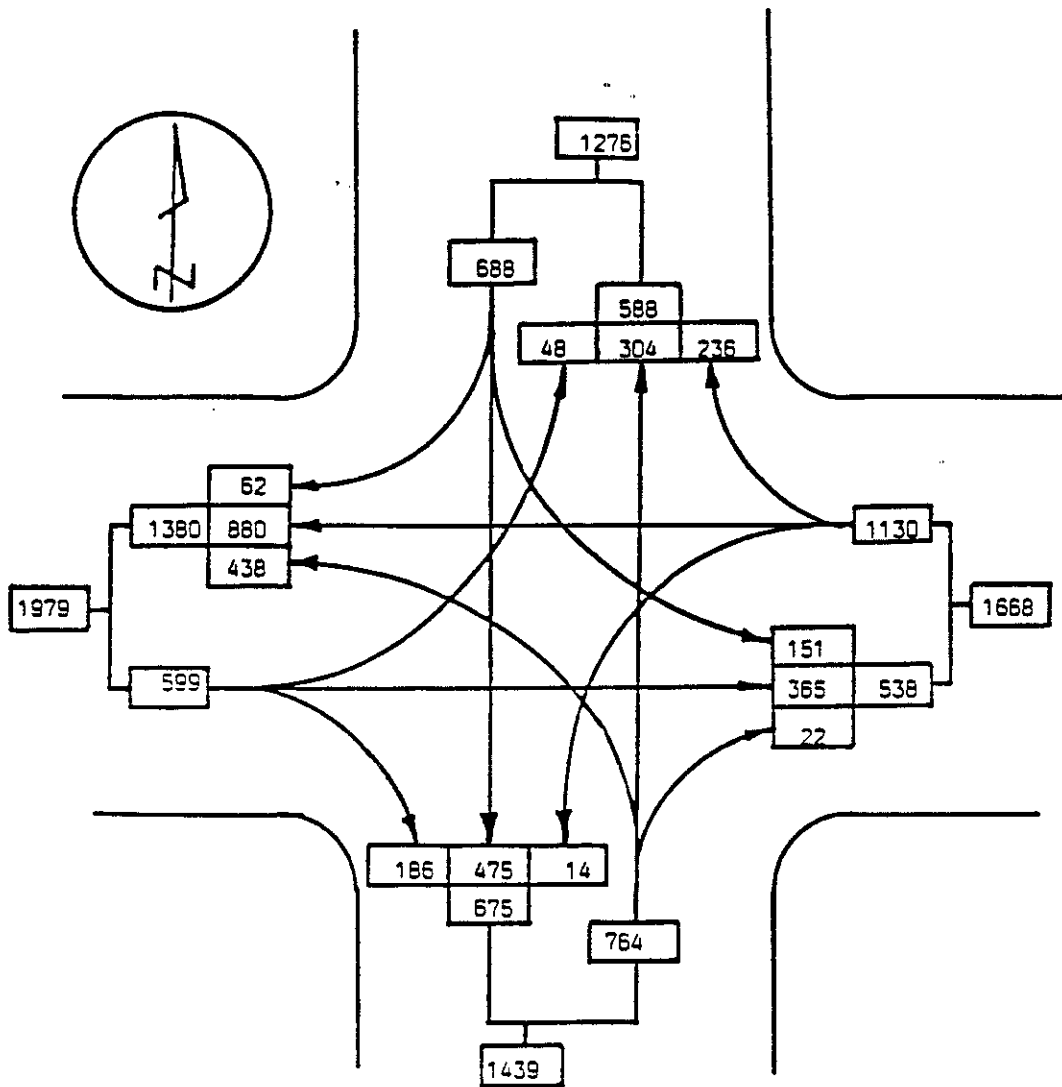
I-805 S/B ON & OFFRAMP/TELEGRAPH CANYON ROAD

FIGURE A - 7

SHORT TERM CUMULATIVE - EASTLAKE II BUILDOUT



WILLDAN ASSOCIATES



ICU ANALYSIS

Assume E/B East "H" Street 1 left, 2 through, 1 right
 W/B East "H" Street 1 left, 1 through, 1 through + right
 N/B Otay Lakes Road 2 left, 1 through, 1 through + right
 S/B Otay Lakes Road 1 left, 1 through, 1 through + right

$$\frac{980 + 236}{3400} + \frac{48}{1500} + \frac{475 + 62}{3400} + \frac{438}{3000}$$

$$.33 + .10(\text{min}) + .16 + .15 = .74 \text{---LOS C}$$

PEAK HOUR

EAST "H" STREET/OTAY LAKES ROAD

SHORT TERM CUMULATIVE - EASTLAKE II BUILDOUT

FIGURE A - 8



II. ENVIRONMENTAL ANALYSIS

A. NOISE

1. Existing Conditions

The site is currently undeveloped and has no on-site noise sources. Otay Lakes Road is located approximately 3500 feet north of the site and does not contribute to the noise environment.

The City of Chula Vista through its noise control ordinance has developed sound level limits for various land uses. The maximum sound level permitted is a function of land use and time of day. The sound level is measured by an hourly Equivalent Sound Level (L_{eq}) using the A-weighted scale at the boundary or at any point within the boundary of the receiving land use. L_{eq} is the average sound level measured over a period of time. The City's maximum permitted exterior sound levels for environmental noise in residential areas are summarized in Table 2-1.

Table 2-1
SUMMARY OF RESIDENTIAL SOUND LEVEL LIMITS

Receiving Land Use Category	Environmental Noise Noise Level (dBA L_{eq})	
	7:00 a.m.- 10:00 p.m.	10:00 p.m.-7:00 a.m.
Single-family Residential	55	45
Multi-family Residential	60	50

2. Impacts

The proposed project consists of a clubhouse, golf course driving range, and tennis courts with a 200-person seating area for spectators. A public address system will be utilized at the clubhouse to provide information to the patrons. The expected hours of operation for the clubhouse and driving range are from dawn to

10:00 p.m. The tennis courts will be open from 7:00 a.m. to 10:00 p.m. Maintenance activities will begin at dawn and include operations such as mowing, fertilizing, seeding, and repairs.

Sensitive receptors include single-family residences that are planned to be built approximately 320 feet north of the clubhouse, 360 feet northwest of the driving range tees and 600 feet northwest of the tennis courts. Multi-family residences are planned for lots approximately 250 feet south of the tennis court spectator area.

The primary sources of noise expected to be generated by the project are crowd noise, noise from the public address system, and noise from maintenance activities. Crowd noise will be generated primarily at the tennis court spectator area. Precise noise levels cannot be quantified at this time, but sound level measurements conducted at public sporting events and extrapolated to this project indicate that the sound level will range from an average of approximately 60 to 70 dBA L_{eq} with a maximum sound level of 81 dBA at 50 feet from the source. The noise level will depend on the size of the audience and nature of the event. Crowd noise is not considered to be a significant impact to any residential land use.

The speakers of the public address system at the clubhouse will be directed away from sensitive receptors. The system will provide for variable amplification and will be calibrated to below a nuisance level. The public address system will not exceed the City's noise standards and is not considered to be the source of a significant impact.

Noise associated with golf course maintenance activities are primarily from power equipment such as lawn mowers and tractors. Noise generated from these sources may exceed 80 dBA at 50 feet from the source. Lawn mower and tractor noise may exceed the City's noise standards and be a significant impact if the activity occurs in close proximity to a residence prior to 7:00 a.m. In general, early morning maintenance within 200 feet of residences will disturb sleep and generate complaints.

3. Mitigation Measures

Noise from maintenance activities which use power equipment such as lawn mowers and tractors shall be mitigated by restricting the hours of use to after 7:00 a.m. for areas within 200 feet of any residential building. In addition, all power equipment shall be maintained in proper working order and be fitted with the required mufflers.

4. Analysis of Significance

Noise generated by use of power equipment for golf course maintenance may create a significant impact if used within 200 feet of a residential building prior to 7:00 a.m. Mitigation of this impact can be achieved by restricting the hours of maintenance activity and keeping equipment in proper working order.

5. Mitigation Monitoring

The operator shall maintain a maintenance complaint log which will identify the nature of the complaint, location of the complaint and the action taken to investigate the complaint and eliminate the nuisance. The complaint log shall be available to the City of Chula Vista on request.

B. LIGHT AND GLARE

The discussion on light and glare impacts from the driving range lighting system is based on a computer simulation and study conducted by Golf Lighting and Development of Jacksonville, Florida in March 1990.

1. Existing Conditions

The site is currently undeveloped and has no on-site light sources.

2. Impacts

The area surrounding the clubhouse will have security lights on 12-foot poles and small accent lights. The tennis courts will be lit with 18 foot poles. These light

sources will be shielded to prevent light trespassing and are not expected to have any significant impacts.

The driving range will have five 50-foot poles with three 1500-watt metal halide fixtures on each pole to provide horizontal illumination for the tee area. The lighting equipment will be equipped with glare-control hardware to reduce glare and light spill impacts to surrounding areas. The driving range will also have a ground-lighting system consisting of six 5-foot bulkhead walls with two 1500-watt metal halide fixtures at each location to provide the vertical illumination necessary to follow the trajectory of golf balls downrange from the tee area. This lighting will also be equipped with glare-control hardware.

The study examined five areas of potential impacts: Hunte Parkway, the recreation area south of the driving range, and three adjacent residential areas.

- Hunte Parkway. Travellers on the parkway would have a direct view of the ground lighting sources as the ground lighting would be oriented towards the parkway. This impact would be significant. The pole lighting is not expected to have a significant impact because of the aiming angles and glare control hardware.
- Recreation area. The orientation of the ground lighting to the recreation area lessens the effects of the ground lighting, although some glare may occur; this is a potentially significant impact. Any spill effects from pole lighting would not be considered significant due to the recreational use of the area. This area would act as a buffer between the light sources and residential development to the south of Clubhouse Drive.
- Multi-family residential (north). Glare from the ground lighting would affect the multi-family development to the north of the driving range because of the orientation of the lighting and the final grading elevations.
- Single-family residential (northwest). Residents in the single-family homes to the northwest would see the facility at night but the light sources would not be visible and spill light would not have an impact. Glare would not be a problem.

- Single-family residential (east of Hunte Parkway) The ground lighting would be oriented towards the single-family homes east of Hunte Parkway, although the final grading elevation differences would partially mitigate the impact of the glare.

3. Mitigation Measures

- All light fixtures in the proposed facility shall use glare-control hardware.

In addition, the following measures shall be incorporated to mitigate specific impacts which would occur even with the use of glare-control equipment.

- To mitigate the impacts to Hunte Parkway and residential development to the east, the project shall incorporate an enlarged earth berm, a landscape buffer, or a combination of both at the back of the drive range.
- To mitigate the impacts to the recreation area, the project shall incorporate a landscape buffer and extended wing walls on the ground lighting bulkhead walls.
- To mitigate the impacts to the multi-family residents to the north the project shall incorporate one of the following options:
 - Orientation and increase height of the ground-lighting bulkhead walls to restrict direct view of the light source.
 - Additional berm height and landscaping along the north side of the golf practice facility to block view of the light sources.
 - Landscaping at the individual ground lighting locations to block the view of the light sources.

4. Analysis of Significance

The impact of the lighting on adjacent areas can be minimized to acceptable levels by the correct orientation of lighting equipment, the application of glare control equipment, and a combination of earth berming and landscaping.

5. Mitigation Monitoring

Prior to issuance of the use permit for the driving range, a qualified lighting consultant shall measure the glare and spill effects to ensure that the proposed mitigation measures are adequate. Any additional mitigation measures deemed necessary by the lighting consultant shall be installed prior to issuance of the use permit.

The golf course operator shall maintain a complaint log which will identify the location and nature of the complaint and the action taken to investigate and eliminate the problem. The complaint log shall be available to the City of Chula Vista on request.

C. HAZARDOUS MATERIALS AND WASTES

1. Existing Conditions

The site is presently undeveloped with no known hazardous materials onsite.

2. Impacts

Pesticides

A wide variety of pesticides (insecticides, fungicides, and herbicides) in limited quantities are intended to be used throughout the golf course to control insect, plant, and fungal hazards. Table 2-2 outlines the pesticides expected to be used on the golf course grounds. Other products may be considered as conditions warrant. The handling, storage and disposal of pesticides is a potentially significant impact to public health if federal state and local guidelines and regulations are not followed.

Table 2-2

PESTICIDES AND FERTILIZERS EXPECTED FOR USE
AT THE EASTLAKE GOLF COURSE

Product	Manufacturer	Use
Betasan 4-E	Stauffer Chemical	Selective herbicide
MCCP	W. A. Cleary Chemical	Herbicide
PROGRASS EC	Nor-Am Chemical Co.	Herbicide (weed, tree)
Dylox 80	Mobay Chemical Corp.	Insecticide
DURSBAN 50W	Dow Chemical Co.	Insecticide
TERSAN 1991	DuPont	Turf fungicide
FORE Fungicide	Rohm and Haas Co.	Fungicide
Daconil 2787	Fermenta Plant Protection	Flowable fungicide
BAYLETON 25	Mobay Chemical Co.	Turf, and ornamental fungicide
Calcium Nitrate	WGM/Hydro	Fertilizer
Greens King	J. R. Simplot Co.	Fertilizer blend
Ultra		
6-20-20M	J. R. Simplot Co.	Fertilizer
XB 6-20-20-	J. R. Simplot Co.	Fertilizer
8(S)-1.5(Fe)- 1.5(Zn)		
Nitra King	J. R. Simplot Co.	Fertilizer blend
(22-3-9)		
Turf Supreme	J. R. Simplot Co.	Fertilizer
+ Best Cote		

The Material Safety Data Sheets (MSDSs) will be kept on file and readily available for the grounds staff to review. Concerning storage and disposal, EastLake Development Company has stated that they (or the operations/manager of golf course) will follow reasonable and necessary guidelines as outlined by federal, state and local regulatory entities. The pesticides will be stored within a building in a special area with 6-inch concrete containment berms (Figure 1-4). Pesticide containers 28 gallons or less will be triple rinsed with water or the appropriate solvent and then thoroughly drained. The container will then be placed in a plastic bag.

Fertilizers

Fertilizers are substances which are added to soil to increase the development and maturity of the plants and grasses under cultivation. EastLake Golf Course grounds maintenance staff intend to use commercially available fertilizers as an integral part of their turf maintenance program. The types of fertilizers to be used are classified as artificial, meaning that the compounds are produced in chemical plants, as opposed to natural fertilizers such as manures. Artificial fertilizers may be organic or inorganic and often are a mixture. This group of fertilizers can be subdivided further according to their main components, such as nitrogen, potassium, phosphorus, and trace metals. Table 2-2 summarizes the fertilizers that are expected to be used on the EastLake Golf Course site. The handling, storage, and disposal of fertilizers is a potentially significant impact to public health if federal, state, and local guidelines and regulations are not followed.

EastLake Development Company has stated that fertilizers and pesticides will be stored in a building. The fertilizers will be stored away from the pesticides and the storage is expected to be short term.

Motor Fuels and Waste Oils

Gasoline and diesel fuel will also be stored and used at the EastLake Golf Course for vehicles and grounds maintenance equipment. The fuels will be stored in 1000 gallon underground storage tanks. All applicable state and local codes and regulations will be followed.

Waste oil from vehicles and turf management equipment will be collected and stored in a double walled container with a containment structure. The handling, storage, and disposal of fuels and oil is a potentially significant impact to public health if federal, state, and local guidelines and regulations are not followed.

3. Mitigation Measures

The following mitigation measures will prevent significant public health impacts from the handling, storage, and disposal of the pesticides, fertilizers, and fuel and oils.

As required by OSHA and EPA regulations, an inventory of hazardous materials should be maintained and updated periodically.

Pesticides

- EastLake Golf Course management and personnel shall follow prudent health and safety practices while handling, storing, and using pesticides. Handling and use of pesticides require the use of personal protective equipment and adherence to good personal hygiene practices.
- Pesticide applicators must be 18 years of age or older and must receive adequate training in the proper use of pesticides.
- Employees must receive training in the necessary safety procedures they should follow and the safety equipment they should use in accordance with the requirements on the product label or MSDS.
- A place to wash and change clothing after work must be provided for employees whose exposure to pesticides that carry the signal word "DANGER" or "WARNING" may exceed 30 hours in 30 days.
- Clean water, soap, and towels for personal use must be available at locations where employees may mix or load pesticides that carry the signal words "DANGER" or "WARNING."

- The storage building must have the proper warning notices posted and visible from all areas of approach. Further, notices must be posted in all storage areas where containers which hold or have held pesticides are required to be labeled with the WARNING or DANGER wording. The pesticides must be stored in accordance with the storage recommendations on the product label.
- EastLake Golf Course gardeners shall carefully follow the transport requirements for pesticides. Pesticides must be transported in a separate compartment of a vehicle away from employees and food. Any pesticide container which is transported must be secured to the vehicle in a manner that prevents spillage onto or off the vehicle.
- Regarding disposal, the rinsates from the pesticide containers shall be collected in a waste receptacle. Arrangements shall then be made for a contract disposal company to properly dispose of the bagged containers and rinsates.

Fertilizers

- The storage and handling of the fertilizers shall follow the guidelines as stated on the MSDSs which shall accompany or precede the delivery of any commercial material defined as hazardous.
- Fertilizers shall be stored in a dry, cool location away from strong oxidizers and strongly alkaline materials. Failure to follow these recommendations could lead to an incompatible reaction resulting in the generation of heat and toxic gases.
- When the turf maintenance crew is handling the fertilizers, the applicators shall be provided with appropriate personal protective equipment. Training on the use and limitations of the protective equipment shall accompany the issuance of the equipment. Gloves, protective clothing, and dust respirators are prudent control measures to reduce contact with the fertilizers and minimize possible adverse health effects.

Waste Fuels and Waste Oils

- The primary container used for the storage of motor vehicle fuels shall be composed of glass-fiber reinforced plastic, cathodically protected steel, or steel clad with glass-fiber reinforced plastic.
- A leak interception and detector system which precludes the contact of any leaked hazardous substance with the ground water shall be installed. At a minimum, the leak interception and detection system shall be above the highest anticipated ground water elevation. The floor of the leak interception and detection system shall be constructed on a firm base and sloped to a collection sump. An access casing shall be installed in the collection sump to collect any liquid that may be moving along the upper surface of the leak interception and detection system.
- A response plan must be developed for an unauthorized release. This plan shall include the following: the volume of the leak interception and detection system in relation to the volume of the primary container; the amount of time the leak interception and detection system must provide containment in relation to the period of time between detection of an unauthorized release and cleanup of the leaked materials; the depth from the bottom of the leak interception and detection system to the highest anticipated level of ground water; the nature of the unsaturated soils under the leak interception and detection system and the ability of that soil to absorb contaminants or allow vertical movement of contaminants; and the methods and scheduling to remove all the hazardous substances which have been discharged from the primary container.
- The waste oil shall be disposed of by a licensed waste disposer. Efforts shall also be made to pursue recycling as there are numerous used motor oil waste recyclers. This would help to reduce the number and amount of waste streams emanating from the golf course.

4. Analysis of Significance

Implementation of the proposed mitigation measures in conjunction with conformance to all applicable federal, state, and local guidelines and regulations will reduce the potential impacts to public health to below a level of significance.

5. Mitigation Monitoring

Pesticides and Fertilizers

The operators of the golf course shall keep logbooks documenting employee training, hazardous materials inventory, and manifests from the contract disposal company. These log books shall be available to the City of Chula Vista on request.

Waste Fuels and Oils

Proof that the leak interception and detection system will protect the ground water must be demonstrated by EastLake to the satisfaction of the Department of Health prior to the issuance of the Use Permit for the golf course.

Monitoring of the leak interception and detection system shall include a continuous monitoring device connected to an audible/visible alarm system or manual monitoring performed daily. A written routine monitoring plan must also be prepared which addresses:

1. The frequency of performing the monitoring method,
2. The methods and equipment,
3. The location(s),
4. Named or titles of the people responsible for performing the monitoring and/or maintenance of the equipment, and
5. The reporting format.

The operators of the golf course shall maintain log books documenting hazardous materials inventory and manifests from the licensed waste disposers. The logs shall be available to the City of Chula Vista on request.

D. HYDROLOGY/WATER QUALITY

The hydrology issues to be examined in this addendum are potential degradation of ground-water quality, and public health aspects related to the use of reclaimed water for irrigation of the roughly 130-acre golf course.

1. Existing Conditions

Ground-water Quality

The EastLake Greens golf course generally lies in the Salt Creek area of Otay Hydrographic Subunit (HSU) 10.2. This area is at the extreme northern end of the HSU, and has been defined as lands within and tributary to Salt Creek on the east and Poggi Canyon on the west and including the several smaller drainage courses between these tributaries of the Otay River (California Regional Water Quality Control Board [CRWQCB], San Diego Region 1988). A small portion of the northwest corner of the EastLake Greens development drains into Telegraph Canyon (HSU 9.11).

The Salt Creek area is a non-alluvial portion of the Otay HSU ground-water basin, and no ground water is being used at this time (NBS/Lowry 1988). Historically, ground-water use was limited to a few bored wells for the headquarters of Rancho Janal and Otay Ranch, and a few dug wells for livestock watering. Significant ground-water use has never developed because of low yield and poor quality (NBS/Lowry 1988). Ground-water samples collected by the Otay Water District in the early 1980s had total dissolved solids (TDS) levels of 4100 mg/l and 4300 mg/l. Later analyses conducted as part of a 1986 geotechnical study by Gregg and Associates revealed TDS concentrations ranging from 2040 mg/l to 7330 mg/l, and averaging 4200 mg/l (NBS/Lowry 1988). The poor quality appears to be due to connate water within the San Diego Formation.

Poor ground-water quality is typical throughout alluvial portions of the Otay HSU. In 1975, the Comprehensive Water Quality Control Plan Report noted ground water within the HSU was marginal to inferior for domestic and irrigation uses because of high TDS and/or chloride concentrations, and future improvement of ground-water quality was unlikely (CRWQCB, San Diego Region 1975). Recent samples

collected by Otay Water District from the few active wells in the HSU had TDS levels ranging from 1373 mg/l to 2065 mg/l and averaging 1719 mg/l (NBS/Lowry 1988).

Public Health

Discharges of reclaimed water are regulated by the Regional Board. In adopting waste discharge requirements for discharges from reclamation projects, the Regional Board, under Section 13263 of the Porter-Cologne Act, is charged with preventing health hazards, pollution and nuisances. In addition, the regional Board is required by Section 13523 of the Porter-Cologne Act to include the Wastewater Reclamation Criteria, developed for protection of public health by the State Department of Health Services (Title 22 criteria), in requirements for discharges of reclaimed water. Waste discharge requirements adopted by the Regional Board routinely implement the State Department of Health Services' Wastewater Reclamation Criteria. The Regional Board is empowered to enforce their adopted waste discharge requirements, and implementation of mitigation measures consistent with Title 22 to prevent possible health hazards is part of their normal regulatory procedures.

The Wastewater Reclamation Criteria for California (CAC Title 22, Division 4, Chapter 3) require that "reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples" (State of California Department of Health Services 1978).

2. Impacts

Ground-water Quality

Using reclaimed water for irrigation of the EastLake golf course is not expected to significantly impact ground-water quality in Otay HSU. Salt balances conducted by NBS/Lowry indicate irrigation with potable water will increase the average TDS in the alluvial portions of the Otay HSU to roughly 2320 mg/l. Assuming application of 0.6 million gallons per day (mgd) of reclaimed water to the EastLake Greens golf course, future ground-water quality in the alluvium would stabilize at about 2360 mg/l (NBS/Lowry 1988). In the Salt Creek area, upstream of the alluvial portions of the Otay HSU, where the reclaimed water will be applied, existing ground-water quality is so poor that potential impacts are well below a level of significance. According to the San Diego Regional Board, it is conceivable that the use of reclaimed water for irrigation in the Salt Creek area may improve the quality of the connate water trapped there (CRWQCB, San Diego Region 1988)

The California Regional Water Quality Control Board (Regional Board) establishes waste discharge requirements for projects using reclaimed water. The requirements are designed to implement the Comprehensive Water Quality Control Plan (Basin Plan) by maintaining designated beneficial uses and water quality objectives. The Basin Plan was recently revised by the San Diego Regional Board to account for existing conditions in the Salt Creek area of the Otay HSU. On April 25, 1988, following a public hearings, the San Diego Regional Board adopted Resolution No. 88-49 which amended the Basin Plan by deleting all beneficial use designations except for industrial service supply, and all water quality objectives for ground water in the Salt Creek area of the Otay HSU. On May 16, 1989, the State Water Resources Control Board adopted Resolution No. 89-36, which approved the San Diego Regional Board's action. The State Board's resolution also required a ground-water quality monitoring program be established to provide the San Diego Regional Board and reclamation agencies with information concerning ground water conditions in the Salt Creek area and any potential effects on the remainder of the Otay HSU (California State Water Resources Control Board 1989). Provided this monitoring program is implemented, irrigating the EastLake Greens golf course with reclaimed water will be in conformance with the Basin Plan.

Public Health

Potential impacts to public health will be limited to below levels of significance through conformance to state regulatory requirements. In addition, irrigation program operating practices will help minimize public contact, ponding, and runoff, further protecting public health.

The EastLake Golf Course irrigation program involves high intensity maintenance to create acceptable playing conditions and overall aesthetics. The operation and maintenance practices planned also will minimize public contact with the reclaimed water and prevent runoff and ponding. Key aspects of the program that will help prevent public health impacts are as follows:

- Daily inspection of golf course conditions and irrigations components, with adjustment of program if needed.
- Daily inspection and repair of irrigation components to insure proper operation.
- Irrigation at night
- Cycles of irrigation generally spaced apart to allow sufficient time for soaking and to prevent runoff
- Irrigation schedules modified in accordance with seasons and weather patterns
- Irrigation on an as-needed basis during winter (no irrigation applied after a storm until conditions warrant)

3. Mitigation Measures

To meet the California State Water Resources Control Board's requirements established in Resolution No. 89-36, a ground-water quality monitoring program shall be implemented to provide information about ground-water conditions in the Salt Creek area and any potential effects on the remainder of the Otay HSU.

No mitigation measures are necessary regarding public health provided all state regulatory requirements are met and the proposed irrigation program is followed.

4. Analysis of Significance

Using reclaimed water for irrigation of the EastLake Golf Course is not expected to significantly impact ground-water quality in any portion of the Otay HSU. A ground-water quality monitoring program must be implemented to conform to State Water Resources Control Board requirements.

Potential impacts to public health will be limited to below a level of significance through conformance to state regulatory requirements established by the San Diego Regional Water Quality Control Board, the State Water Resources Control Board, and other appropriate agencies. Proposed operation practices in the EastLake Golf Course irrigation program will further protect public health by minimizing public contact, runoff, and ponding.

5. Mitigation Monitoring

Conformance to state regulatory requirements for ground-water quality and public health will be monitored by the San Diego Regional Water Quality Control Board as part of their enforcement of the waste discharge permit for EastLake Greens.

III. REFERENCES CITED

California Administrative Code, Title 23 Waters, Chapter 3, Subchapter 16, Sections 2633, 2634, Underground Tank Regulations.

California Department of Food & Agriculture. Series of handouts from Worker Health and Safety Branch.

1. Summary of Worker Safety Regulations
2. Pesticide Safety Training
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IV. INDIVIDUALS AND ORGANIZATIONS CONTACTED

City of Chula Vista

Maryann Miller

EastLake Development Company

Curt Smith

V. REPORT PREPARERS

This addendum was prepared by ERC Environmental and Energy Services, Co
ERCE professional staff contributing to the report are listed below:

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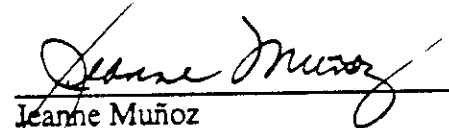
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Guy Magliato, B.A. Environmental Studies

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Paul Stamm, M.E. Electrical Engineering

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.


Jeanne Muñoz
Project Manager

ADDENDUM TO ENVIRONMENTAL IMPACT REPORT EIR-86-04
EASTLAKE GREENS SPA PLAN/TRAILS PRE-ZONE AND ANNEXATION
FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT
EASTLAKE VILLAGE CENTER SOUTH

I. PROJECT NAME: EastLake Village Center South

PROJECT LOCATION: Southwest corner of Telegraph Canyon Road
and Eastlake Parkway

PROJECT APPLICANT: Topmark
12520 High Bluff Drive, #165
San Diego, CA 92130

PROJECT AGENT: James Leary Architecture and Planning
9845 Erma Road, Suite 205A
San Diego, CA 92131

CASE NO: IS-92-21

RELATED CASE(S) IS-92-21: DRC-92-19 AND TPM-92-02

II. BACKGROUND

The environmental review procedures of the City of Chula Vista allow the Environmental Review Coordinator (ERC) to prepare an addendum to a Negative Declaration or Environmental Impact Report, if one of the following conditions is present:

1. The minor changes in the project design which have occurred since completion of the Final EIR or Negative Declaration have not created any new significant environmental impacts not previously addressed in the Final EIR or Negative Declaration;
2. Additional or refined environmental data available since completion of the Final EIR does not indicate any new significant environmental impacts not previously addressed in the Final EIR or Negative Declaration; and
3. Additional or refined information available since completion of the Final EIR or Negative Declaration regarding the potential environmental impact of the project, or regarding the measures or alternatives available to mitigate potential environmental effects of the project, does not show that the project will have one or more significant impacts which were not previously addressed in the Final EIR or Negative Declaration.

This addendum has been prepared in order to provide additional information and analysis concerning the impacts of the proposed project. As a result of this analysis, the basic conclusions of the Environmental Impact Report have not changed. Noise and visual quality impacts are deemed to be

less than significant for the proposed project. The cumulative effects of traffic impacts will have an adverse effect on circulation.

Therefore, in accordance with Section 15164 of the CEQA Guidelines, the City has prepared the following addendum to the Environmental Impact Report for the EastLake Greens SPA Plan and EastLake Trails Pre-zone and Annexation Final Supplemental Environmental Impact Report, EIR-86-04 (ERCE, 1989).

III. IDENTIFICATION OF ENVIRONMENTAL EFFECTS

Land Use - There is no change proposed to this project for the retail commercial land use. The center is to include two, possibly three, anchors and anywhere from 15 to 25 other users, depending on the approved scenario. Both related projects (DRC-92-19 and TPM-92-02) implement the provisions of the EastLake SPA Plan and mitigation measures of EIR-86-04 so far as land use is concerned.

Transportation and Circulation - At present, Telegraph Canyon Road operates at a level of service (LOS) "A" with 9,630 ADT, while Eastlake Parkway operates at a LOS "A" with 2,540 ADT. Once constructed and fully operational, the project will generate approximately 17,560 ADT on Telegraph Canyon Road and 7,840 ADT on Eastlake Parkway for a project total of 25,400 ADT. The LOS will remain unchanged at "A" for both of these streets. However, even if this project remains unchanged and is constructed as planned, other changes in the project vicinity may result in a cumulative effect on Telegraph Canyon Road resulting in a LOS "F" or worse.

Primary access roads are adequate to serve the project. The applicant proposes to widen and lengthen the east-bound right turn lane along the project frontage on Telegraph Canyon Road. Median improvements and modifications are also necessary.

Services/Utilities - A 15" PVC sewer line is located in Telegraph Canyon Road and is capable of handling the solid and liquid waste that will be generated by the project. However, the applicant will have to participate in the Telegraph Canyon Basin Financing Plan to mitigate downstream impacts.

Visual Resources - The EastLake Village Center South site, as a viewshed, is not significant as the project is located in the lower elevations of the overall EastLake SPA I site. The areas to the north, east and south have been developed or

graded, while the area to the west and northwest, although vacant at present, are part of the SR 125 right-of-way. This project will not create visual impacts to surrounding land uses since it will be required to conform to the Planned Community District Regulations for the EastLake Community.

Geology/Soils - Detailed preliminary geotechnical investigations of the EastLake Greens project was conducted by Leighton and Associates, Inc. (1979) and San Diego Soil Engineering, Inc. (1986). These geotechnical reports, which present findings, conclusions and recommendations, are summarized in EIR-86-04 and are on file with the City of Chula Vista Planning Department. The project is required to comply with the recommendations set forth in these reports, and additional mitigation measures related to geology/soils are not needed.

Hydrology/Water Quality - The project is not within a flood plain. A 20' wide drainage easement is located along the northern frontage approximately midway between the western most and central entrances which contain a 42" RCP leading to a 108" RCP in Telegraph Canyon Road. This will allow surface flow in a northwesterly direction to the inlet and then to Telegraph Canyon Road. This is considered adequate for the project.

Paleontological Resources - As a result of Mitigation Measure 4.7.3 on Page 4-75 of EIR-86-04, a qualified paleontologist was on site during mass grading of this project site. Additional grading of the site will consist of fine grading and will be minimal. Therefore, no further mitigation will be required.

Air Quality - When analyzed individually, this project will not have a significant impact on the attainment of local air quality goals. However, the cumulative effect will be significant, especially in view of the LOS "F" that may result along Telegraph Canyon Road at buildout of the EastLake area. Implementation of the mitigation measures identified in Section 4.8.3 of EIR-86-04 and as listed in this Addendum should be completed as early in the process as possible.

Biological Resources - Mitigation Measure 4.9.3 on Page 4-91 of EIR-86-04 recommends that upon development of the EastLake Trails area, the park designation within the Salt Creek drainage be left in its native habitat and further enhanced to provide high-quality riparian habitat. This project is a

precursor to the development of EastLake Trails and requires no additional parks and recreation mitigation measures.

Socioeconomic Factors - This project will result in population growth that is expected for the City of Chula Vista. No significant housing or employment impacts are expected to occur as a result of this project.

Fiscal Analysis - Based on the fiscal analysis prepared by Public Affairs Consultants, EastLake Greens is estimated to provide net revenues which will result in beneficial fiscal impacts to the City of Chula Vista. No significant adverse impacts are expected as a result of this project.

Noise - There are no traffic-related or other noise impacts that would be significant enough to justify a noise analysis for this individual project.

Summary of Threshold/Standards Policy - With the exception of the cumulative impacts to transportation/circulation and air quality, this project will not adversely impact the threshold/standards established for EastLake Greens and as discussed in EIR-86-04.

IV. MITIGATION MEASURES

The proposed project shall comply with the traffic mitigation measures set forth in EIR-86-04, as follows:

1. Improve Telegraph Canyon Road between State Route 125 and EastLake Greens/Trails boundary to six lane prime arterial standards.
2. Construct Hunte Parkway and EastLake Parkway as major roads between Telegraph Canyon Road and Orange Avenue.
3. Construct a southbound SR 125 to eastbound Telegraph Canyon Road loop ramp at the SR 125/Telegraph Canyon Road intersection, or extend SR 125 south to East Palomar Street (which would connect to the EastLake SPA II street system).

In addition, the following traffic mitigation measure should be added for the proposed project:

4. Construct a bus stop, including a shelter, to the satisfaction of Chula Vista Transit and the Transportation Engineer along the Telegraph Canyon Road

frontage east of the main intersection between SR 125 and Eastlake Parkway on Telegraph Canyon Road. This shall be included as a condition of approval for TPM-92-02 in order to implement the Transit Planning Principles found in the EastLake SPA I Plan under Section 3.11 on page III-8.

Principles 1 and 4 of the EastLake SPA I Plan justify this action. These state:

1. Where there are numerous major pedestrian generators, access to stops for transit vehicles moving in both directions would be facilitated by locating transit stops near striped intersections.
4. Transit vehicle conflicts with automobile traffic can be mitigated by locating bus turnouts at the far side of intersections in order to permit right-turning vehicles to continue movement.

This will be refined through the processing of DRC-91-19 and TPM-92-02.

V. CONCLUSION

EastLake Village Center South will have a cumulative effect on traffic on Telegraph Canyon Road and Eastlake Parkway as well as the attainment of local air quality goals. With the implementation of the mitigation measures identified in this addendum, the traffic and air quality impacts will be reduced below significance. This project will have no other significant impacts, direct or cumulative, to the environment not already identified in EIR 86-04.

Maryann Miller
MARYANN MILLER
ENVIRONMENTAL REVIEW COORDINATOR

4.1.92
DATE

REFERENCES: General Plan, City of Chula Vista
Title 19, Chula Vista Municipal Code
City of Chula Vista Environmental Review Procedures
EIR-86-04 -EastLake Greens SPA Plan/Trails Pre-zone
and Annexation Final Supplemental Environmental
Impact Report (ERCE, June, 1989)
EastLake SPA I Plan

EASTLAKE GREENS
EIR-86-4

CANDIDATE CEQA FINDINGS

IN ACCORDANCE WITH SECTION 21081
OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT
AND SECTION 15091 OF TITLE 14
OF THE CALIFORNIA ADMINISTRATION CODE

JUNE 1989

I. INTRODUCTION

Section 21081 of the California Environmental Quality Act (CEQA) requires that no project shall be approved by a public agency when significant environmental effects have been identified, unless one of the following findings is made and supported by substantial evidence in the record:

- 1) Changes or alterations have been required in or incorporated into the project which avoid or substantially lessen the significant environmental effect as identified in the Final Environmental Impact Report (EIR).
- 2) Changes or alterations are the responsibility of another public agency and not the agency making the finding.
- 3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

The following findings are made relative to the conclusions of of the Final Supplemental EIR for the proposed EastLake Greens Sectional Planning Area (SPA) Plan and EastLake Trails Pre-zone and Annexation (SCH #86052803) and all documents, maps, and illustrations listed in Section VI of these findings. The project's discretionary actions include the following:

- 1) Pre-zoning and annexation from the County of San Diego to the City of Chula Vista, consistent with the adopted Sphere of Influence of the City
- 2) Incorporation of the annexed land into the EastLake I Planned Community District, increasing the District from 1267.9 acres to 2104.2 acres; this action includes the approval of amendments to the EastLake I General Development Plan and the EastLake Policy Plan
- 3) Amendments to the City of Chula Vista's Circulation Element
- 4) Adoption of the EastLake Greens Public Facilities and Financing Plan
- 5) Adoption of the EastLake Greens Sectional Planning Area (SPA) Plan
- 6) Approval of the EastLake Greens Tentative Tract Map
- 7) Adoption of the EastLake Greens Design Guidelines

Implementation of the project as proposed would result in a mixture of residential, commercial, circulation, recreational, educational, and open space land uses. The EastLake Greens project consists of 3,609 dwelling units on 830.5 acres and EastLake Trails consists of 1,206 dwelling units on 392.8 acres. The development concept includes a golf-oriented residential community and a corridor of commercial, public, and quasi-public uses between the SR-125 alignment and the EastLake Parkway. This area is an extension of the Village Center within EastLake I and would include a high school, a community park, an area for churches, day care centers, health centers, and other uses.

The following findings have been prepared pursuant to Sections 15088 and 15089 of Title 14 of the California Administration Code and Section 21081 of the California Resources Code.

II. CITY OF CHULA VISTA FINDINGS

- 1) The Planning Commission, having reviewed and considered the information contained in the Final EIR for the EastLake Greens Sectional Planning Area (SPA) Plan and EastLake Trails Pre-zone and Annexation and the record, finds that changes have been incorporated into the project which mitigate, avoid, or reduce the level of identified impacts to insignificance or to levels acceptable to the City, by measures identified in the Final Supplemental EIR.
- 2) The Planning Commission, having reviewed and considered the information contained in the Final Supplemental EIR and the record, finds that none of the significant environmental effects anticipated as a result of the proposed project are within the responsibility of another public agency except for air quality and water supply and water quality.
- 3) The Planning Commission, having reviewed and considered the information contained in the Final Supplemental EIR and the record, finds that no specific economic, social, or other considerations make infeasible the mitigation measures identified in the EIR.
- 4) The Planning Commission acknowledges that these Recommended CEQA Findings are advisory and do not bind the City Council from adopting findings to the contrary if they are supported by substantial evidence in the record.

The City of Chula Vista's Threshold/Standards, adopted November 17, 1987, were developed to assure that the "quality of life" enjoyed by the City's residents is maintained while growth occurs. That quality of life is also important to those who wish to develop within the City. Implementation of the Threshold/Standards program will assure that significant, adverse impacts are avoided or reduced through sound planning and that public services and the quality of the environment will be preserved and enhanced. Based on these threshold/standards, changes have been incorporated into the project to mitigate or avoid environmental effects. The 11 issues addressed in the Threshold/Standards are discussed in sections III and IV below.

III. SIGNIFICANT UNMITIGABLE IMPACTS

1) Air Quality

Impact

It is the responsibility of the San Diego Air Pollution Control Board (APCD) to ensure that state and national air quality standards are achieved. APCD's current Air Quality Management Plan (APCD 1986) is based on the 1982 State Implementation Plan, which documents the necessary overall strategy and individual tactics by which the San Diego air basin can meet its attainment goal. In the San Diego area, a project is considered to have a significant, cumulative air quality impact if the project has not been included in the SANDAG Series V and VI growth forecasts. These forecasts are

the basis for the air quality attainment strategies contained in the 1982 State Implementation Plan.

The entire San Diego air basin is not in attainment for state and federal standards for ozone, and the western two-thirds of the basin is designated as a non-attainment area for carbon monoxide (even though the region has been consistent with carbon monoxide standards for the past several years) and suspended particulate matter. The San Diego region has attained standards for sulfur dioxide, nitrogen dioxide, and lead. The City of Chula Vista has recognized that air quality is a regional issue that cannot be addressed effectively by the City, and the City therefore implements the tactics established by the Regional AQMP as stated in the Threshold/Standards.

The EastLake Greens/Trails project will result in long-term emissions of air pollutants from both stationary and mobile sources. Stationary source pollutant emissions include those generated by the consumption of natural gas and electricity and by the burning of wood in residential fireplaces. Vehicle travel associated with the project would generate mobile source emissions, including carbon monoxide, nitrogen oxides, and hydrocarbons. The project would generate approximately 236 tons per year of hydrocarbons, an important precursor to photochemical smog.

Mitigation

Four basic tactics for the mitigation of air quality effects are presented in San Diego's AQMP (APCD 1986): traffic flow improvements, ride-sharing, bicycling, and transit. The project, as proposed, incorporates traffic flow improvements, bicycling, and transit. In addition, the project applicant will contribute to the EastLake I transit center and to a 120-space parking facility to encourage car-pooling and public transit use in the area. All intersections affected by the project would be maintained at level of service C (the City's threshold standard) or better, and the project provides both bicycle and transit routes and stops throughout the development. The project also reduces the potential for air quality impacts through the mixed-use land use concept designed to reduce vehicle trips.

As a condition of approval, the applicant shall implement these measures concurrently with development.

The City, per the City's adopted Threshold/Standards, shall provide the APCD with a 12 to 15 month development forecast and request an evaluation of its impact on current and future air quality management programs.

Finding

The project, as proposed, was not included in the SANDAG Series V and VI growth forecasts, and thus represents growth that was not considered when formulating the air quality attainment plans for San Diego County. The proposed project is currently a non-conforming use and therefore is considered to have significant cumulative air quality effects even after the implementation of mitigation measures.

Upon revision of the AQMP, the EastLake Greens/Trails project would be incorporated into the SANDAG Series VII growth forecasts. The revised implementation strategies would accommodate the additional emissions from the project.

IV. SIGNIFICANT, MITIGABLE IMPACTS

1) Transportation/Circulation

Impact

EastLake Greens/Trails will add a significant number of average daily trips (ADT) to the internal and external street system. In the short-term, the project will contribute a substantial portion (more than 30 percent) of the ADT to Telegraph Canyon Road east of Otay Lakes Road to the EastLake boundary; to SR-125 north to SR-54; and to Otay Lakes Road between Telegraph Canyon Road and East H Street. The project will contribute less than 10 percent of the ADT to all other affected street segments, except for Telegraph Canyon Road between Medical Center Drive and Otay Lakes Road (19 percent). Two affected street segments already operate at less than Level of Service (LOS) C (the City's threshold level): Bonita Road between I-805 and Plaza Bonita Drive (LOS F) and Bonita Road between Willow Road and Otay Lakes Road (LOS D). The project will contribute 1 percent of the ADT for these street segments.

Mitigation

Mitigation measures have been incorporated into the project to mitigate the potential traffic impacts (see the EastLake Public Facilities Financing Plan for details, phasing, and financing methods). As a condition of approval of the project, the applicant shall agree to the following :

- a) Improve Telegraph Canyon Road between SR-125 and the EastLake Greens/Trails boundary to 6-lane prime arterial standards.
- b) Construct Hunte Parkway and EastLake Parkway as major Roads between Telegraph Canyon Road and Orange Avenue.
- c) Construct a loop ramp off southbound SR-125 to eastbound Telegraph Canyon Road or extend SR-125 to East Palomar Street (which would connect to the EastLake Greens/Trails street system).
- d) Participate in the East Chula Vista Transportation Phasing Plan on a fair-share basis with other area developers.
- e) Internal to the project, construct the internal loop street as a 2-lane collector road with adequate width to provide for 2-travel lanes and a continuous left-turn lane.
- f) Install traffic signals at locations and at a time determined by the City traffic engineer.
- g) Coordinate proposed phased development with the City to ensure compatibility with the expansion of municipal transit routes and facilities (as outlined in the Circulation Element of the SPA Plan).
- h) Develop alternative transit, including pedestrian and bicycle trails, within the project site (as outlined in the SPA Plan). Bikeways shall be designed and constructed in accordance with Caltrans' criteria, to comply with state standards.

constructed in accordance with Caltrans' criteria. to comply with state standards.

The timing of the implementation of these measures shall be determined by the "quality of life" Threshold/Standards Policy adopted by the City November 17, 1987 and by the the East Chula Vista Transportation Phasing Plan (1989). Monitoring shall be required as part of the determination of timing.

Findings

With the implementation of the above specified mitigation measures, no significant environmental impact will occur.

2) Police Protection

Impact

Increased calls associated with project implementation would place additional demands on the single patrol car serving Beat 32. Current response times are slower than what is considered optimal; project implementation would place additional demands on an undermanned police beat and would result in an adverse impact.

Mitigation

The provision of additional police personnel that is underway for the Police Department in Chula Vista (J. Kohls, personal communication) will alleviate future development impacts to service availability. Revenues generated by this and similar projects could be used to upgrade the staffing and facilities (including the planned police staff room within EastLake I) of the Police Department.

If the City's threshold standards are exceeded, a moratorium on the acceptance of tentative maps applications may be adopted by the Growth Management Oversight Committee (GMOC).

Finding

With the implementation of the above specified mitigation measures, no significant environmental impact will occur.

3) Fire Protection

Impact

Implementation of the project will result in additional demands for fire protection, including expansion of Fire Department facilities. Water pressure on the EastLake Greens site is adequate for fire protection. The Fire Department may be required to use pressure reduction valves or pressure reducers to provide safe water pressures and water flows.

Upon development of the SPA Plan for EastLake Trails, any water pressure and water facility concerns on that property would be resolved between the Otay water District and the Chula Vista Fire Department.

Mitigation

EastLake Development Company shall provide funds for either new equipment and personnel. Impact fees will be assessed for a fair share of the costs for the fire station proposed to be constructed in the vicinity of East H Street and SR-125. (Draft Fire Station Master Plan 1989).

If the City's threshold standards are exceeded, a moratorium on the acceptance of tentative maps applications may be adopted by the Growth Management Oversight Committee (GMOC).

Finding

With the implementation of the above specified mitigation measures, no significant environmental impact will occur.

4) Emergency Medical Services

Impact

Following development, additional personnel and facilities may be needed to respond in a timely manner to medical emergencies in the EastLake Greens/Trails area.

Mitigation

Additional personnel and facilities may need to be added by the private ambulance company serving eastern Chula Vista.

If the City's threshold standards are exceeded, a moratorium on the acceptance of tentative maps applications may be adopted by the Growth Management Oversight Committee (GMOC).

Finding

With the implementation of the above specified mitigation measures, no significant environmental impact will occur.

5) Schools

Impact

New students will be generated for both the elementary and secondary school systems.

Mitigation

The project applicant has entered into an agreement with the Sweetwater Union High School and the Chula Vista Elementary School districts, ensuring that the Mello-Roos Community Facilities Districts are in full satisfaction of any school requirements and can fully mitigate the project's impacts upon the school districts. One elementary and one high school will be constructed within the project area; school construction is phased concurrently with residential development.

Finding

With the implementation of the above specified mitigation measures, no significant environmental impact will occur.

6) Library Services

Impact

Development of the proposed project will result in an estimated 9,636 residents and in increased demand on library facilities.

Mitigation

The City of Chula Vista threshold standard requirement for library facilities is 500 square feet of fully staffed and equipped library space per 1,000 population. The Planned Community regulations for EastLake I require that a 1-acre library site near the Village Center be reserved with the stipulation that the library site must be developed within 10 years after dedication (WESTBC 1984). Plans for the construction of the new facility shall follow concurrently with residential development. Capital costs shall be provided either by EastLake Development Company or the property itself through the use of public debt mechanism tied to the property.

Finding

With the implementation of the above specified mitigation measures, no significant environmental impact will occur.

7) Parks and Recreation

Impact

Based on the City's park standards and threshold requirements, the projected EastLake Greens population of 9,636 will require approximately 30.72 acres of parkland onsite.

Mitigation

The applicant plans to provide more than 40 acres of neighborhood and community parks within the EastLake Greens/Trails site. The parks shall be a condition of approval for the project. An extensive pedestrian and bicycle trail system will be constructed. An 18-hole golf course and country club is a prominent feature of the project.

Finding

With the implementation of the above specified mitigation measures, the requirements of 3 acres of park for every 1,000 residents will be met, and no significant environmental impact will occur.

8) Water Availability

Impact

Based on water consumption rates and land use allocations for the proposed project, approximately 1.77 million gallons of water will be required each day. According to the Otay Water District (OWD), the provision of domestic water to the EastLake Greens/Trails projects can be provided through existing infrastructure until the 980' Zone pump station's capacity is reached. Additional facilities would then be required.

Mitigation

An agreement between EastLake Development Company and two other major developers has been approved by the OWD Board of directors. This agreement will provide financing for the construction of a below-ground 50 MG reservoir that will provide terminal storage for a minimum of five average days water supply. EastLake Development has offered a site for this facility.

The applicant has proposed to utilize 1.3 million gallons a day of reclaimed water (to be supplied by OWD) for irrigation in order to reduce onsite domestic water consumption. In addition to the use of reclaimed water, other water conservation measures beyond those required by state law are presented in the SPA Plan (maintenance of minimum water pressure levels within residential units, incorporation of drought-tolerant and naturalized landscaping, construction of attached housing designed with common landscaping to reduce irrigation requirements).

Adequate water storage and distribution facilities shall be constructed in conjunction with the project development.

Finding

Provided water is available from OWD, with the implementation of the above specified mitigation measures, no significant environmental impact will occur.

9) Sewer

Impact

EastLake Greens will generate an average sewer flow of 1.16 million gallons per day. Onsite facilities have been designed to accommodate an estimated peak flow of 2.15 million gallons per day. There is temporary capacity within the Telegraph Canyon trunk to serve EastLake Greens during the initial phases of the project. Combined with similar projects within the vicinity, however, a potentially significant impact may occur to the City's sewer infrastructure.

At full buildout of EastLake Trails, an estimated 0.413 million gallons per day of sewage would be generated; this is not considered to be a significant impact to the system in and of itself. It may, however, affect the ability of the existing facilities to accept additional flow both in the interim and ultimately. The impact on sewer services cannot be determined at this time.

Mitigation

Cumulative impacts to the City's sewer system will be mitigated by the development of additional facilities to be funded by the EastLake Greens Development Company and other developers. EastLake Development Company is currently negotiating an agreement with the City of Chula Vista. Through this agreement, monitoring will be conducted at EastLake Development's expense to ensure that the capacity of the existing 15-inch sewer trunk line in Telegraph Canyon Road is not exceeded prior to the construction of alternative means to transport such sewage.

Finding

With the implementation of the above specified mitigation measures, no significant environmental impacts will occur.

10) Hydrology/Water Quality

Impact

Grading and infilling of onsite drainages and the construction of impervious surfaces would increase the amount of surface runoff, a potentially significant impact. Increased runoff could generate high erosional potential from soil materials, creating deep erosion gullies, unstable slopes, build-ups of silt deposits within drainages, at the toe of slopes, and in storm drains. Increase of runoff would also magnify the potential for flooding problems downstream of the site. Potential impacts to water quality are associated with runoff contamination.

Potential impacts to water quality are associated with the use of reclaimed water for irrigation.

Mitigation

Implementation of the proposed EastLake Greens storm drain system, as approved by the City of Chula Vista Public Works Department, would mitigate potential adverse hydrologic/water quality effects.

State and local regulations regulate the use of reclaimed water; adherence to the regulations would ensure that no adverse impacts would result from such use.

Finding

With the inclusion of the above specified mitigation measures, no adverse environmental impact will occur.

V. OTHER ISSUES

The following issues are not included in the City's Threshold/Standards.

1) Visual Resources

Impact

Landform Alteration. The proposed EastLake Greens/Trails development would change the appearance of the project site as the pastoral character of the existing landscape would be replaced with urban development. Landform alteration would result from significant grading throughout the EastLake Greens site, e.g., cut slopes of up to 70 feet in height are proposed and the topographic profile of the site as a whole would be measurably altered. Specifically, several hills would be leveled and several small interior drainages filled to facilitate construction in higher density building areas.

Specific impacts from landform alteration related to buildout of the proposed EastLake Trails site cannot be identified because grading and development plans have not been submitted.

Views. Development of the EastLake Greens project site is not expected to result in adverse visual impacts to onsite views, but will create both short- and long-term visual impacts for surrounding areas. The existing and proposed above-ground water tanks would be partially concealed by siting and landscaping. The SDG&E transmission line extends over several thousand feet of the EastLake Greens site and would be visible to several proposed residential areas.

No potentially significant visual quality impacts are anticipated with buildout of EastLake Trails.

Scenic Resources. The designated and potential scenic roadways in the project vicinity would not be adversely affected by the proposed project. Development of the project would increase local night-sky illumination levels, but because the site is a considerable distance from the Mt. Palomar and Mt. Laguna observatories such illumination should not adversely affect activities at those observatories. This is considered an insignificant adverse impact on a project level and a contribution to a significant cumulative effect.

Mitigation

The project has incorporated extensive measures to avoid potential visual impacts. These measures include the designation of 214.3 acres of open space and recreational use, comprehensive plans for landscaping, grading, circulation, architectural and site design, lighting, fencing, and signage. Compliance with the guidelines in the EastLake Greens SPA Plan regarding these measures would ensure that significant adverse visual impacts within the EastLake Greens are minimized or eliminated. Possible exceptions include residential views associated with the above-ground water tanks and the SDG&E transmission lines. Recommended mitigation measures for these impacts include additional landscaping for the tanks, and careful siting of residential units to minimize views of the tanks and lines.

Additional environmental review will be required for EastLake Trails.

Finding

No significant visual impacts are expected to occur with complete implementation of the SPA Plan and recommended mitigation measures. While the contribution to night-sky illumination is cumulatively significant, the site, as noted above,

is a considerable distance from the Mt. Palomar and Mt. Laguna observatories and such illumination should not adversely affect activities at those observatories.

2) Geology/Soils

Impact

No major geologic constraints to development are known; 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. Potentially significant concerns include compressible alluvial and colluvial soils, expansive clay beds, and the generation of oversized material from cemented bedrock zones.

Mitigation

Implementation of sound construction practices, in conformance with existing Building Code standards will mitigate any potential effects of compressible alluvial and colluvial soils. Disposal of oversized rocks generated from cemented bedrock zones should comply with specifications identified by a geotechnical consultant.

Finding

With the inclusion of the above specified mitigation measures, no adverse environmental impact will occur.

3) Biological Resources

Impact

No significant impacts to existing habitats within EastLake Greens are anticipated. Impacts to biological resources related to the Salt Creek drainage within EastLake Trails cannot be assessed until the development of the EastLake Trails SPA Plan and Tentative Map.

Mitigation

No mitigation measures are required for EastLake Greens. Mitigation measures if any, will be recommended for EastLake Trails following the assessment of the effects of the EastLake Trails SPA Plan and Tentative Map, i.e. as part of subsequent environmental review.

Finding

No significant impacts to biological resources are anticipated as a result of the planned development of EastLake Greens. Potential impacts to biological resources of the Salt Creek drainage will be evaluated as part of subsequent environmental review.

4) Paleontological Resources

Impact

There is potential for adverse impacts to significant paleontological resources during construction of the EastLake Greens/Trails project. The significance of these impacts cannot be determined.

Mitigation

A qualified paleontologist shall monitor grading activities during construction of the project.

Finding

With the inclusion of the above specified mitigation measures, no adverse environmental impact will occur.

5) NoiseImpact

Potentially significant impacts associated with the EastLake Greens project were calculated using the Federal Highway Administration STAMINA 2.0 Noise Prediction model. In residential areas adjacent to EastLake Parkway, between the northern and southern entry roads and the park proposed adjacent to the high school, noise levels would exceed 65dB(A). Exterior noise levels above 65 dB(A) CNEL are considered incompatible with both residential and parkland areas but compatible with commercial uses. These areas would also experience significant interior noise impacts.

Mitigation

The applicant shall construct walls or berms of a height determined to be effective in reducing noise exposure to acceptable levels onsite. Attenuation of noise levels at the park shall be achieved through raising the pad elevations near the contributing roadways by two feet instead of incorporating a barrier.

Additional noise analysis shall be required for the areas designated as Future Urban and for EastLake Trails once development plans with project details are available.

An interior noise analysis shall be required for any residential areas exposed to exterior noise levels of 60 CNEL or greater.

Finding

With the inclusion of the above specified mitigation measures, no adverse environmental impact will occur.

V. INSIGNIFICANT IMPACTS

In accordance with the evaluation provided in EIR-86-4 and previous documentation, the project would not result in any significant impacts in the issue areas below; these issues have therefore not been discussed above:

- 1) Land Use (4.1)
- 2) Mineral Resources (City of Chula Vista EIR 84-1)
- 3) Archaeological/ Historical Resources (City of Chula Vista EIR 84-1)

- 5) Energy Supplies and Conservation (4.3.8)
- 6) Solid Waste Disposal (4.3.9)
- 6) Socioeconomic Factors (4.11)

VI. THE RECORD

For the purposes of CEQA and these findings, the record of the Planning Commission and City Council relating to these actions include the following:

- 1) Air Pollution Control District (APCD), 1986, Progress in Air Pollution Control During 1985, Draft, San Diego, June.
- 2) Atwood, J. 1980. The United States distribution of the California Black-tailed Gnatcatcher. Western Birds, 11:65-78.
- 3) California Air Resources Board (ARB), 1982, 1983, 1984, 1985, Air Quality Data.
- 4) California Department of Fish and Game. 1980. At the Crossroads. A report on California's endangered and rare fish and wildlife. The Resources Agency.
- 5) California Department of Fish and Game. 1985. Designated endangered or rare plants. The Resources Agency, June 19.
- 6) Cinti and Associates, 1986, Draft EastLake Greens Sectional Planning Area (SPA) Plan, prepared for EastLake Development Company, September 11.
- 7) City of Chula Vista, 1974, Scenic Highway Element of the Chula Vista General Plan.
- 8) City of Chula Vista, 1982, Chula Vista General Plan, EastLake Policy Plan, City Council Resolution No. 10996, September 7.
- 9) City of Chula Vista, 1982, Housing Element.
- 10) City of Chula Vista, 1987, Policy: Threshold/Standards and Growth Management Oversight Committee (November).
- 11) City of Chula Vista, 1989, Draft Fire Station Master Plan (March).
- 12) City of Los Angeles, 1983, Energy Action Plan.
- 13) County of San Diego, 1975 (revised 1983), Scenic Highway Element of the San Diego County General Plan.
- 14) County of San Diego, 1984, San Diego County General Plan - 1995, Part 11, Regional Land Use Element and Map, August 22.
- 15) County of San Diego, 1984, San Diego County General Plan - 1995, Part XXIII, Otay Subregional Plan, August 22.
- 16) County of San Diego, 1985, The Zoning Ordinance, San Diego County, November.

- 17) Evertt, W.T., 1979. Threatened, Declining and Sensitive Bird Species in San Diego County San Diego Audubon Society, sketches, June.
- 18) Federal Home Loan Bank of San Francisco, 1986, Housing Vacancy Survey, San Diego MSA, Survey date October 1985, June.
- 19) Goldwasser, Sharon, 1978. Distribution, Reproductive Success and Impacts of Nest Parasitism by Brown-headed Cowbirds on Least Bell's Vireo, California Department of Fish and Game, The Resources Agency, July.
- 20) Grinnell, J. and A.H. Miller. 1944, The distribution of the birds of California. Pacific Coast Avifauna 27.
- 21) HBW Associates Inc., 1986, Master Plan for the Chula Vista Public Library Draft, December.
- 22) Holland, R.F., 1986. Preliminary description of the terrestrial natural communities of California. State of California, The Resources Agency.
- 23) Leighton and Associates, 1979, Geotechnical Reconnaissance of an Area Approximately Seven Miles East of Chula Vista, San Diego County, California and Immediately West of Otay Reservoirs, Project No. 179398-1.
- 24) P&D Technologies, 1989. Draft EIR City of Chula Vista General Plan Update, March.
- 25) Remsen, V. 1978. The species of special concern list: and annotated list of declining or vulnerable birds in California. Western Field Ornithologist, Museum of Vertebrate Zoology, University of California, Berkeley.
- 26) Salata, L.R. 1984. Status of the Least Bell's Vireo on Camp Pendleton, California: Report on Research done in 1984. Unpublished. Report., U.S. Fish and Wildlife Service, Laguna Niguel, California.
- 27) San Diego Association of Governments (SANDAG), 1984, A Housing Study for the City of Chula Vista.
- 28) SANDAG, 1985, Final Series 6 Regional Growth Forecasts, 1980-2000.
- 29) SANDAG, 1986, Regional Economic Development Guide and Extract (EDGE) Volumes 1 and 11, August.
- 30) SANDAG, 1987, Draft Series 7 Regional Growth Forecasts.
- 31) San Diego Soils Engineering, Inc., 1986, Preliminary Geotechnical Investigation, EastLake Greens, Chula Vista, California, prepared for EastLake Development Company, November 17.
- 32) Smith, J.P., Jr. and R. U. York 1984. Inventory of rare and endangered vascular plants of California. California Native Plant Society, special publication no. 1 (3rd Edition)

- 33) University of California, Agricultural Extension Service, 1970, Climate of San Diego County; Agricultural Relationship, November.
- 34) U.S. Department of Agriculture, Soil Conservation Service, 1973, Soil Survey San Diego Area, California, December.
- 35) U.S. Environmental Protection Agency, Compilation of Air Pollution Emission Factors, AP-42, Supplement 7.
- 36) U.S. Fish and Wildlife Service. 1980. Federal Register. 45(242):82480-82569.
- 37) U.S. Fish and Wildlife Service: 1985a. Endangered and threatened wildlife and plants: Review of plant taxa for listing as endangered or threatened species; Notice of review; Federal Register, 50(188):39526-39527, September 27.
- 38) U.S. Fish and Wildlife Service. 1986. Endangered and threatened wildlife and plants; Least Bell's vireo; Determination of endangered status, and reopening of comment period in the proposed critical habitat designation. Federal Register 51(85):16474-16483.
- 39) WESTEC Services, Inc. 1982, EastLake Final Environmental Impact Report, prepared for the City of Chula Vista, February.
- 40) WESTEC Services, Inc., 1985, EastLake I Sectional Planning Area (SPA) Plan Final Environmental Impact Report, prepared for the City of Chula Vista, January.
- 41) Wilson Engineering, 1989a, Master Plan of Sewerage for Salt Creek I, March.
- 42) Wilson Engineering, 1989b, Overview of Sewer Services for Salt Creek Ranch Project, April.

Also included in the record are the following studies prepared for the EastLake Greens/Trails Planning Program:

- 1) Draft EastLake Greens Sectional Planning Area (SPA) Plan, Cinti & Associates (May 1989).
- 2) Draft EastLake I Planned Community District Regulations, Second Amendment (March 1989).
- 3) City of Chula Vista Public Facilities Financing Plan: EastLake Greens (June 1989).
- 4) Draft East Chula Vista Transportation Phasing Plan (June 1989)
- 5) EastLake Greens Development Agreement (in preparation)
- 5) Residential Design Guidelines: EastLake Greens SPA (May 1989)

Also included as part of the Planning Commission and City Council record are the following:

- 1) Final Supplemental EIR-86-4, EastLake Greens and EastLake Trails (June 1989)

- 2) Documentary and oral evidence presented to the Planning Commission and/or City Council during public hearings on EIR-86-4 and the EastLake Greens/Trails project
- 3) Matters of common knowledge to the Planning Commission and/or City Council, such as
 - a. The City of Chula Vista General Plan (1970)
 - b. The City of Chula Vista Draft General Plan (1989)
 - c. The Zoning Ordinance of the City of Chula Vista as most recently amended
 - d. The Municipal Code of the City of Chula Vista
 - e. All other formally adopted policies and ordinances

PROPOSED STATEMENT OF
OVERRIDING CONSIDERATIONS

WHEREAS, the California Environmental Quality Act requires that the decision maker in any project balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project; and

WHEREAS, the City Planning Commission of the City of Chula Vista desires to recommend such findings to the City Council of the City of Chula Vista to assist in their consideration of the project; and

WHEREAS, the Planning Commission has previously found that one unavoidable significant impact would be experienced should the project be approved, namely an air quality impact due to the failure of the project to be considered earlier in the SANDAG Series V and VI Growth Forecasts;

NOW THEREFORE, the Planning Commissions resolves that the following project features provides benefits to the City and its citizens justifying the approval of the project notwithstanding the air quality impact described in the Environmental Impact Report;

1. The project contains a commitment to public infrastructure of extraordinary size or capacity serving the Eastern Territories through the requirements of the Transportation Phasing Plan, and the Public Facilities Financing Plan wherein the project pledges to build facilities to accommodate its impact and cumulative impacts while preserving levels of public service consistent with the "Quality of Life Threshold" earlier adopted by the City Council

2. The project contains a significant commitment to open space, public and quasi-public land uses including, but not limited to, a one hundred and sixty (160) acre golf course, thirty-six (36) acres of park and recreational facilities, fifty-nine (59) acres for school facilities and seventeen (17) acres of public and quasi-public uses; in the aggregate, thirty two percent (32%) of the total project area.

3. The project helps fulfill the need for church sites in the near future by providing a site within the EastLake Village Center and pledging to develop a church master plan.

4. The project advances Chula Vista's environmental goals by developing water conservation and reclamation programs, mass transit facilities and an extensive trail system.

~~ATTACHMENT "A"~~

MITIGATION MONITORING AND REPORTING PROGRAM

The following monitoring program is designed to insure compliance with the California Environmental Quality Act and insure mitigation measures are implemented. The following identifies how the City of Chula Vista will monitor mitigation measures and report the findings of such monitoring.

MITIGATION MONITORING PROGRAM

The following identifies a step by step process which the City of Chula Vista will utilize to monitor and report on the implementation of mitigation measures.

1. All mitigation measures shall become conditions of a project approval identifying when the condition (mitigation) shall be implemented, i.e., prior to permit issuance, prior to recordation, during project construction, before occupancy, or after occupancy.
2. Project approvals shall be by resolution or Notice of Decision (NOD) identifying all conditions including a special section identifying all mitigation measures as conditions. Said resolution shall be routed to all City departments and affected agencies.
3. Upon application for implementation permits (grading, building, encroachment, utility connections, and the like), the resolution of approval or NOD with the mitigation shall be attached to the construction plans for both in-house (inspector) use and on-site (contractor) plans.
4. Should project implementation permits require monitoring during construction, the mitigation shall be identified on the construction plans for the inspector and contractor.
5. Prior to issuance of any implementation permits, the resolution of approval shall be reviewed to determine if any conditions (mitigation) require implementation. This review shall be by the Planning Department. Staff will insure that such conditions have been complied with prior to the issuance of the permits.
6. Prior to staff signing off on City forms reporting that the permit is completed, the conditions (mitigation) shall be reviewed by staff to insure compliance.
7. Prior to project occupancy or completion being approved by the City all City Departments shall sign off on the occupancy card. Each Department shall insure compliance of the conditions (mitigation) that relate to that Department. The ~~Community Development~~ Department shall insure that the mitigation measures have been met, including those measures that may require other agency input and comment/acceptance prior to signing off on the occupancy card.

Planning

8. Any conditions (mitigation) that require monitoring after project completion shall be the responsibility of the Planning Department. The Department shall require the applicant to post any necessary funds (or other forms of guarantee) with the City. These funds shall be used by the City to retain consultants and or pay for City staff time to monitor and report on the mitigation measure for the required period of time. City related projects that have conditions reflecting mitigation measures will not have to post any deposits. Compliance of the mitigation measures shall be insured by the Planning Department and other agencies, if applicable.

In those instance requiring long term project monitoring, the applicant shall provide the City with a plan for monitoring the mitigation activities at the project site and reporting the monitoring results to the City. Said plan shall identify the reporter as an individual qualified to know whether the particular mitigation measure has been implemented. The monitoring/reporting plan shall conform to the City's mitigation monitoring program and shall be approved by the Planning Department Director prior to the issuance of building permits.

9. All monitoring and reporting documentation shall be maintained in the Primary project file with the Department having the original authority for processing the project, and a copy of the monitoring and reporting documentation shall be transmitted to the agency requiring the mitigation.
10. Although various City departments will be involved with insuring compliance with mitigation measures, the Planning Department will review all mitigation measures prior to granting occupancy to double check compliance.

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ENVIRONMENTAL MITIGATION MONITORING CHECKLIST

EXHIBIT A
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PROJECT NAME: CANNON ROAD REACH I FILE NUMBERS: PCD/GPC.89-2/EIR 87-2
APPROVAL DATE: May 17, 1989 EIR OR CONDITIONAL NEG. DEC.: PC RESO 2853

The following environmental mitigation measures were incorporated into the Conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented, and fulfills the project's monitoring requirements with respect to Assembly Bill 3180 (Public Resources Code Section 21081.6).

Mitigation Measure	Monitoring		Verified Implementation	Remarks
	Type	Dept.		
See Attached				

... (numbered as necessary)

Explanation of Headings

- Project, ongoing, cumulative.
- Monitoring Dept. = Department, or Agency, responsible for monitoring a particular mitigation measure.
- Shown on Plans = When mitigation measure is shown on plans, this column will be initialed and dated.
- Verified Implementation = When mitigation measure has been implemented, this column will be initialed and dated.
- Remarks = Area for describing status of ongoing mitigation measure, or for other information.

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Mitigation Measure	Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
1. Retain consulting biologist during construction.		Planning			
2. Include landscaping plans in construction contract showing all details of required revegetation.		Planning			
3. Restore all areas of native vegetations disturbed by construction.		Planning			
4. Retain consulting biologist to monitor all restored or enhanced areas for a period of 3 years and file annual report.		Planning			
5. Notify and obtain permits from state and federal resource agencies prior to any construction.		Planning			
6. Create willow scrub habitat in vicinity of project to replace that impacted as required by resource agencies.		Planning			
7. Each Spring prior to construction, the riparian woodland shall be surveyed for least Bell's vireo.		Planning			
8. Construction contract shall provide for least Bell's vireo surveys and potential mitigation.		Planning			
9. Bridge plans must specify barriers 2.5 feet high for noise reduction.		Engineering			
10. Plans must have adequate measures for erosion and sedimentation control to satisfaction of City Engineer.		Engineering			

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Mitigation Measure	Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
11. Sewer force main construction must be monitored by consultant biologist. Flagging and snow fences shall be used to separate sensitive areas from construction.		Planning			
12. Where slope permits, agricultural areas shall be restored to arable condition.		Planning			
13. Runoff control plan shall demonstrate no significant increase in peak runoff rate after project.		Engineering			
14. Landscaping shall be maintained for 3 years.		Planning			
15. An archaeologist shall be hired and mitigation as specified in the EIR completed prior to grading on 3 sites listed in EIR.		Planning			
16. The construction contract shall provide for the implementation of the paleontology program in the EIR to be done by a qualified paleontologist during construction.		Planning			