

**EASTLAKE
FINAL
ENVIRONMENTAL IMPACT REPORT
VOLUME 1**

**City of Chula Vista Case Number: EIR 81-03
State Clearinghouse Number: 80121007**

Prepared for:

**City of Chula Vista
Environmental Review Committee
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PREFACE

This three volume document comprises the Final EIR for the General Plan Amendment, rezoning and General Development Plan, and annexation for the Planned Community of EastLake. A Notice of Preparation was circulated in January 1981, and an Environmental Constraints Inventory was prepared for the project site. Subsequently, a Draft EIR was completed for the proposed project and circulated for public review. The Draft EIR text was revised in several areas to address concerns raised during the public review period. The revised EIR text comprises Volume 1 of the Final EIR. Volume 2 contains the comments received on the Draft EIR and the responses to those comments. Volume 3 contains the technical appendices to the EIR, including a supplemental traffic analysis completed during the public review period. Additional information regarding the project, including an Environmental Data Base, White papers, and other technical reports prepared by the applicant, are available for review at the City of Chula Vista Planning Department.

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APPENDICES

The following appendices to the EIR are on file with the City of Chula Vista and are available for public review at the Planning Department.

<u>Letter</u>	<u>Title</u>
A	Biological Survey Report
B	Air Quality Analysis EastLake Planned Community
C	Traffic Impact Study EastLake Planned Community
D	Fiscal Efficiency Analysis EastLake Planned Community

The proposed Planned Community District Regulations, Environmental Data Base and other technical reports are also on file with the Chula Vista Planning Department.

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SECTION I
INTRODUCTION AND SUMMARY

1.1 PURPOSE

This environmental document addresses the 3073-acre Janal Ranch property, located in an unincorporated area of the southern portion of San Diego County, approximately 7.5 miles east of downtown Chula Vista and 7 miles north of the U.S./Mexico border. The property is located in the County's Otay Subregional Planning Area but is also shown on the City of Chula Vista's General Plan Land Use Map. Although the site is generally considered to be within the City's Planning Area, the Local Agency Formation Commission (LAFCO) has not adopted a sphere of influence for Chula Vista.

The applicant is proposing to amend the Land Use and Circulation Elements of the Chula Vista General Plan to designate a mixture of residential, commercial, industrial, public and open space land uses. If the proposed project is approved, other elements of the General Plan would need to be updated where appropriate to maintain consistency. Additional actions included in the project proposal are rezoning of the property to PC (Planned Community) and annexation to the City of Chula Vista from the County of San Diego.

This document is designed to serve as a Draft Master Environmental Impact Report (MEIR) for the proposed General Plan Amendment, rezoning and General Development Plan (GDP) and annexation for the Planned Community of EastLake. The annexation will require approval by LAFCO and the Chula Vista City Council. Approval of the GPA, draft rezoning and GDP are also required from the City Council. The objective of this report is to provide a base of information regarding the resources and constraints of the project site, and to discuss the environmental effects of the proposed actions, thus permitting the City of Chula Vista to complete the Final EIR without additional major research effort. Both the annexation and the proposed land use designation changes are analyzed, in conjunction with the general development plan associated with the rezoning. This document will serve as a master EIR to expedite the environment review of future specific developments within the project area by: 1) providing information the City can use to decide whether certain environmental effects are likely to occur and whether those effects would be significant; 2) providing a central source of information for use in preparing individual EIRs and/or negative declarations; and 3) identifying long-range, areawide and cumulative impacts of individual developments proposed in the project area.

As noted above, this Draft EIR is intended to serve as a Master EIR for the EastLake project. The Administrative Guidelines to CEQA provide in Section 15069.5:

"(a) Where a large capital project will require a number of discretionary approvals from governmental agencies and one of the approvals will occur more than two years before construction will begin,

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a staged EIR may be prepared covering the entire project in a general form. The staged EIR should evaluate the proposal in light of current and contemplated plans and produce an informed estimate of the environmental consequences of the entire project. The aspects of the project before the public agency for approval shall be discussed with a greater degree of specificity.

(b) When a staged EIR has been prepared, a supplement to the EIR shall be prepared when a later approval is required for the project, and the information available at the time of the later approval would permit consideration of additional environmental impacts, mitigation measures, or reasonable alternatives to the project."

As noted in Table 1-1, Sectional Area Plans, Tentative Maps, and Planned Unit Development must themselves be subjected to environmental review with respect to the resources and issues listed in Table 1-1 prior to any approval which may result in a significant effect on the environment. When subsequent environmental documents are prepared with respect to later discretionary approvals, further opportunity to recommend further mitigation measures and project alternatives.

As provided for by the Administrative Guidelines to CEQA in Section 15002(f), where subsequent environmental review demonstrates that the project under consideration and its attendant approvals would cause a substantial adverse change in the environment, the lead agency must respond to such information by one or more of the following actions:

- "(1) Changing a proposed activity;
- "(2) Imposing conditions on the approval of the activity;
- "(3) Adopting plans or ordinances to control a broader class of activities to avoid the problems;
- "(4) Choosing an alternative way of meeting the same need;
- "(5) Disapproving the project, or
- "(6) Finding that changes in, or alterations, the project are not feasible.
- "(7) Finding that the unavoidable, significant environmental damage is acceptable as provided in Section 15089."

Table 1-1

SUMMARY OF FUTURE ENVIRONMENTAL REVIEW FOR EASTLAKE

Issue	General Development Plan	Sectional Area Plan	Tentative Map/ Precise Plan
Land Use	X	X	X
Agricultural Resources	X		
Transportation and Circulation	X	X	
Sewer Services	X	X	
Water Availability	X		
Schools	X	X	
Police Protection	X		
Fire Protection	X	X	
Energy	X	X	(X)
Parks and Recreation	X	X	
Other Utilities and Services	X	X	
Biological Resources	X	X	(X)
Visual Resources	X	X	(X)
Geology	X	X	
Soils	X	X	(X)
Groundwater	X		
Drainage	X	X	
Mineral Resources	X		
Water Quality	X	X	(X)
Air Quality	X		
Socioeconomic Factors	X	X	
Archaeology/History	X	(X)	
Paleontology	X	X	
Noise	X	X	(X)

Key

- X - issue to be addressed
- (X) - issue to potentially be addressed
- blank - issue not to be addressed

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This report is submitted to the City of Chula Vista in accordance with the California Environmental Quality Act and EIR Guidelines, as amended January 1, 1981.

In designing the EastLake Planned Community, the applicant used a planning process which included environmental studies from the initial stages of the project. Subsequent to finalizing the General Development Plan for EastLake, an Environmental Data Base was prepared and submitted to the City of Chula Vista. This data base was used during preparation of the Environmental Constraints Inventory for the project, and, in turn, this EIR. Future planning studies for EastLake will include Sectional Area Plans, site plans and tentative maps. The topics for which environmental review may be necessary as these later plans are submitted are identified on Table 1-1.

1.2 SUMMARY OF FINDINGS

Project Description

The 3073-acre EastLake project site is located in the eastern portion of the Chula Vista Planning Area in an unincorporated portion of San Diego County. Upper and Lower Otay Lakes are adjacent to the eastern project boundary, and Otay Lakes Road traverses the site from west to east. The site's topography is gently rolling hills, and current land use is primarily agriculture (dry-farmed barley).

The existing County land use designations are Intensive Agriculture over the majority of the site, and Very Low Density, non-urban residential uses for the remaining areas. The Chula Vista General Plan also designates the majority of the site for Agriculture and Reserve. The northwestern portion of the site is designated for Medium Density Residential uses.

The EastLake project as proposed would be developed as a Planned Community including a mixture of residential, industrial, commercial, office, community educational and open space land uses. The applicant is requesting a prezone to Planned Community and adoption of a General Development Plan and phasing schedule to guide development of the site. To allow such development, a General Plan Amendment for the Land Use and Circulation Elements of the Chula Vista General Plan would be required. If the GPA and prezone are approved, a request for annexation to Chula Vista would be made to LAFCO.

Environmental Analysis

The environmental impacts of the proposed project are summarized below. More detailed discussions of impacts and mitigation measures for each issue are contained in Section III of this report.

Land Use: The proposed changes in land use designations and ultimate development according to the General Development Plan were identified to have a significant impact on agricultural resources. This is discussed further in the following paragraph. Conflicts with surrounding land uses are not anticipated, except for the area adjacent to Otay Lakes Park. This potential impact can be mitigated through specific site design. Internal land uses would be compatible

and no significant impacts would occur. EastLake development would be a substantial change from City policy regarding land use designations for this area, and would vary from density assumptions used for Series V population projections. As a result of this change in policy, there could be secondary effects on traffic, community services and air quality as discussed below.

Agricultural Resources: The majority of the project site contains soils suitable for agricultural use which, due to location within the coastal climate, would be highly productive given imported water. The loss of the current dry farmed barley production is not considered significant but the loss of resources for the potential production of coastal dependent crops would be a significant adverse impact of project development.

Transportation and Circulation: Traffic generated from development of the proposed project would represent an increase in total area trips of 16 to 18 percent. On a cumulative basis, this traffic would have a significant impact on the regional circulation system. Mitigation of the impact is possible with phased improvements to roadways and intersections constructed in conjunction with need. At the City's discretion, some of these improvements should be the responsibility of the developer, while other property owners and various public agencies would need to construct other links. The major road improvements which will be needed to avoid significant impacts include:

- SR 125 between the project and SR 54 should be constructed as a four-lane prime arterial; eventual widening to six lanes with selected grade separations may be required.
- Otay Lakes Road should be extended south of Telegraph Canyon Road to an intersection with Orange Avenue; Orange Avenue should be extended from that point to the EastLake property.
- Several roads (see Appendix C) presently designated as collectors will have to be reclassified as major arterials, including:
 - Sweetwater Road (SR 54 - Bonita)
 - Bonita Bridge
 - Sweetwater Road (SR 54 - Bonita Bridge)
 - Corral Canyon Road
 - Brandywine Avenue
- Bonita Road between I-805 and the Bonita Bridge will need to be widened to a six-lane divided major arterial.

If project development is phased with needed circulation improvements, potential impacts would be reduced to insignificance. If improvements are not made, a significant adverse traffic impact would result.

Sewer Services: Sewage generation from the EastLake project would be substantially higher than that anticipated under current, lower density General Plan designations. Sewage disposal facilities do not currently exist onsite, and full development of the project would require extensive construction of both on and offsite lines or separate sewage treatment facilities. Such improvements would need to be phased with development to avoid significant impacts.

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First phase construction would have some allotted capacity in the Telegraph Canyon trunk line, and pumping into existing lines over a short-term period is being requested by the applicant. If the extension of sewage lines is the option selected for sewerage of the project site, there is a potential for contributing to growth inducement of adjacent parcels.

Water Availability: Project development would require the construction of water distribution facilities onsite, which would be the responsibility of the developer. The Otay Water District has indicated an ability to supply water to the site. However, the loss of imported water from the Colorado River as a result of Arizona's withdrawal would have regional water supply implications. The project as proposed would represent an incremental impact on limited regional water supplies which could be significant on a cumulative basis. The use of reclaimed water for irrigation of open space and recreation areas as well as conservation measures would reduce the demand for imported water from the community. However, the problem of adequate supply must be solved on a regional scale.

Schools: Students generated by project development would create a need for additional school facilities within the project area. The General Development Plan indicates school sites for 5 elementary, 1 junior and 1 senior high. Based on current generation rate and average school capacities, there may be a need for 2 additional elementary and 1 each junior and senior high schools within the community. The provision of adequate school facilities should be coordinated with the Districts and provided by the developer in conjunction with need to reduce potential impacts to insignificance.

Police Protection: Initial emergency response time to development within EastLake would be below the preferred time. The addition of police staff and equipment to meet the demands of new development would eliminate the short-term impact which would occur during the initial phase of the project.

Fire Protection: Significant short-term impacts on the City's Fire Department would occur during the first phase of development, until a new station is operational in the project area. A second station may be necessary during later phases of project buildout. The developer would be responsible for providing a station site, and construction of the station structure as well as provision of the necessary apparatus and equipment may also be required to mitigate potentially significant impacts.

Energy: Project development would result in an incremental increase in demand for energy. No unique or unusual demands for energy are anticipated to result from implementation of the project in this area due to the provision of a mixture of land uses which would help to reduce future residents travel distances. Conservation measures being considered for the development would further reduce energy demand and consumption.

Parks and Recreation Facilities: The proposed General Development Plan for EastLake includes the provision of open space and park areas to serve future project residents. No adverse impacts related to parks would occur.

Library Services: Project development would result in an incremental increase in demand for library services. Due to the size of the project and distance from the central library, a significant impact could occur unless mitigation measures are implemented. Those recommended by the City librarian include provision of temporary space for a branch library, purchase of books, funding of staff for 1 year and dedication of a site for a permanent branch library.

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

Biological Resources: The majority of the natural vegetation on the project site has been disturbed through agricultural cultivation. The proposed project design includes retention of almost all the remaining native vegetation onsite and associated sensitive species. No significant biological impacts are anticipated as a result of project development, although there will be an incremental reduction in the foraging area for raptors.

Visual Resources: The proposed development of the EastLake Planned Community would substantially alter the visual character of the site from its pastoral appearance to an urbanized community. Specific grading and design features are not available at this time, but mitigation measures to minimize visual impacts are included in the proposed PC regulations. These address grading and architectural design, as well as visual considerations for projects adjacent to designated Scenic Highways. Site-specific visual impacts should be addressed during subsequent project review.

Geology: The designation of land uses on the project site has generally been responsive to geologic conditions except in several possible minor landslide areas. Potential impacts related to slope instability can be mitigated by remedial grading or use of fill to buttress and stabilize the landslides. Potential seismic activity would be no greater at the site than elsewhere in southern California. Construction in accordance with the Uniform Building Code will minimize the effects of earthquake shaking. Prior to final project design, a detailed geologic investigation is required to be conducted to provide grading, foundation and construction recommendations.

Soils: The project site contains areas with highly expansive soils. Unstable soils conditions can be mitigated to insignificance by following the recommendations of an engineering geologist.

Groundwater: Development of the project site would not affect local or regional groundwater conditions in the project vicinity.

Drainage: Development of the proposed project would increase runoff from the site, which would represent an incremental increase in the existing flood discharge of the Sweetwater and Otay Rivers. Several areas downstream are currently subject to flooding problems, and the project contribution to peak runoff could be significant on a cumulative basis.

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The portion of EastLake which is drained by Telegraph Canyon represents 14 percent of the total watershed. Development of this site with urban uses, rather than the assumed agricultural use, would result in an underestimation of the projected peak discharge, and could impact drainage facilities. Development in the portion of the site drained by Long Canyon could also aggravate the existing drainage problem southeast of Bonita Road. Measures to control peak runoff discharge to pre-project levels and provide drainage improvements could mitigate potential drainage impacts.

Mineral Resources: No mineral deposits are known or expected onsite.

Water Quality: Development of the site with urban uses would result in a change in the type of contaminants contained in surface runoff and would decrease sediment loads of runoff. No significant impact on water quality is anticipated from project implementation. The wastewater reclamation plant being considered for sewage treatment would involve the use of treated wastewater for irrigation. Disposal of the treated effluent may be restricted along the eastern margin of the property which drains into Otay Lakes by the RWQCB. No significant water quality impact would occur onsite or in downstream areas.

Air Quality: The proposed EastLake development would represent a significant increase in the planned growth levels within the Chula Vista Planning Area, with a resultant increase in pollutant emissions from mobile and stationary sources. The impact of project implementation would be significant on a cumulative regionwide level due to the departure from planned growth within the air basin. Mitigation measures are available to reduce project-related emissions, but cannot mitigate the impact to insignificance.

Socioeconomics: Development of the proposed project would result in a redistribution of planned housing units and population within the Chula Vista Planning Area. This would affect the rate and density of development in other portions of the Planning Area. Secondary impacts associated with growth of this property, and the potential induced growth on surrounding parcels are discussed individually and in Section IV. The proposed development would provide additional employment opportunities in the Chula Vista area. The fiscal analysis for the project indicated a net benefit to the City during all phases of the project.

Archaeological/Historical Resources: Field investigation of the EastLake property identified three archaeological/historical sites and 14 artifact isolates. Future development of the project area would result in the loss or impairment of the cultural resources present onsite unless appropriate mitigation measures are taken, including surface and subsurface testing.

Paleontological Resources: There is a potential for paleontological resources to be present within the extreme southwestern portion of the project site. A more precise determination of the resource presence can be made through field examination of future soil and geotechnical borings or cut slopes during grading operations. Mitigation measures are available to avoid significant impacts to any paleontological resources onsite.

Noise: Ambient noise levels in the project vicinity would increase as a result of urban development. Significant noise impacts would occur if residential uses were constructed within the 65 dB(A) CNEL contours adjacent to roadways in the project area. Mitigation of noise impacts is possible through construction techniques or noise barriers. Specific noise impacts would need to be determined at the time of individual project review.

Growth Inducement: The project as proposed would introduce an urban development into a currently rural setting, and would involve the extension of roads, sewage facilities, and community services. Development of EastLake could affect both the timing, type and location of growth of adjacent parcels and could encourage additional annexation requests. Although development of the project site is planned to be phased over a 20-year period, the project proposal is considered to have significant secondary impacts associated with growth inducement. If adjacent parcels were to develop at densities similar to EastLake, an overload of facilities such as roads, sewers and drainage structures could result. Other secondary effects would be air quality and community service availability.

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SECTION II

PROJECT DESCRIPTION

2.1 GEOGRAPHIC LOCATION

The EastLake project site is comprised of the 3073-acre Janal Ranch property, located in an unincorporated area of the southern portion of San Diego County. The property is approximately 7.5 miles east of downtown Chula Vista and 7 miles north of the U.S./Mexico border and is contiguous to the City of Chula Vista corporate boundary along one segment of its northwestern area. The project site is directly adjacent on its eastern boundary to the Upper and Lower Otay Lakes. It is bisected on an east/west route by Otay Lakes Road and is about 5 miles east of I-805. The location and topography of the site are indicated on Figures 2-1 and 2-2.

2.2 EXISTING TOPOGRAPHY AND LAND USES

The project site topography is typical of the western foothills of the Peninsular Range, consisting of rolling hills cut by drainage courses. Elevations range from 750 feet above mean sea level (MSL) in the central portion of the site, to 370 feet above MSL in the northwestern corner, where the site slopes down to Proctor Valley. The highest portions of the site, 700 to 750 feet above MSL, are along the crest of the north/south trending ridge in the center of the site that divides the Salt Creek and Telegraph Canyon watersheds (Figure 2-2). Another north/south trending ridge along the site's eastern boundary separates the Salt Creek and Otay Lakes watersheds and reaches elevations of 600 to 650 feet along its crest. A third northeast/southwest trending ridge on the site's northwest corner has ridge crest elevations of approximately 700 feet and divides the Telegraph Canyon watershed from the Sweetwater River watershed.

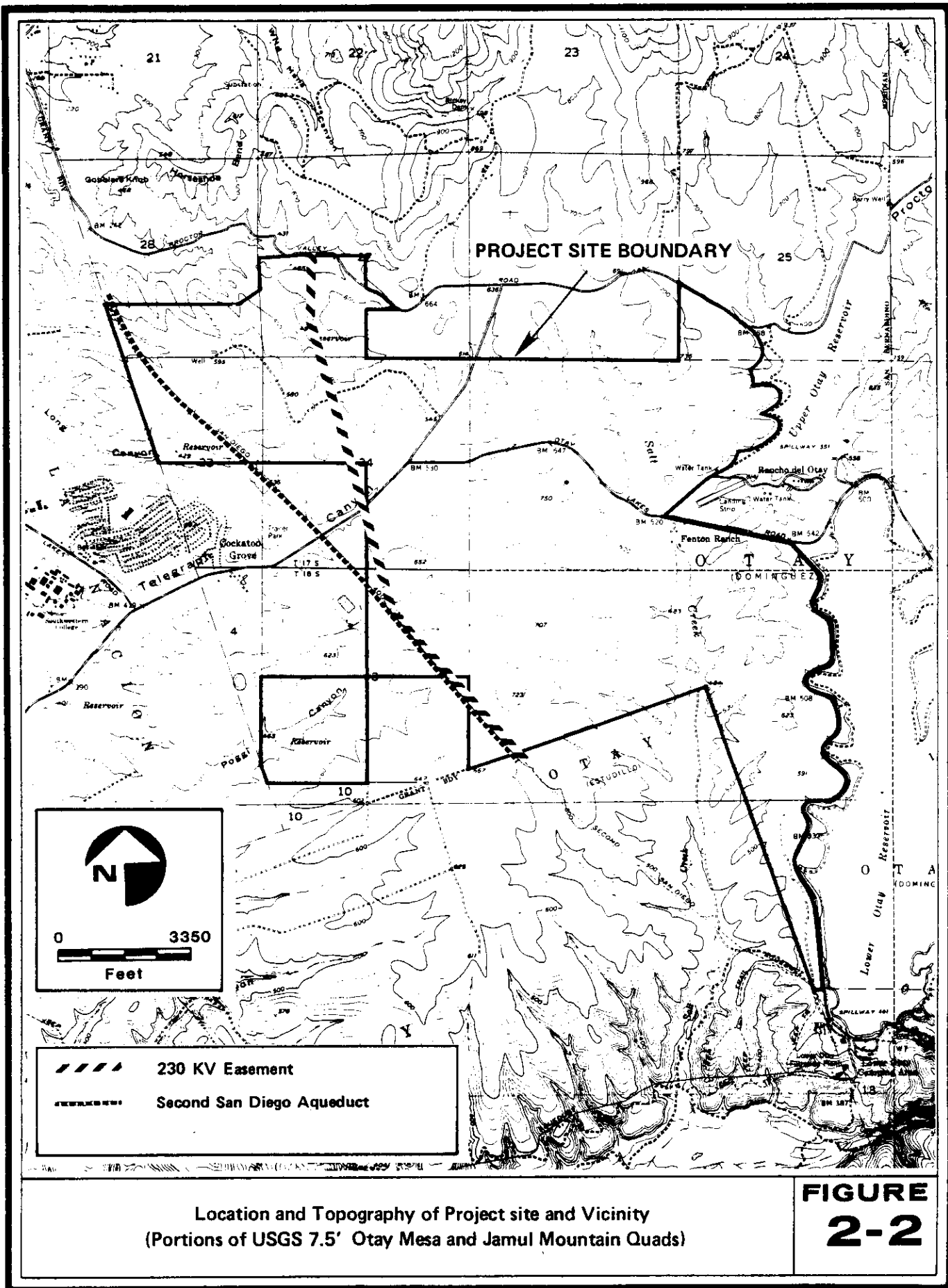
The majority of the Janal Ranch is currently dry-farmed for barley production, with several small areas in the northwestern and southeastern portions of the site remaining natural. Structures on the Janal Ranch are limited to the ranch buildings on the south side of Otay Lakes Road adjacent to Salt Creek.

Other land uses onsite include the Second San Diego Aqueduct, which crosses the southwestern and northwestern portions of the property, a water tank in the central part of the site, Easterly Otay Lakes Road, and several dirt roads. San Diego Gas & Electric Company has plans to construct a 230 kV transmission line across the western portion of the site (Figure 2-2).

The land surrounding the EastLake site is largely undeveloped. A large area to the south and a smaller area to the north is used for agricultural and grazing purposes by United Enterprises. Further north, the land is not cultivated and remains in a natural condition. The ranch headquarters for United Enterprises are located northeast of the ranch buildings for Janal Ranch.

Upper and Lower Otay Lakes are located adjacent to the eastern project boundary. Otay Lakes is a regional park used extensively for recreational

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purposes including fishing, camping and picnics. Further east and southeast is the more rugged, undeveloped terrain of the Jamul and San Ysidro Mountains, with San Miguel and Mother Miguel Mountains located north of the project site.

Some urban uses are located west of the project site, including a mobile home development, single-family residential uses and, further west, Southwestern Community College. Additional existing and planned residential uses within the Chula Vista, Bonita and Sunnyside areas are located to the northwest and west.

2.3 PROJECT CHARACTERISTICS

The EastLake project as proposed is designed as a 3073-acre Planned Community including a mixture of residential, commercial, industrial, office, community, educational, and open space land uses. The applicant is proposing to annex the site to the City of Chula Vista from an unincorporated area of San Diego County. The Local Agency Formation Commission (LAFCO) has not adopted a sphere of influence for Chula Vista, although the site is shown on the Chula Vista General Plan.

The applicant is requesting a prezone to Planned Community (PC) and adoption of a General Development Plan and phasing schedule to guide development of the site. To allow such development, a General Plan Amendment would be required for the Land Use and Circulation Elements of the Chula Vista General Plan. The GPA and prezone are to be processed concurrently and, if approved, a request for annexation will be made.

At later stages of the project development program, additional discretionary approvals and actions would be required for the project. These actions would include the City of Chula Vista's review and approval of sectional development plans and site plans, subdivision maps, grading permits, and other project-related permits. The project applicant will also be required to obtain a 1601/1603 permit from the California Department of Fish and Game if the development proposes alteration of any streambed under the Department's jurisdiction. The project applicant may also be required to obtain a 404 permit from the U.S. Army Corps of Engineers if the development proposes encroachment or disruption of onsite vernal pools under permit control.

2.3.1 Existing General Plan Designations

The EastLake project site is located within the jurisdiction of the County of San Diego in the Otay Subregional Planning Area. The County's Regional Land Use Map designates the majority of the project site as Intensive Agriculture, with the remainder of the site shown for very low density, non-urban residential uses.

The Chula Vista General Plan Land Use map also designates the majority of the site for Agriculture and Reserve. The northwestern portion of the site is designated for Medium Density Residential uses (4 to 12 du/acre).

A more detailed discussion of land use can be found in Section 3.1. Circulation and access is discussed in Section 3.3.

2.3.2 Proposed General Plan Amendment

The General Plan Amendment proposed for the project site would involve a change in land use designations as illustrated on Figure 2-3.

The majority of the site would be designated for medium density residential uses (4-12 du/acre). Low density residential uses are proposed for the north-western portion of the site, portions of the northeastern and southeastern areas adjacent to Otay Lakes, and in the south-central section of the property. High and very high density residential uses are designated in several locations with most adjacent to the commercial and industrial areas.

There are two commercial designations located at proposed major roadway intersections. The industrial and office uses are clustered in the northern portion of the site.

Open space land uses are designated throughout the site and include the eastern project boundary adjacent to Otay Lakes, steeply sloping land in the north-western portion of the site, the second San Diego aqueduct, and an open space system through the central portion of the property. School and park locations are also indicated by the proposed General Plan map.

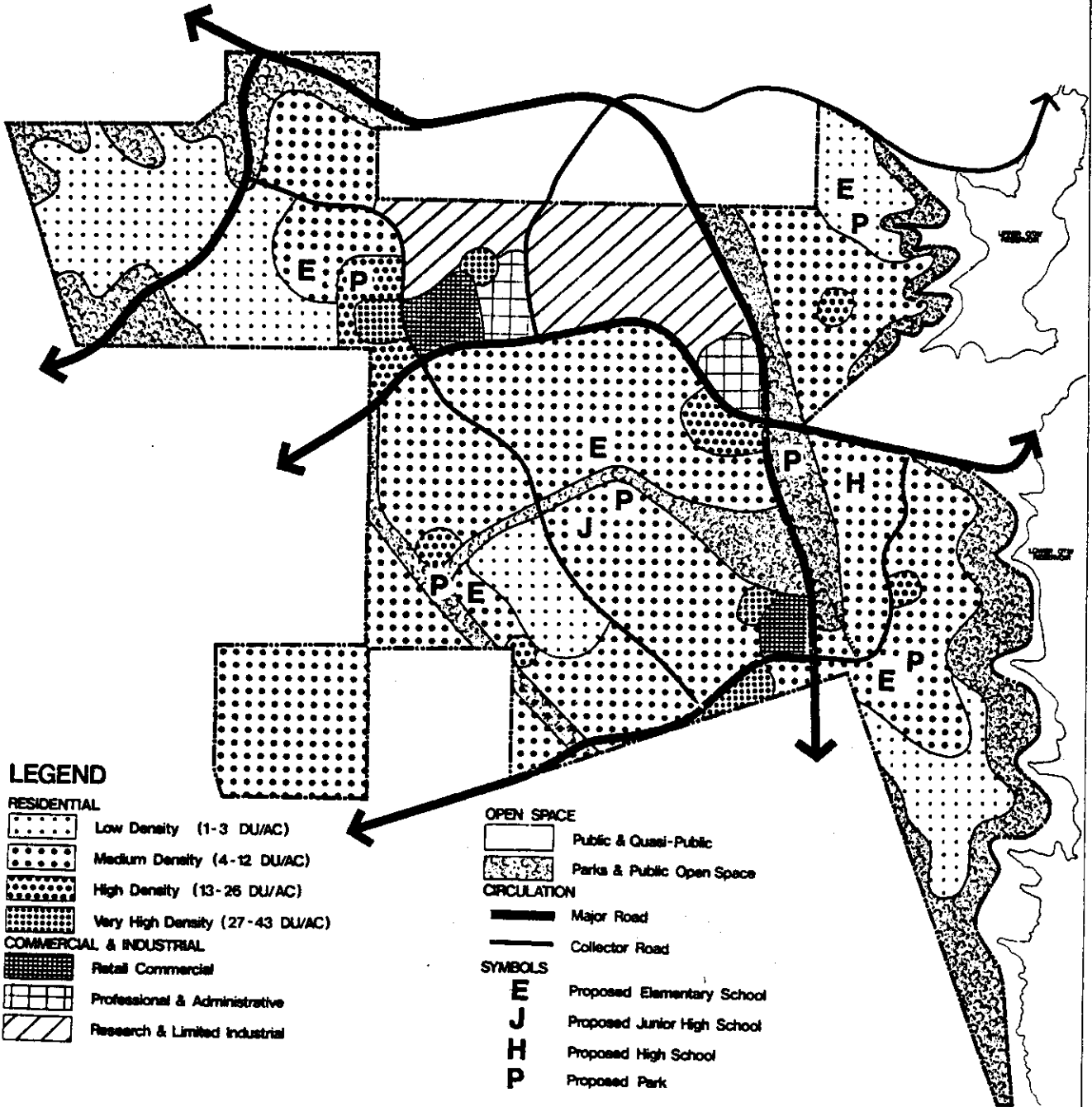
The proposed Circulation system is shown on Figure 2-4. The location of Major Roads designated within the project boundaries would be changed from the existing plan designations, and additional collector roads onsite would be indicated by the General Plan map. An analysis of traffic impacts associated with the project can be found in Section 3.3.

2.3.3 Planned Community of EastLake

The General Development Plan for EastLake is shown on Figure 2-5. This plan indicates the project land uses in greater detail than is shown by the proposed General Plan designations. Specific acreage, density and land uses which would guide development of the 3073-acre site are defined by the Planned Community District Regulations for EastLake (available for review at the City of Chula Vista Planning Department).





The project as proposed would allow a maximum of 11,800 dwelling units within a total area of 1720.5 acres (approximately 56 percent of the total site area). There will be a mix of seven residential density types, including conventional single-family detached dwellings on lots ranging from 6000 square feet to 1 acre; zero and double-zero lot line patio homes, duplexes, triplexes, mobile home parks, and other attached and detached residential cluster arrangements; and condominiums, garden apartments, and other similar multi-family residential uses. A detailed description of and standards for each type of residential use is included in the Planned Community District Regulations for EastLake.

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LEGEND



RESIDENTIAL

-  Low Density (1-3 DU/AC)
-  Medium Density (4-12 DU/AC)
-  High Density (13-26 DU/AC)
-  Very High Density (27-43 DU/AC)

COMMERCIAL & INDUSTRIAL

-  Retail Commercial
-  Professional & Administrative
-  Research & Limited Industrial

OPEN SPACE

-  Public & Quasi-Public
-  Parks & Public Open Space

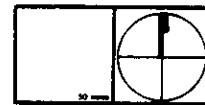
CIRCULATION

-  Major Road
-  Collector Road

SYMBOLS

- E** Proposed Elementary School
- J** Proposed Junior High School
- H** Proposed High School
- P** Proposed Park

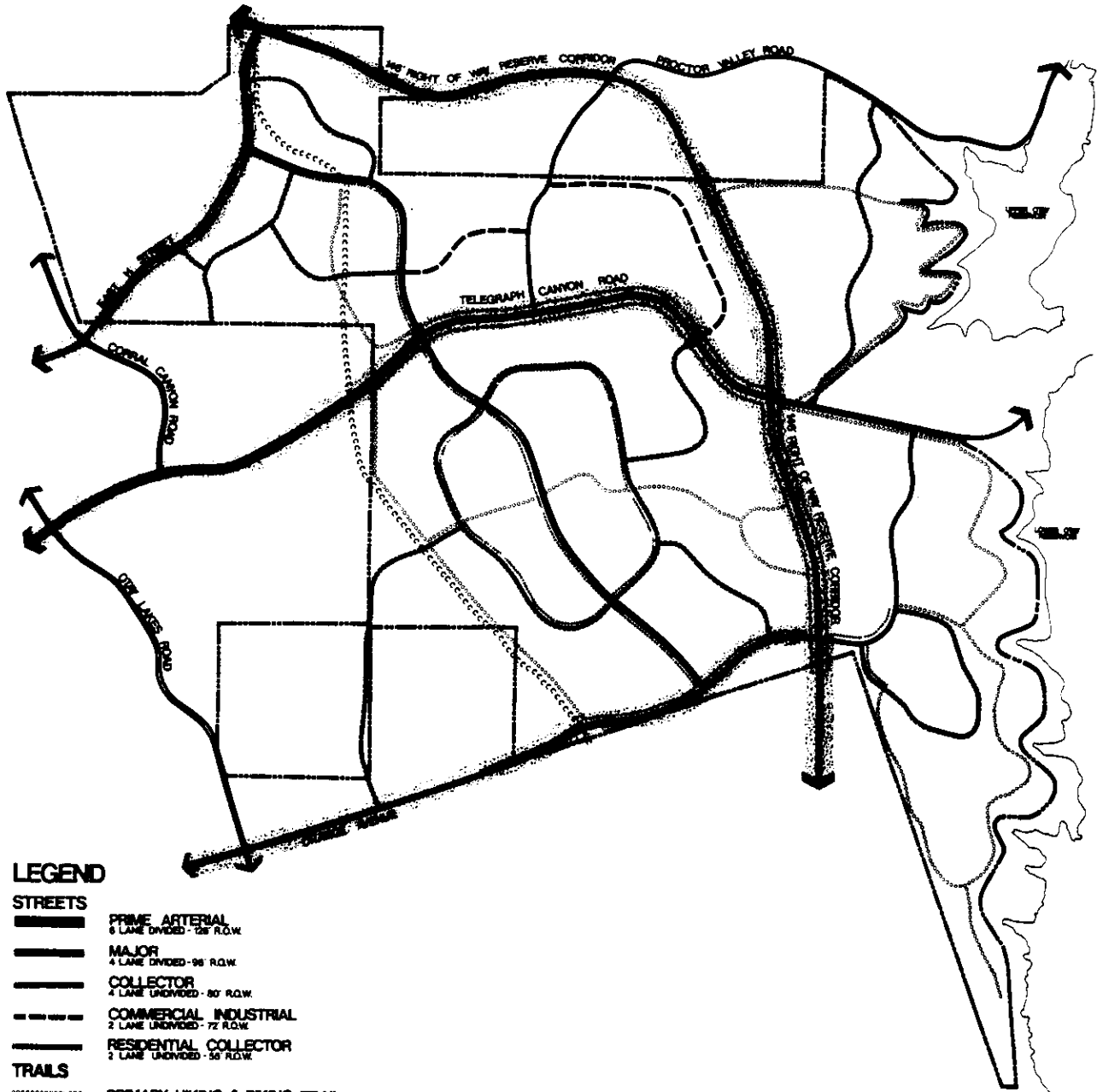
EastLake
a planned community by Cadillac Fairview Homes West



THE PLANNING CENTER
A COMMITMENT TO EXCELLENCE
1000 W. WALNUT ST. SUITE 1000
DENVER, CO 80202

Proposed General Plan Designations

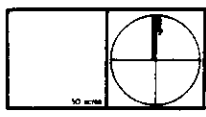
FIGURE 2-3



LEGEND

- STREETS**
- PRIME ARTERIAL
6 LANE DIVIDED - 125' R.O.W.
 - MAJOR
4 LANE DIVIDED - 95' R.O.W.
 - COLLECTOR
4 LANE UNDIVIDED - 80' R.O.W.
 - COMMERCIAL INDUSTRIAL
2 LANE UNDIVIDED - 75' R.O.W.
 - RESIDENTIAL COLLECTOR
2 LANE UNDIVIDED - 55' R.O.W.
- TRAILS**
- PRIMARY HIKING & BIKING TRAIL
 - SECONDARY HIKING & BIKING TRAIL
 - EQUESTRIAN TRAIL
 - SCENIC HIGHWAY

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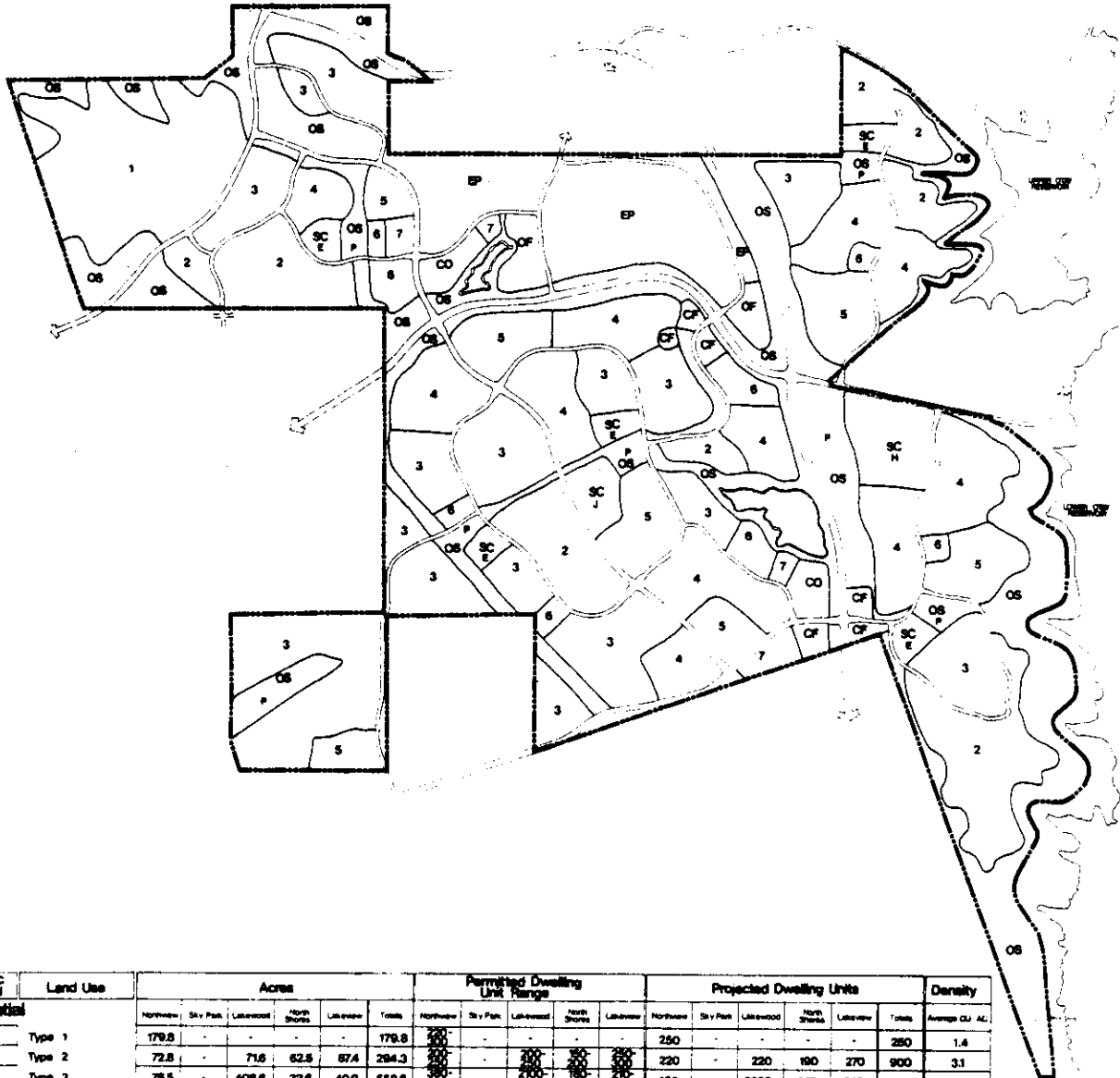
THE PLANNING CENTER
2000 N. 100th Ave., Suite 100
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FAX: (403) 462-1101

EXHIBIT B

Proposed Circulation System

FIGURE 2-4

R-11918



Graphic Symbol	Land Use	Acres					Permitted Dwelling Unit Range					Projected Dwelling Units					Density Average DU/Ac.						
		Northview	St V Park	Lakewood	North Shores	Lakewood	Totals	Northview	St V Park	Lakewood	North Shores	Lakewood	Northview	St V Park	Lakewood	North Shores		Lakewood	Totals				
1	Type 1	179.8	-	-	-	-	179.8	200	-	-	-	-	250	-	-	-	-	250	1.4				
2	Type 2	72.8	-	71.6	62.5	97.4	294.3	200	-	-	-	-	220	-	220	190	270	900	3.1				
3	Type 3	78.5	-	408.6	32.8	40.8	559.8	200	-	-	-	-	450	-	2320	210	240	3200	5.7				
4	Type 4	20.4	-	220.8	88.2	90.9	401.1	150	-	-	-	-	150	-	1700	530	700	3100	7.7				
5	Type 5	13.6	-	105.7	41.0	38.2	198.5	200	-	-	-	-	180	-	1200	480	450	2300	11.5				
6	Type 6	17.5	-	38.8	4.6	4.3	62.0	200	-	-	-	-	380	-	770	110	100	1350	21.8				
7	Type 7	7.4	2.9	14.9	-	-	25.2	200	100	200	-	-	200	100	400	-	-	700	27.8				
Residential Sub-Totals		398.0	2.9	857.0	208.9	282.7	1720.5	Maximum Dwellings Permitted					1810	100	6810	1520	1760	11,800	6.9				
Non-Residential																							
EP	Employment Park	-	208.9	-	-	-	208.9																
OF	Office	-	30.6	-	-	-	30.6																
CO	Commercial	-	14.2	14.6	-	-	28.8																
CF	Community Facilities	-	-	18.0	-	8.6	26.6																
SC	School	8.7	-	38.7	9.4	56.4	113.2																
OS	Open Space/Recreation	190.1	55.6	187.2	80.7	241.4	715.0																
	Circulation	52.2	34.7	98.1	18.4	30.0	223.4																
Non-Residential Sub-Totals		251.0	344.0	334.6	86.5	338.4	1352.5																
Project Totals		639.0	348.9	1191.6	296.4	599.1	3073.0																
Gross Project Densities		2.8	0.3	5.5	5.1	2.9	3.8																

- Graphic Notes**
- E Elementary School
 - J Junior High School
 - H High School
 - P Conceptual Park Location
 - Conceptual Lake Location



General Development Plan

FIGURE 2-5

The average net residential density of the project is 6.9 du/acre, based on the total gross residential acres within the project. The net density ranges for the seven residential categories are as follows:

<u>Residential Category</u>	<u>Residential Net Density Range (units/acre)</u>
Type 1	0.1-3
Type 2	3-5
Type 3	5-9
Type 4	9-12
Type 5	12-20
Type 6	20-30
Type 7	30+

The remaining 44 percent of the project site will be used for a variety of non-residential land uses, as indicated on Figure 2-5, including 229.4 acres for the circulation system.

The plan provides for 28.8 acres in two locations of commercial (CO) uses intended to provide the community with neighborhood commercial facilities (i.e., grocery stores, convenience retail, gas stations, drug stores, etc.).

The Planned Community would also include a 208.9 acre employment park (EP) (light/medium industrial, research and development, warehousing, and offices) and 30.6 acres of office (OF) development adjacent to the employment park. These uses would provide employment opportunities within the project for residents of the Planned Community and the surrounding region.

Community facilities (CF) to provide services to the community are proposed in six locations. The permitted principal uses of these sites would be civic uses and public facilities (fire substation, police substation, City administrative offices), community support uses (community center, post office, churches, day-care center), a water storage tank, and water reclamation facility.

There are 113.2 acres reserved for schools (SC) (five elementary schools, one junior high school, and one high school) pending decisions by the affected school districts as to educational facility needs within the proposed community. The plan also provides for 715 acres of open space/recreation uses. These areas would provide active and passive open space, natural open space, lakes and ponds, public and private parks, and public and private non-commercial recreation areas, uses, and facilities (recreation facilities, swimming pools, country clubs). They could also provide equestrian centers and commercial recreation uses where permitted.

Figure 2-4 illustrates the proposed circulation plan which would serve the EastLake Planned Community. The plan also identifies a master plan hiking and biking trail system and an equestrian trail system.

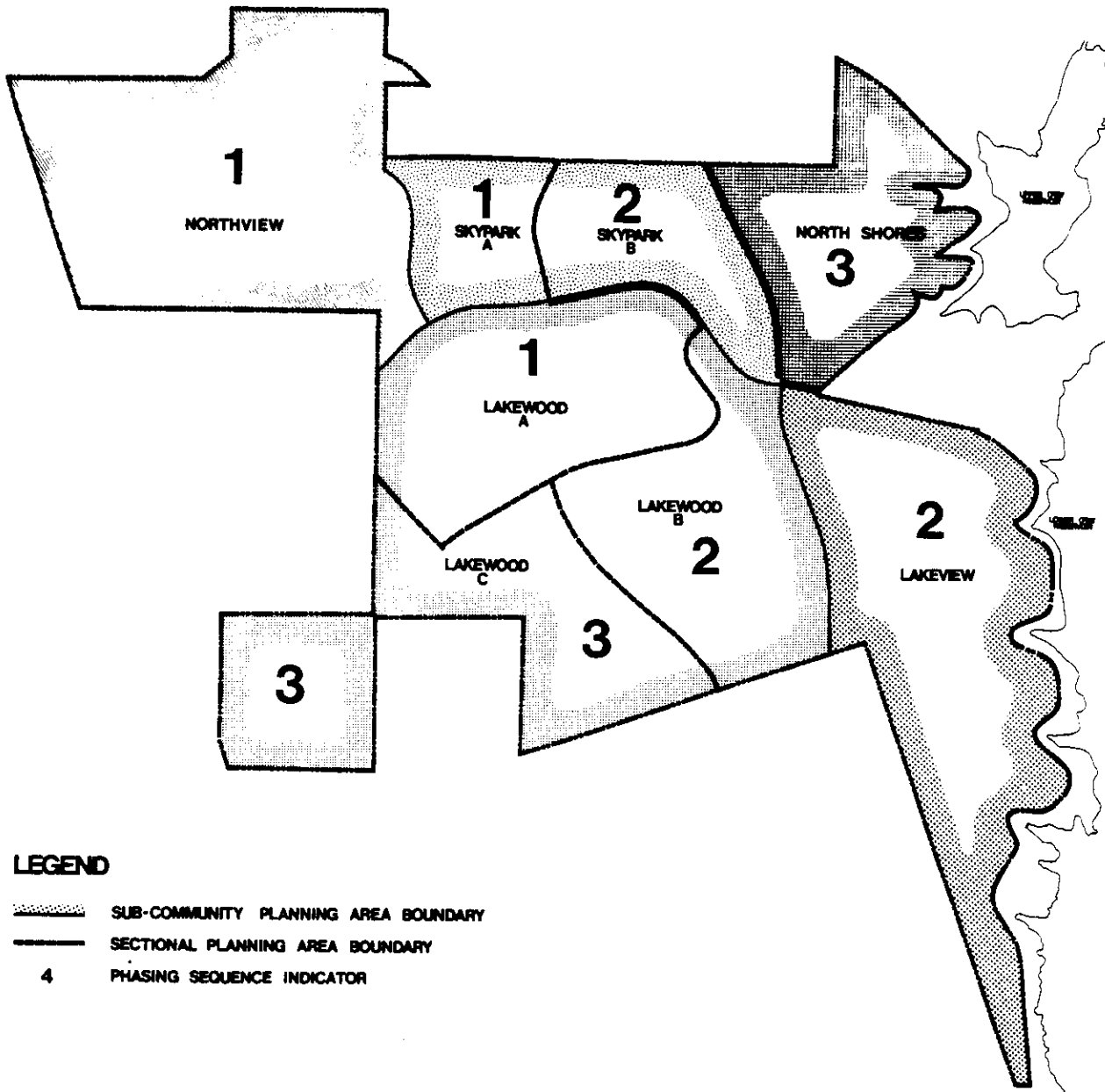
The project site has been divided into five sub-communities whose relative locations are shown on Figure 2-6. A tabular summary of land uses is shown on Figure 2-5. The total acreage within each sub-community is as follows:

Northview	639.0
Sky Park	346.9
Lakewood	1191.6
North Shores	296.4
Lakeview	599.1

The phasing of the EastLake Planned Community is estimated to occur over a 16 to 20 year time span in three sequential phases (Figure 2-6). Table 2-1 presents a statistical summary of the uses within each phase area.

The total population of EastLake is estimated to be 30,445, with growth spread over the entire period of project development. Population estimates (2.58 persons per unit) for each phase are as follows:

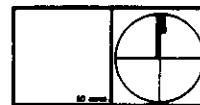
Phase 1	10,475
Phase 2	10,578
Phase 3	9,392



LEGEND

-  SUB-COMMUNITY PLANNING AREA BOUNDARY
-  SECTIONAL PLANNING AREA BOUNDARY
-  PHASING SEQUENCE INDICATOR

EastLake
a planned community by Cadillac Fairview Homes West



THE PLANNING CENTER
A DIVISION OF CADILLAC FAIRVIEW HOMES WEST
1111 EAST LAKESHORE DRIVE, SUITE 200
NEWPORT BEACH, CA 92660 (714) 840-4000

EXHIBIT D

Proposed General Development Schedule

FIGURE 2-6

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Table 2-1
 STATISTICAL SUMMARY OF LAND USE BY PHASE

Land Use	Approximate Acres			Total	Approximate Dwelling Units			Total
	Phase 1	Phase 2	Phase 3		Phase 1	Phase 2	Phase 3	
Residential								
Type 1	180	0	0	180	250	0	0	250
2	72	102	120	294	220	310	370	900
3	216	59	284	559	1,230	330	1,640	3,200
4	140	166	95	401	1,090	1,290	720	3,100
5	45	97	58	200	500	1,100	210	2,300
6	22	30	10	62	470	670	0	1,350
7	10	15	0	25	300	400	0	700
Employment Park	66	143*	0*	209				
Office	18	13	0	31				
Commercial	14	15	0	29				
Community Facilities	12	15	0	27				
School	20	73	20	113				
Other	375	404	165	944				
TOTAL	1,190	1,132	752	3,073	4,060	3,640	11,800	

*143 acres will be developed during both Phases 2 and 3.

SECTION III
IMPACT ANALYSIS

Prior to preparation of the Environmental Impact Report (EIR) an Environmental Constraints Inventory was prepared for the subject property. That document was intended to provide information on the environmental resources and hazards present onsite for planning purposes, as well as a discussion of existing conditions for issues addressed in this EIR. A large portion of that document has been incorporated into this EIR as the environmental setting for each topic. The applicant also submitted an Environmental Data Base, including several special studies, which was utilized during the planning of the proposed project. Those documents are on file with the Chula Vista Planning Department.

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

The impact analysis is structured to evaluate the potential effects from each of the discretionary actions required for project implementation. This section includes the impacts which would result from the changes in land uses proposed for the EastLake project site from existing designations to those detailed by the general development plan, impacts associated with annexation to the City of Chula Vista, and the long range, areawide and cumulative impacts of the proposed Planned Community of EastLake.

3.1 LAND USE

3.1.1 Existing Conditions

The EastLake project site is comprised of the 3073-acre Janal Ranch, which is used primarily for agricultural purposes. The majority of the property is dry farmed for barley production. An area of the northwestern portion of the property is leased on a month-to-month basis for running about 15 head of cattle. Water accumulates in a catch basin, and the leased acreage is used primarily for watering the cattle, with some grazing allowed as well. Structures on the EastLake property are limited to the ranch buildings on the south side of Otay Lakes Road adjacent to Salt Creek.

Other land uses onsite include the Second San Diego Aqueduct, which crosses the southwestern and northwestern portions of the property, a water tank in the central part of the site, Easterly Otay Lakes Road, and several dirt roads. San Diego Gas & Electric Company has plans to construct a 230 kV transmission line across the western portion of the site as shown in Figure 2-2.

The land surrounding the EastLake site is largely undeveloped. A large portion to the south and a smaller area to the north is used for agricultural and grazing purposes by United Enterprises. Further north, the land is not cultivated and remains in a natural condition. The ranch headquarters for United Enterprises is located northeast of the ranch buildings for Janal Ranch.

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Upper and Lower Otay Lakes are located adjacent to the eastern project boundary. Otay Lakes is a regional park used extensively for recreational purposes including fishing, camping and picnics. Further east and southeast is the more rugged, undeveloped terrain of the Jamul and San Ysidro Mountains, with San Miguel and Mother Miguel Mountains located north of the project site.

Some urban uses are located west of the project site, including a mobile home development, single-family residential uses and, further west, Southwestern Community College. Additional existing and planned residential uses within the Chula Vista, Bonita and Sunnyside areas are located to the northwest and west.

Land Use Plans and Policies

EastLake is located east of the City of Chula Vista within an unincorporated area of San Diego County. The Local Agency Formation Commission (LAFCO) has not adopted a sphere of influence for Chula Vista. However, the project site has been included on the City's General Plan land use map and is generally considered to be within the City's Planning Area. The land use plans and policies of both the City and the County are described in the following discussion.

County of San Diego

The EastLake project site is located within the jurisdiction of the County of San Diego, in the Otay Subregional Planning Area. The Regional Land Use Map and the Regional Growth Management Plan (RGMP) (San Diego County, 1978) classify the project site as an Estate Development Area, which combines agricultural and low density residential uses. Estate Development Areas (EDAs) are those areas outside the Urban Limit Line but within the boundaries of the County Water Authority. It is a policy of the Land Use Element that urban development will not occur outside the Urban Limit Line during the life of the plan.

The RGMP includes goals and policies for development of the unincorporated areas of San Diego County. The overall goals are:

- Urban growth should be directed to areas within or adjacent to existing urban areas. The rural setting and lifestyle of the remaining areas of the County should be retained.
- Growth should be phased with facilities.
- Growth should be managed in order to provide for affordable housing and balanced communities throughout the unincorporated area.
- Urban portions of the unincorporated area should be encouraged to either annex to an adjacent city or incorporate. As an alternative, urban levels of service should be financed through County Service Areas, Community Service Districts or an alternative mechanism.

The majority of the project site is designated by the County's Regional Land Use Map as Intensive Agriculture (Figure 3-1). Agricultural designations are intended to "promote agricultural use as the principal and dominant use. Uses that are supportive of agriculture or compatible with agricultural uses are also permitted."

The remainder of the project site is designated for non-urban residential uses. As defined by the Land Use Element, "these designations provide for areas not intended to develop at urban densities. Urban improvement standards will not apply and urban level services will not be provided." The northwestern portion of the property is shown for Estate Residential, which allows minor agricultural and low density residential uses, with minimum parcel sizes of 2 or 4 acres dependent on slope. The southeastern extension of the property adjacent to Lower Otay Reservoir is designated Multiple Rural Use, with minimum parcel sizes of 4, 8 or 20 acres based on slope or County Groundwater Policy criteria (see Figure 3-1).

Clustering and lot averaging is allowed in EDAs if the parcel is 40 acres or larger, at least 40 percent of the project area is retained as permanent open space, and the project will not require urban levels of service.

The County of San Diego Use Regulation for the project site is S-87, Limited Control. This designation provides "limited controls on the use of property in portions of the unincorporated area of the County pending specific studies to enable rezoning of the area in conformance with the adopted General Plan." Uses presently allowed in the zone are similar to the General Agricultural (A-72) Use Regulations which are intended to create and preserve areas for the raising of crops and animals. Allowable uses include Family Residential, Essential and Fire Protection Services, various agricultural use types and custom manufacturing.

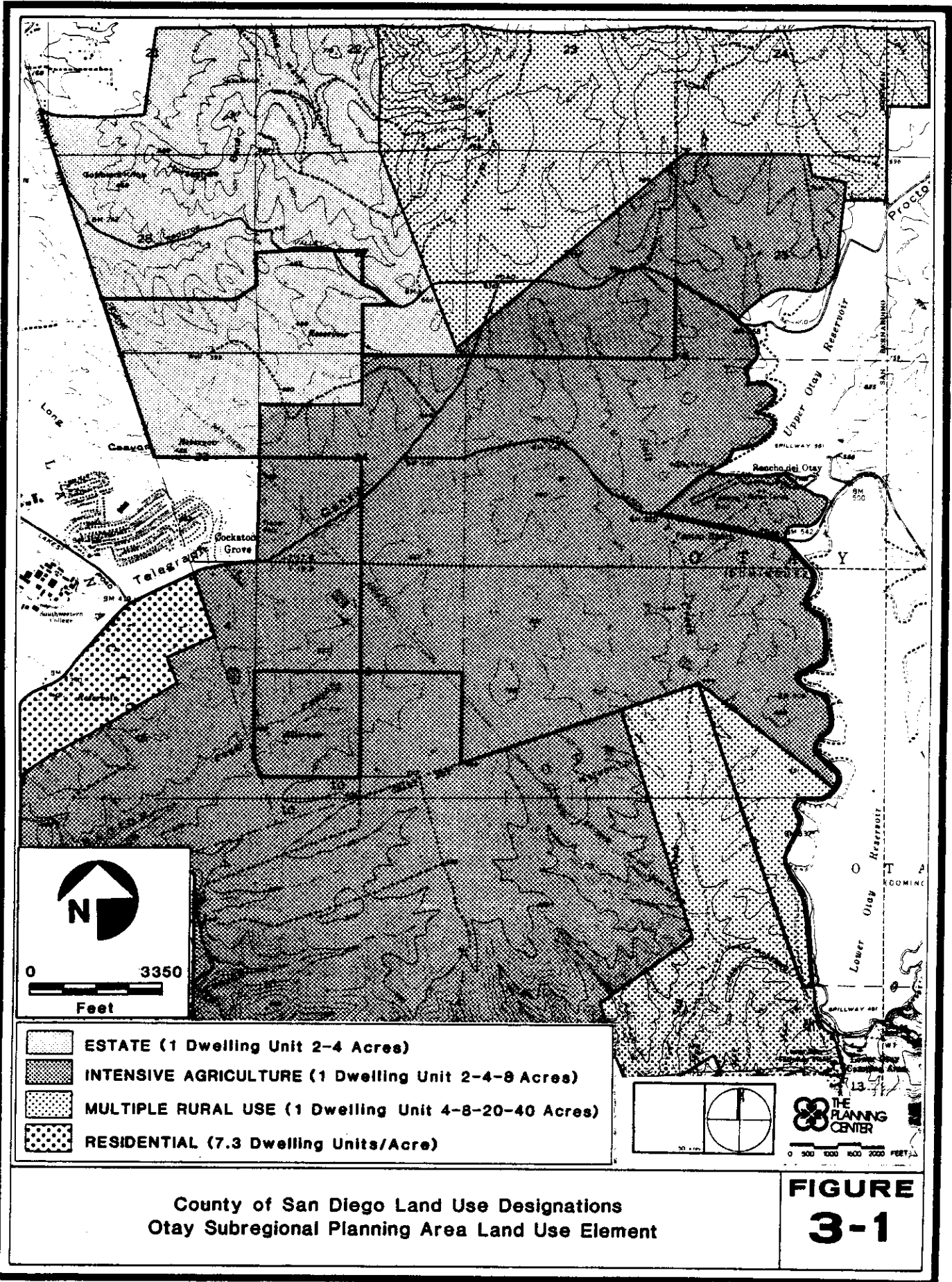
City of Chula Vista

The Chula Vista General Plan land use map designates the majority of the project site for Agriculture and Reserve (Figure 3-2). The northwestern portion of the site is designated for Medium Density Residential Uses (4 to 12 du/acre). The Open Space Element also shows most of the property for Interim Open Space - Agricultural Preserve.

The Open Space Element states that:

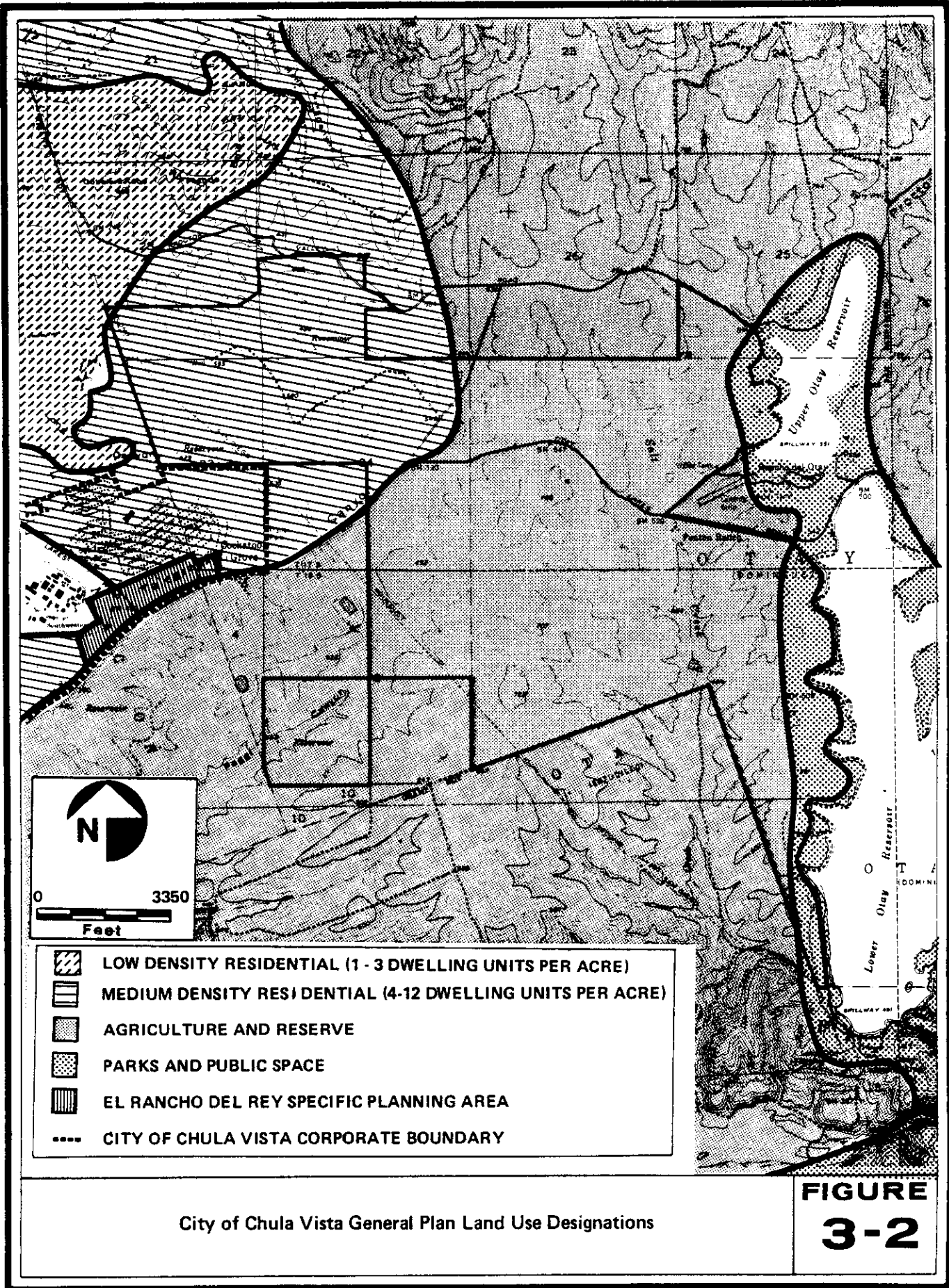
"The Inventory of Existing Open Space Areas and the Open Space Element Map show approximately 10,850 acres of open space in the eastern portion of the planning area. This area is currently shown on the General Plan as Agriculture and Reserve. As the General Plan designation indicates, this area is currently in agricultural use and in reserve for future urban development. This area will be the subject of further study to determine locations of subareas which should be afforded more permanent protection."

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**County of San Diego Land Use Designations
Otay Subregional Planning Area Land Use Element**

**FIGURE
3-1**



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The Chula Vista Planning Commission has recently recommended adoption of a Growth Management Policy to the City Council. The goal of the policy is "The promotion of the orderly growth and development of the Chula Vista Planning Area. . ." It is intended that the Chula Vista area "develop in a general pattern from west to east and that undeveloped lands should be considered as ready for development if they are both substantially contiguous with the city limits and with lands which are already developed. In addition, there are a number of specific policy statements which apply to the EastLake property. These are not reiterated here, but are available for review at the Chula Vista Planning Department.

State of California Urban Strategy

The State of California Environmental Goals and Policy Report of 1978 is commonly known as "An Urban Strategy for California." The report is intended to identify the state's policies on growth, development and environmental quality and recommend specifications to carry out these policies. A number of broad goals are included in the Urban Strategy, with a list of priorities for locating new urban development in California. These are:

- First Priority: Renew and maintain existing urban areas, both cities and suburbs.
- Second Priority: Develop vacant and under-utilized land within existing urban and suburban areas and presently served by streets, water, sewer and other public services. Open space, historic buildings, recreational opportunities and the district identities of neighborhoods should be preserved.
- Third Priority: When urban development is necessary outside existing urban and suburban areas, use land that is immediately adjacent. Non-contiguous development would be appropriate when needed to accommodate planned open space, greenbelts, agricultural preservation or new town community development.

Recent legislation regarding the housing supply shortfall for all income groups in California indicates that the provision of housing within the State is an issue of major concern and importance. The need for additional housing should be balanced with the Urban Strategy policies. An overriding need for additional housing in the proposed location at this time, in a manner which is growth inducing and in conflict with the Urban Strategy, has not yet been demonstrated.

Land Use Proposals in Project Vicinity

A sectional development plan and tentative map for the Bonita Long Canyon project area has been submitted to the City of Chula Vista. This 650-acre site is adjacent to EastLake on the west, north of existing residential development. The plan for Bonita Long Canyon includes 347 acres of open space and 831 residential units at a net density of 1.28 units per acre. The El Rancho del Rey Specific Planning Area is located further west and includes 2272 acres planned for development with 6002 residential units, commercial and public facilities

uses. The net density of the residential areas (excluding the substantial commercial acreage) is approximately 2.5 units per acre.

Several years ago, a 3400-acre parcel north of EastLake known as Bonita Miguel was proposed for development with residential, commercial and open space uses. This project was denied by the County of San Diego for several reasons. The most significant problems associated with the proposal were related to land use and growth issues, sewage disposal and traffic circulation.

The City of San Diego is developing a community plan for Otay Mesa, including the area south of Otay Valley to the U.S./Mexico border, and east of I-805 to the San Ysidro Mountains. Planning efforts are focused on developing the 12,475-acre area with a mixture of residential, industrial, commercial, open space and agricultural land uses.

3.1.2 Impacts

While the EastLake project is currently within San Diego County, if the proposed annexation to Chula Vista is approved, the site would not develop under County jurisdiction and County plans and policies would have no regulatory effect. The County's Local Government Structure Policy (Board Policy I-55) encourages annexations in those cases where large areas are proposed for development at a density that would require a higher or extended level of service. The proposed annexation of EastLake to Chula Vista would be in conformance with that policy (Diplock, 1981).

Implementation of the proposed GPA and General Development Plan would significantly change the types of land uses allowed on the project site from agriculture-open space character to an urban community of substantial intensity. The existing and proposed residential development west of the project site is occurring at a lower overall density (1.3-2.5 du/acre) than the proposed project (4.2 du/residential acre). The northwestern area within EastLake, shown as Type 1 Residential on Figure 2-5, and immediately adjacent to future low density residential development to the west, is planned for a similar density (1.4 du/acre) to the offsite parcels. This avoids potential land use conflicts with the adjacent parcel by providing a gradual transition into the higher density EastLake community.

The mixture of residential densities and industrial and commercial uses which are included in the project will create an urban community in the eastern portion of the Chula Vista Planning Area which is presently more rural in nature.

The proposed project would conflict with the Open Space Element of the City's General Plan, which indicates the City's intention of maintaining the property in agricultural use for the life of the plan (until 1990). Development of an urban community would not encourage retention of agricultural land. However, as previously noted, the current General Plan land use designation indicates that the City expects the subject property to experience growth in the future, and eventually to be converted from agricultural to urban land use.

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As the City of Chula Vista grows from west to east, development is anticipated to reach the EastLake site at some point in the future. The 650-acre Bonita Long Canyon development, adjacent to the northwest border of EastLake, has been approved, and will consist of residential units and open space. This type of land use would be compatible with EastLake development, and would complement it, in that EastLake would contain services usable by residents of Bonita Long Canyon and other development west of the project site. Land to the south, southwest and north of the project site is undeveloped and no development plans are currently proposed. The areas to the south and southwest are currently used for agriculture. An urban development of the intensity planned for EastLake is not anticipated to significantly impact the adjacent agricultural uses in terms of land use compatibility, but could affect the type and timing of future development (see Section IV, Growth Inducement).

Along the eastern boundary of the project site open space is proposed which would serve as a buffer zone between EastLake and the Otay Reservoirs. The buffer zone would serve to lessen adverse impacts, but would not entirely remove them. The reservoirs serve as a regional park extensively used for fishing, picnicking, camping and hiking. The presence of an urban community to the west of the lakes could change the character of the user's experience of the park, regardless of the architectural design and sensitivity of the development plans. Project implementation would incrementally increase use of the Otay Lakes park area. EastLake residents would be able to take advantage of the proximity of the park, and its use would increase, requiring increased protection and maintenance of the area. Increased use of the Lakes is inevitable as the South Bay area grows; however, development of EastLake as proposed would hasten growth near the park and thereby increase user pressure on the park at a faster rate.

The EastLake Planned Community is proposed to include a mixture of land uses to be developed in phases over a period of approximately 20 years. The developer's fundamental concept for the project is that of a large-scale multi-use planned development having its own identity within the City of Chula Vista's urban environment. In designing this community, the uses included are located to provide a central "activity spine" to include the employment parking, shopping centers, recreation and community facilities along the major transportation corridor through the project. An open space network has been designated which would link and define areas within the project, incorporating bikeways and trails. The open space corridor system would include both active and passive recreation areas.

The variety of land use types proposed have been located in a community structure which provides a mix of land uses within each phase of development. No significant land use conflicts are anticipated from internal site design.

The Planned Community District Regulations for EastLake would apply to all development within the community. In addition to approvals necessary for subdivision maps and required permits, development within EastLake would be subject to Sectional Development Plans and Site Plan and Architectural Approval.

As Sectional Area Plans are developed for each portion of the property, specific project plans should be evaluated to assure that adjacent uses are compatible. Specific areas which should be closely evaluated include the 230 kV transmission corridor and the San Diego Aqueduct which cross the property, to assure that detailed site design provides adequate buffering for the residential and school uses designated adjacent to them.

The project plans indicate that 10 percent of the planned 11,800 residences would be priced to be available to moderate income families, and the remaining homes would be available at higher, mixed prices. The homes would be located in various areas and at varying densities in accordance with the land use plan map. The commercial and industrial developments in the community would be separated from most residential areas by open space and parks, and would be adjacent to some of the high density areas proposed. Approximately 7942 jobs would be created in the proposed community, enough to provide employment for a little more than 26 percent of the estimated ultimate population of EastLake.

In San Diego County, an average of 38 percent of the population was employed in 1978 (SANDAG, 1978). If this average is applied to the ultimate population anticipated at EastLake (30,445), there would be a need for 11,569 jobs, 68 percent of which could be supplied within the community. The remaining population seeking employment would have to work outside of EastLake. Considering the site's distance from other existing employment centers (downtown Chula Vista is 7.5 miles from EastLake, downtown San Diego is 12 miles away, Kearny Mesa is 18 miles away, and Imperial Beach is 10 miles away), additional employment opportunities within EastLake could help further reduce impacts to energy supply, air quality and transportation. Designation of more land for industrial, commercial, and business use would increase the number of jobs locally available and create a more self-sustaining community (see Section V, Alternatives).

The community plans for the EastLake development incorporate land use features intended to create a balanced community in terms of land use, transportation, and socio-economic considerations. The General Development Plan determined sites for the various land uses based on factors of accessibility, site suitability, relationships with surrounding land uses, phasing considerations and visibility. The activity corridor, containing industrial, commercial, and business areas, community facilities and open space, was designed to separate individual neighborhoods while providing convenient public access to those facilities and maintaining a community structure, tying together the diverse elements of the development. EastLake would be more self-contained than a purely residential development in the same area, since the development plan includes establishment of recreational, employment, entertainment, and shopping opportunities within the community. However, the provision of a mixture of land uses in the same area does not assure that people will live and work in the same area. It can be expected that the employment park would accommodate workers from the surrounding area. Commercial areas may also be used by persons in areas adjacent to EastLake.

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State of California Urban Strategy

The goals of "An Urban Strategy for California" as stated in the Existing Conditions portions of this section are not directly met by the proposed project. While the priorities listed were established to guide urban growth in the state in the desired fashion, the Strategy also points out that the "development priorities must be pursued with common sense. Obviously California cannot limit its development attention to any one of them at any one time. In following the priorities, care must be taken to avoid driving up the cost of housing" (State of California, 1978). The EastLake project would be located according to the third priority for urban development, outside existing urban and suburban areas. It would provide a mix of housing types, employment opportunities within the community, and new business and industrial opportunities. The Strategy also points out that "with good design, density can be increased without sacrificing comfortable living," recognizing that proper community planning can have positive results.

3.1.3 Mitigation

The conflicts with the Series V growth forecasts are unavoidable if the project is implemented as proposed. Mitigation measures for impacts to air quality, public services, economic development and other factors affected by area growth could serve to lower the level of those impacts, but growth not accounted for in the forecasts will unavoidably impact those planning efforts.

The impacts to the Otay Lakes Park can be partially mitigated by sensitive project design to minimize visual and audial intrusions on the Lakes area. Development at lower densities more compatible with the Park or outside the Park's viewshed would mitigate the anticipated impacts.

Mitigation of impacts associated with the change in land use designations and internal distribution of uses could best be accomplished through alternative site design as discussed in Section V.

The Planned Community District Regulations for EastLake provide the opportunity for mitigating site specific impacts through development controls, and include measures to avoid land use conflicts.

3.1.4 Analysis of Significance

The land use changes proposed by the GPA and General Development Plan would significantly impact the property's agricultural resources and irreversibly change the character of the site. EastLake development would be a substantial change from City policy regarding land use designations for this area, and would vary from density assumptions used for Series V population projections. Additionally, the proposed project would conflict with the County's Regional Growth Management Plan. The proposed uses indicated by the Development Plan would not conflict with surrounding land uses with the exception of the area adjacent to Otay Lakes Park. The project would have significant adverse growth impacts (see Section IV). The mixture of land uses proposed will provide a variety of housing, employment, shopping, recreation, and education opportunities within the community.

3.2 AGRICULTURAL RESOURCES

3.2.1 Existing Conditions

For over 60 years, the current ownership has dry-farmed the EastLake project site. In early days beans as well as grain were produced, but in the last two or three decades only barley has been grown. All of the tillable acreage is cultivated each year, but not all is then planted. The planted acreage varies from year to year from 1000 to 2200 acres with an average over the years of about 1600 acres. Total planted acreage in 1981 totaled 1438 acres.

Adjacent to EastLake to the south and southwest is agricultural land of the Otay Ranch. Agricultural operations associated with Otay Ranch have included dry land farming, beef cattle-ranching, and the production of fresh, market crops including tomatoes, cherry tomatoes, zucchini, crook-necked squashes, and bell peppers (Buckner, 1980).

In the Otay Subregional area which includes the project site, 35 percent (13,695) of all land is in agricultural production with approximately 4000 acres each year planted in row crops (tomatoes, celery or peppers). The principal production areas is Otay Mesa which account for about half of the County's tomato acreage (San Diego County, 1979). The Otay Subregional area contains about 12 percent of County production acreage. The average parcel size in the Subregion is 45.1 acres. Average land cost for irrigated land is 35 percent below the County average but the cost of water is 32 percent above the County average (San Diego County, 1979).

Climate

The project site is located approximately ten miles east of the Pacific Ocean and is situated in the coastal areaclimate, as defined in Climates of San Diego County; Agricultural Relationships, (University of California Agricultural Extension Service, 1970). This areaclimate lies inland from the maritime climate zone. Direct ocean influences diminish as the influence of the land surface increases. Thus the coastal climate has a greater range in temperature and less fog. Conditions in the maritime and coastal zones are especially mild, and allow the production of vegetable crops during months when few, if any sections of the country can produce such crops outside greenhouses.

The nearest weather station to the project area is located in Chula Vista. Mean temperatures at this station range from 44.0°F in December to 72.8°F in September. Chula Vista has a growing season of 350 days (University of California Agricultural Extension Service, 1970). The average annual rainfall (10.32 inches) is below the minimum required by most farm crops, so imported water is used to make up the deficit.

Information about the microclimate on the property is not available. However, it can be inferred that the hilltops do not reach the minimum temperatures of the canyons due to nighttime drainage of cold air to the lower elevations.

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Soils

The following soil analysis is based on the Soil Survey, San Diego Area, California (U.S. Department of Agriculture (USDA) Soil Conservation Service, 1973). The location and classification of each soil type in the project area are shown on Figure 3-3. Table 3-1 indicates the Class and Storie Index ratings of these soils, as well as their rated suitability for the five principal crops grown in San Diego County. A summary of crop suitability by soil type is shown on Table 3-2.

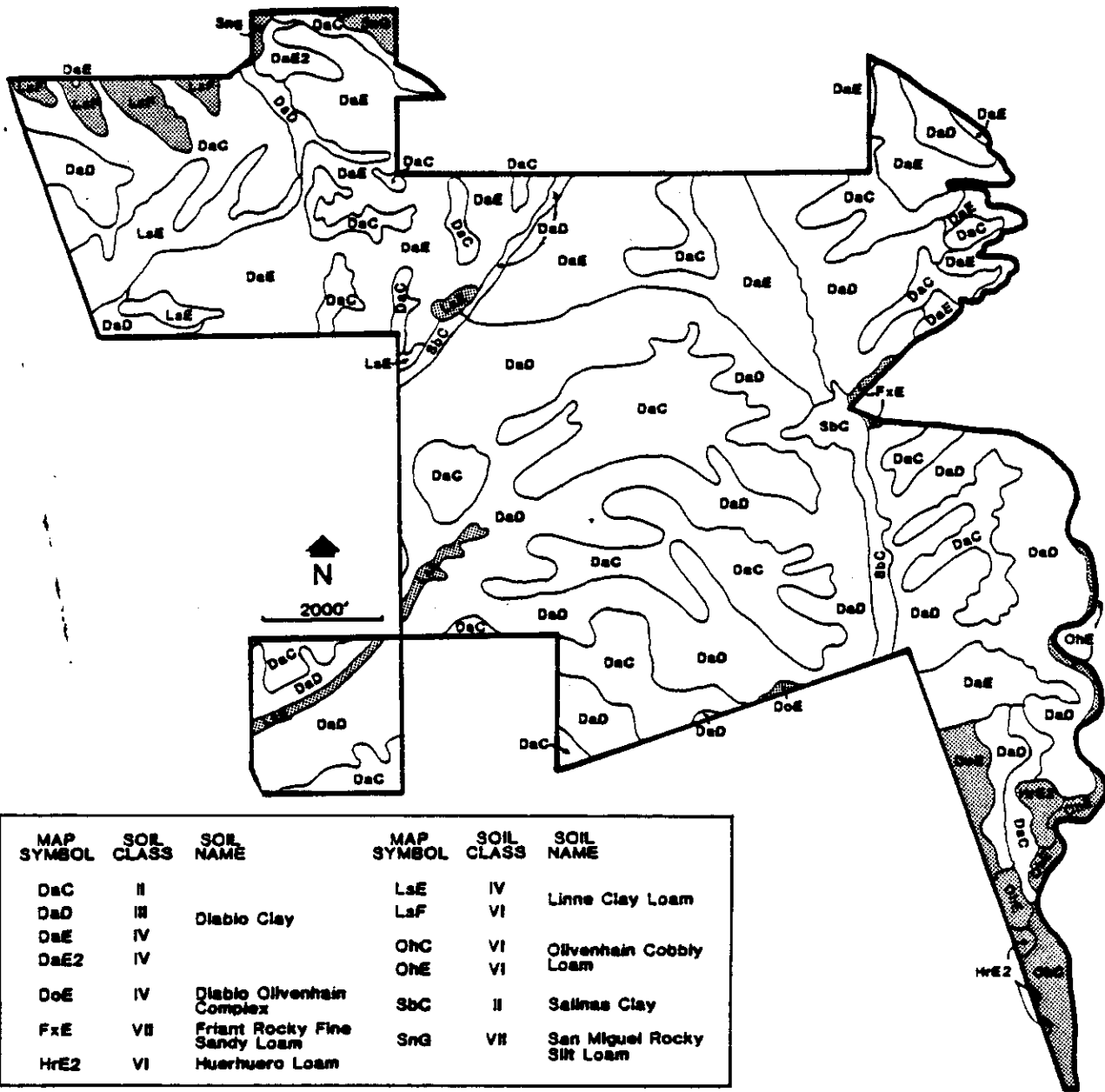
The Class and Storie ratings express the relative suitability of the soil for agricultural purposes. Storie indexes are based solely on agricultural features, with Grade 1 (best case) having few or no limitations for crop use and Grade 6 (worst case) being generally unsuitable for farming. Capability ratings encompass such factors as crop suitability, potential for soil damage, soil conservation, crop management, and land use restriction with Class I (best case) soils having few or no agricultural limitations and Class VIII (worst case) soils having extensive limitations; Class VIII soils may be restricted to recreation, wildlife, or watershed uses. The letter "e" in the capability class number indicates that the main limitation for Diablo clay soils is the risk of erosion unless close growing plant cover is maintained. The soil is best suited for tomatoes and field crops.

The California Land Conservation Act of 1965 (Williamson Act), Government Code Section 512.01, defines "prime" agricultural land as, among other factors:

- All land which qualifies as Class I and Class II in the Soil Conservation Service Land Use Capability Classification;
- Land which qualifies for rating 80 through 100 in the Storie Index Rating.



Only one soil type, encompassing about 61 acres (2 percent) is considered "prime" agricultural land according to this definition. In San Diego County, almost all of the significant acreages of prime soils have been developed with urban uses. However, a wide variety of crops can be grown easily in non-prime soils with the proper climate and water. For this reason, the agricultural potential of soils in San Diego is measured more accurately by the Soil Survey ratings because they take into account the kinds of production which occur in the County. This system rates soils as "good" or "fair" for five principal crops. Those soils which do not meet the "fair" criteria are "not rated."

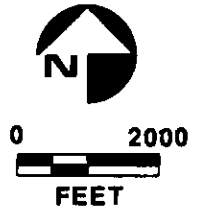
A total of 2820 acres (91.8 percent) of the site contains soils which are rated "good" or "fair" for 1-4 of the 5 major crop types. Of these, a total of 2761 acres (89.8 percent) are rated "good" or "fair" for tomatoes. Only 120 acres (3.9 percent) are suited for citrus; 61 acres (2.0 percent) for truck crops; and 61 acres (2.0 percent) for flowers. None of the soils are suited for avocados. The remaining 253 acres (8.2 percent) are not rated for any of the 5 major crop types.



MAP SYMBOL	SOIL CLASS	SOIL NAME	MAP SYMBOL	SOIL CLASS	SOIL NAME
DaC	II		LaE	IV	Linne Clay Loam
DaD	III	Diablo Clay	LaF	VI	
DaE	IV		OhC	VI	Oilvenhain Cobbly Loam
DaE2	IV		OhE	VI	
DoE	IV	Diablo Oilvenhain Complex	Sbc	II	Salinas Clay
FxE	VII	Friant Rocky Fine Sandy Loam	Sng	VII	San Miguel Rocky Silt Loam
HrE2	VI	Huerhuero Loam			

Source: USGS Soil Conservation Service

	Not Rated For Agriculture
	Rated Good Or Fair For Agriculture



Project Site Soils-Agricultural Constraints

FIGURE 3-3

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Table 3-1

ANALYSIS OF SOILS ON EASTLAKE PROJECT SITE

Soil Name	Map Symbol	Percent Slope	Approximate Acreage	Class	Storie Index	Crop Suitability If Irrigated				
						Avocados	Citrus	Truck Crops	Tomatoes	Flowers
Diablo clay	DaC	2-9	765	Ile-5	42	N	N	N	G	N
Diablo clay	DaD	9-15	1,198	IIIe-5	37	N	N	N	F	N
Diablo clay	DaE	15-30	717	IVE-5	30	N	N	N	F	N
Diablo clay	DaE2	15-30	20	IVE-5	27	N	N	N	F	N
Diablo olivenhain complex	DOE	9-30	31	IVE-5	23	N	N	N	N	N
Friant rocky fine sandy loam	FXe	9-30	6	VIIIs-8	5	N	N	N	N	N
Huerero loam	HrE2	15-30	20	VIe-3	32	N	N	N	N	N
Linne clay loam	LsE	9-30	133	IVE-1	14	N	N	N	N	N
Linne clay loam	LsF	30-50	48	VIe-1	6	N	N	N	N	N
Olivenhain cobbly loam	OhC	2-9	29	VIe-7	29	N	F	N	N	N
Olivenhain cobbly loam	OhE	9-30	30	VIe-7	20	N	F	N	N	N
*Salinas clay loam	SbC	2-9	61	Ile-1	73	N	F	F	G	F
San Miguel Exchequer rocky silt loams	SnG	9-70	15	VIIe-8	8	N	N	N	N	N

*Prime agricultural land under Williamson Act.
Source: USDA, Soil Conservation Service, 1973.

Table 3-2

SUMMARY OF CROP SUITABILITY BY SOIL TYPE¹

Soils	Acrees Rated Good	Acrees Rated Fair	Total Acreage	Total Acreage as Percentage of Site
Prime Agricultural Land	---	---	61	2
Rated for Avocados	0	0	0	0
Rated for Citrus	0	120	120	4
Rated for Truck Crops	0	61	61	2
Rated for Tomatoes	826	1935	2761	90
Rated for Flowers	0	61	61	2
Not Rated for any agricultural crop	---	---	253	8

¹ All acreage calculations are approximate.

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Water Availability

The EastLake project site is in the Otay Water District (OWD) which buys its water from the San Diego County Water Authority (CWA). The site is not currently served with water nor is it in a water improvement district. Water for agricultural use would be available through the OWD (Barber, 1981). Agricultural users pay a discount price for water. To qualify for this discount, a minimum of 5 acres must be in cultivation. Water to produce coastal dependent crops is essential. Supplying the subject property is a problem involving very high costs and policies concerning the competition of water for development and domestic uses vs agricultural use. Coastal dependent crops use about as much water per acre as does residential development at a density of five to six units per acre (Buckner, 1980). An agricultural water system analysis was completed by Lowry & Associates for the applicant and is included in Cadillac Fairview Homes West comments on the Draft EIR.

Economic Considerations

Barley, which is the major crop produced on the EastLake project site, is a low cost, low yield, low return crop (Buckner, 1980). Field crops as a whole are not significant in terms of Countywide agricultural value (San Diego County, Department of Agriculture, 1980). More important is the production of coastal dependent crops. San Diego is able to produce off-season or winter vegetables, tomatoes and nursery and floral crops due to the mild climatic conditions in the maritime and coastal zones. Because the County's climate allows the local harvest to reach markets in the off-season, high prices per unit volume contribute a high value of production per acre. Coastal dependent crop production in San Diego is a significant portion of that grown statewide as well as nationally. In particular, tomatoes represent 40 percent of the statewide production and 15 percent of the national production (Buckner, 1980). The majority of off-season vegetable production is centered around Otay Mesa in the southern portion of the County and near Carlsbad in the north (San Diego County, 1978). The EastLake project site is within the coastal areaclimate, and most of the site contains agriculturally suitable soils. Given water, the site would be suited for production of coastal dependent vegetables, tomatoes, flowers and greenhouse production of ornamental plants (Buckner, 1980).

As noted previously, water costs are a significant factor to be considered in the economics of agriculture. No economic analysis of the site's existing or potential agricultural operations was conducted, and costs can be expected to be a significant determinant in the ultimate decision regarding retention of the site for agricultural uses.

Agricultural Land Use Policies

San Diego County

The County of San Diego has designated the majority of the site for agricultural use (Intensive Agriculture) (see Figure 3-1). Agricultural designations are intended to promote agricultural use as the principal and dominant use.

According to the County (1980) no uses should be permitted within agriculturally designated lands that would have an adverse effect on agricultural production.

The San Diego County General Plan does not contain an Agricultural Element. In its absence, the Board of Supervisors has an agriculture policy to provide guidance for the recommendation of findings of significant effects on agriculture. The policy states that, among other considerations, the following should be given strong weight in the decision of whether a project will have a significant effect on agriculture:

- a. Whether the project is located in areas within the maritime and coastal areaclimates or, to a lesser extent, the transitional areaclimate.
- b. Whether the project is located on land predominately consisting of soils rated "good" or "fair" for one of the five local crop categories for which ratings are assigned in the Soil Survey for San Diego County.
- c. Whether the project is located in an area suitable by reason of climate, soil and lot size for the large-scale production of out-of-season, fresh market vegetables.

City of Chula Vista

The Open Space Element and Conservation Element of the City of Chula Vista deal with the preservation of agricultural land in the absence of an Agricultural Element. The Open Space Element contains the following objective and policy pertaining to agriculture: "To maintain as open space those areas which are necessary to preserve natural resources, such as highly productive agricultural land..." and "highly productive agricultural lands should be retained as open space, through the use of the Land Conservation Act (Williamson Act) and such other means as become available." The Open Space Element designates the area as Interim Open Space/Agricultural Preserve. All such designated areas are shown on the General Plan as Agriculture and Preserve. These areas are currently in agriculture and in reserve for future urban development.

The Conservation Element states that "to the extent possible that agricultural lands can be retained, they will provide shape to the urban form and permanent breathing space as part of the City's open space system while contributing to the economy of the area." According to the Conservation Element, the City has as an objective to preserve highly productive agricultural lands for the production of food and fiber. Policies relating to agriculture are:

- a. The County of San Diego and local property owners are encouraged to utilize the Land Conservation Act (Williamson Act) as an aid in retaining agricultural lands in productivity.
- b. The legislature and local legislative representatives are urged to support the enactment of new State legislation to provide greater incentive to retain in agricultural use those agricultural lands which are threatened by urban development.

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- c. Buffer zones shall be provided to reduce the conflicts between agricultural and urban uses.

LAFCO

The Local Agency Formation Commission (LAFCO) is required by law to determine whether agricultural preserves, prime agricultural or other open space lands would be adversely affected if annexation were approved. LAFCO uses a definition of Prime Agricultural land which includes any one of the five Williamson Act criteria. LAFCO has an Agricultural Lands Preservation Policy which it uses in reviewing annexation proposals that may lead to the conversion of agricultural land to urban uses. This policy outlines certain criteria for determining whether the proposal will adversely affect agriculture, or promote inefficient "leapfrog" growth. These criteria include:

- a. The agricultural significance of the proposal area relative to other agricultural lands in the region (soil, climate, and water factors);
- b. The use value of the proposal area and surrounding parcels;
- c. Determination as to whether any of the proposal area is designated for agricultural preservation by adopted local plans, including Local Coastal Plans and the County Agricultural Element;
- d. Determination of:
 - 1. Whether public facilities would be extended through or adjacent to any other agricultural lands to provide services to the development anticipated on the proposal property.
 - 2. Whether the proposal area is adjacent to or surrounded by existing urban or residential development.
 - 3. Whether surrounding parcels may be expected to develop to urban uses within the next 5 years.
 - 4. Whether natural or man-made barriers would serve to buffer the proposal area from existing urban uses.

3.2.2 Impacts

The following analysis of impacts evaluates the proposed project's effect on agricultural resources onsite. Additional information regarding those resources has been provided by Cadillac Fairview Homes West in their comments on the Draft EIR. The reader is referred to Volume 2 for the applicant's discussion.

General Plan Amendment Impacts

The General Plan Amendment as proposed would allow the conversion of land from agricultural to urban uses (Planned Community Development). This conversion is a significant impact in terms of the loss of potential production of

coastal-dependent crops. Changes in the land use designation in the General Plan as proposed will result in the loss of approximately 2820 acres of available, agriculturally suitable land. The major portion of this acreage is currently designated Agriculture and Reserve in the Chula Vista General Plan.

The actual loss of barley production is not considered to be significant because barley is a low cost, low yield, low return crop which is not highly valued in terms of the crop itself or in terms of countywide agricultural value. Production of barley is not dependent on or confined to coastal and near-coastal lands. More important is the loss of resources for the potential production of coastal-dependent crops such as vegetables. The majority of the site, given water, would be well suited for the production of coastal-dependent vegetables due to its location in the coastal area climate and the suitability of the soils.

Continued conversion of agricultural lands to urban development in the maritime and coastal area climates will eventually result in the loss of ability to produce and market off-season fresh tomatoes, vegetables and field grown floral crops, most of which have state and national importance. Of equal or more concern, is the fact that the maritime and coastal area climates constitute one of the few areas in California and the United States where such off-season products are grown. San Diego vegetables are grown and marketed at a time of year when they are not likely to be supplied in appreciable volumes from other areas in the nation. Only maritime and coastal climate zones have the conditions needed for this "off-season" production. (Buckner, 1980)

An estimated 62,000 acres of non-urbanized Class I, II, III and IV soils of more than 100 acres in size remain in the coastal areas of the County. Of these, 28,000 acres are in the South County. Approximately 49,000 acres (79 percent) of the County's agricultural land suitable for coastal-dependent crops is not used for coastal-dependent crops at this time (Buckner, 1980). Suitable agricultural land on the project site represents 4.5 percent of available coastal-dependent agricultural land in the County and 10 percent of that in the South County. Therefore, conversion of agricultural land as a result of project development constitutes an incremental, irreversible loss of a limited agricultural resource (land) suitable for coastal-dependent agriculture.

The viability of agriculture on Otay Mesa, an area of similar climate and soil conditions to that at the project site, is an unresolved issue. A study prepared for the Otay Water District (1976) concluded that agriculture is a transitory land use on the mesa. According to that report, this transition is being encouraged and accelerated by several factors including:

- rising demand for low cost residential land
- increasing labor costs in comparison with competing production areas
- increasing water costs of greater magnitude than experienced by other production areas
- the unwillingness of landowners to continue subvention of existing agricultural enterprises.

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Alternately, a San Diego County report written for the EIR on the Otay Mesa General Plan Amendment (San Diego County, 1975) concludes that high intensity agriculture appears to be a viable operation on Otay Mesa. This is attributable to the climatic conditions on Otay Mesa which make it possible to grow and market vegetable crops out of season and so obtain premium prices.

A major obstacle to future production of coastal-dependent agriculture on the project site is the need for water. Water, which is essential for the production of coastal-dependent crops would be available to the site for agricultural use through the OWD. However, the cost of water from the OWD is relatively high, about 32 percent higher than the County average (San Diego County, 1978). In addition to the high price, there is competition for water between domestic use and agricultural use. Coastal-dependent crops require about as much water per acre as does five to six dwelling units per acre (Buckner, 1980).

Changes in the land use designation for the project site will have a secondary effect on area agriculture, particularly Otay Ranch. Urbanizing pressures may stimulate the premature conversion of surrounding agricultural land through the appreciation of land value and extension of public services. Since the area which would be affected is also coastal-dependent agricultural lands, project development would have a cumulative effect on the loss of this type of agriculture. Information about the future plans for Otay Ranch is not presently available so it is not possible to accurately analyze the indirect effects of conversion to urban land uses on agriculture on that property.

It is a policy of the City of Chula Vista to preserve highly productive agricultural land. This policy is supported by designating those areas currently in agriculture as Agriculture and Reserve in the Land Use Element and Interim Open Space/Agricultural Preserve in the Open Space Element. This designation is intended to identify those areas currently in agriculture which are in reserve for future urban development. Change in the land use designation according to the General Plan Amendment would not directly conflict with the City's agricultural policies since the property is not currently "highly productive." However, the agricultural land is of value as a potentially productive resource.

The County of San Diego does not have an Agricultural Element but it has a specific policy designed to provide guidance for the recommendation of findings of significant effects on agriculture. The project site meets three of these criteria (it is located within the coastal area climate, consists predominately of soils rated "good" or "fair" for agriculture, and is located within an area suitable for large-scale production of out-of-season fresh market vegetables). Conversion of the site to non-agricultural use would be considered a significant impact according to that policy.

Annexation Impacts

The Local Agency Formation Commission reviews annexation proposals to determine whether agricultural resources will be adversely affected by the annexation. The following is a discussion of the proposed EastLake project as it relates to the criteria for review listed under existing conditions. LAFCO

will make a determination of whether this project complies with their Agricultural Lands Preservation Policy when it considers the annexation proposal.

- a. Agricultural significance of the site is based on soil and climatic factors which make it of potential value for the production of coastal dependent crops. Water availability factors currently limit this potential.
- b. The City of Chula Vista designates the project site as Interim Agriculture/Agricultural Preserve.
- c. The project has a potential growth-inducing effect on surrounding agricultural lands. Public facilities would be extended adjacent to other agricultural lands to provide services to the development. See Section VIII for further discussion on growth-inducing effects.

Annexation of the subject property to the City of Chula Vista will not directly affect agricultural resources. However, since annexation will indirectly lead to project development and ultimately conversion of agricultural land to urban uses, it will have a significant impact on agricultural resources. Annexation to the City may also have a growth-inducing effect on surrounding agricultural areas (see Section IV for further discussion).

Planned Community Development Impacts

Implementation of the General Development Plan, will develop the site with uses which are incompatible with the long-term use of the land for agricultural production. As discussed above this is considered a significant environmental impact.

According to the general development schedule the project will be developed in 3 phases approximately 5-6 years apart. Such a schedule will allow the continuation of agricultural production on portions of the site on a short-term basis until the entire site is converted to urban land uses.

3.2.3 Mitigation

Mitigation of the impacts to agricultural resources can only be achieved by retaining the existing agricultural designations or alternate project design which would retain portions of the property for agricultural use (see Section V).

3.2.4 Analysis of Significance

The loss of an agricultural resource for the potential production of coastal-dependent crops as a result of project development is considered a significant, unmitigable adverse impact.

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3.3 TRANSPORTATION AND CIRCULATION

3.3.1 Existing Conditions

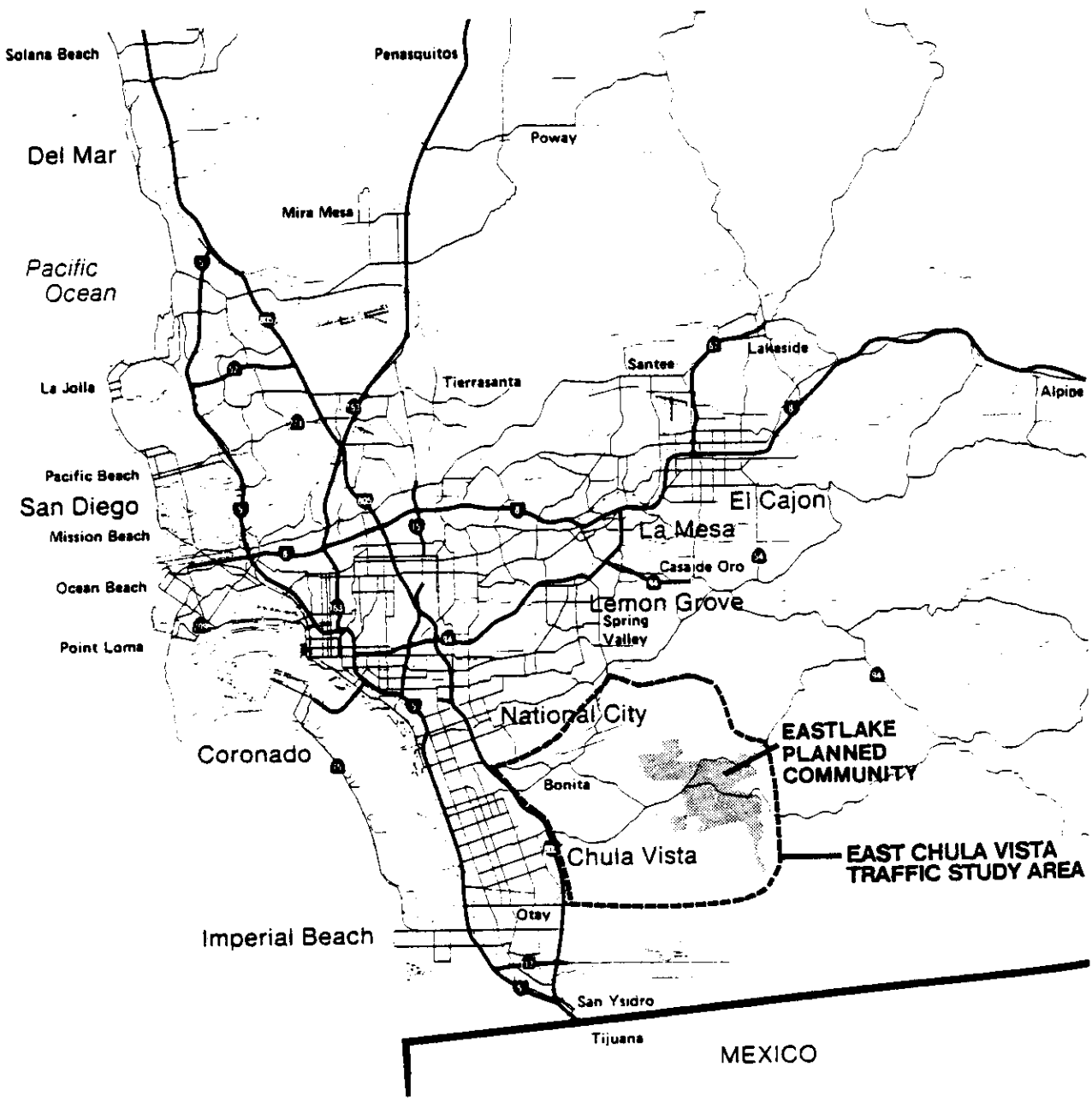
An extensive traffic analysis was conducted for the EastLake development proposal. To ensure that all potential impacts to the regional and local circulation system would be adequately considered, the traffic systems analysis examined a traffic study area (TSA) which is bounded by SR 54 on the north, I-805 on the west, Otay Valley on the south, and Otay Lakes to the east (see Figure 3-4). Anticipated and projected land uses as identified in the City and County General Plans provided the foundation of the study. The overall results of the traffic study are provided in Appendix C.

SR 54 is currently a four-lane divided expressway which carries between 27,500 and 19,700 Average Daily Trips (ADT) between I-805 east to Worthington Street. I-805 is an eight-lane divided freeway which carries from 42,000 ADT north of Otay Valley Road to 81,000 ADT north of SR 54. Telegraph Canyon Road varies from a six lane divided road east of I-805 to two lanes west of Otay Lakes Road and carries from 25,700 ADT near I-805 to 11,800 ADT west of Otay Lakes Road. Otay Lakes Road varies from four to two lanes and carries from 15,600 ADT south of Bonita Road to 3500 ADT north of Telegraph Canyon Road (see Figure 3-5). Currently, Otay Lakes Road extends north and east from its intersection with Telegraph Canyon Road. Future roadway configurations indicate that Otay Lakes Road will extend south from the present intersection with Telegraph Canyon Road. To avoid confusion in this report, the existing portion of Otay Lakes Road which extends from Telegraph Canyon Road east will be referred to as "Easterly Otay Lakes Road," and the future extension south will be called "Southerly Otay Lakes Road." The portion to the north of Telegraph Canyon Road will continue to be referenced as Otay Lakes Road.

The project area is primarily served by Telegraph Canyon Road, Easterly Otay Lakes Road, Bonita Road and its extension along San Miguel Road, Otay Lakes Road, and Proctor Valley Road. Bonita Road is a four-lane divided roadway which currently carries up to 27,000 ADT between I-805 and Otay Lakes Road. Bonita Road carries 17,700 ADT east of Otay Lakes Road and 7800 ADT across the Bonita Road Bridge. Otay Lakes Road between Bonita and Telegraph Canyon Roads is primarily a four-lane road, and carries from 15,600 ADT south of Bonita Road and 9600 ADT north of Telegraph Canyon Road. Proctor Valley Road is a two-lane unpaved road which carries 300 ADT.

Major traffic generators within the study area include: two hospitals, the Kaiser Health Program Medical Center on Bonita Road and the Community Hospital south of Telegraph Canyon Road, two shopping centers, one regional located at Route 54 and I-805, and a second community-level planned along H Street near I-805. A number of other neighborhood shopping centers exist and are planned for the area.

The City of Chula Vista Circulation Plan (Figure 3-6) calls for the following improvements in the project area. In the east-west direction, East H and East J Streets and Orange Avenue are planned for easterly extensions as required by development, and State Route 54 is to be upgraded to freeway standards.




NO SCALE

East Chula Vista Traffic Study Area

**FIGURE
3-4**

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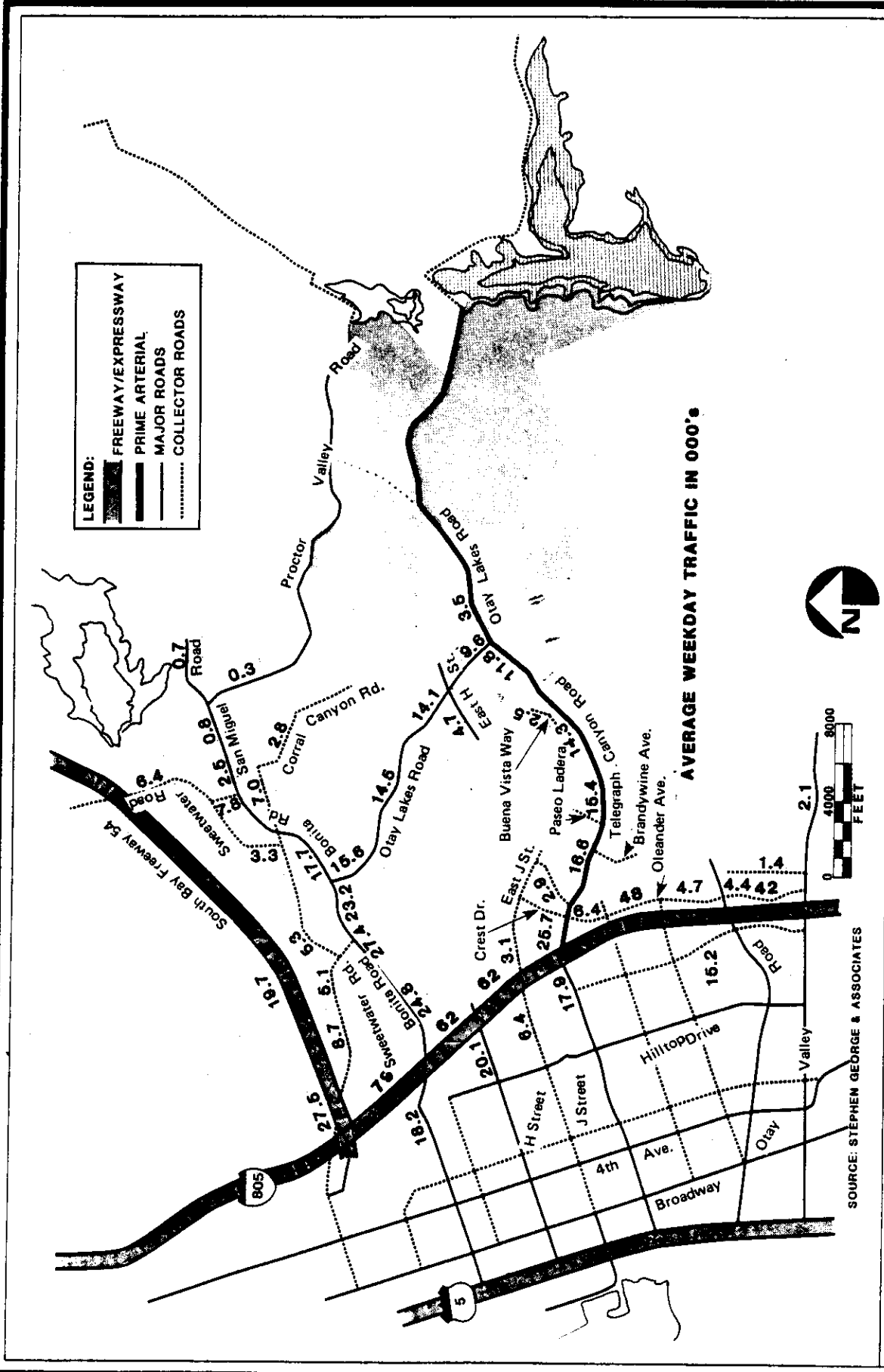


FIGURE 3-5

1980 Traffic Counts Within the East Chula Vista Traffic Study Area

In the north-south direction, roads planned for extension are Brandywine Avenue, Corral Canyon Road, Otay Lakes Road southerly of Telegraph Canyon Road, and a Major Road located in the Route 125 corridor (which was deleted from the Regional Transportation Plan).

The County Circulation Plan (Figure 3-7) which is similar to the Circulation Plan of the City, also provides for the extension of the three east-west roadways to and through the EastLake Planned Community, including East H Street, Easterly Otay Lakes Road, and Orange Avenue, and two north-south roadway improvements identified as (a) Freeway 125 in the County and City of San Diego and (b) the southerly extension of Southerly Otay Lakes Road as a Major Road, south of Telegraph Canyon Road.

Currently the traffic circulation system in the study area has limited capacity to accommodate new developments without additional road widenings and/or additional facilities as specified in the adopted circulation plan. Bonita Road between I-805 and Otay Lakes Road is built to standards for a four-lane divided Major Road. The remaining roadways in the project vicinity are not currently built to their designated standards. Any large-scale development or large traffic generator can easily impact the existing circulation system.

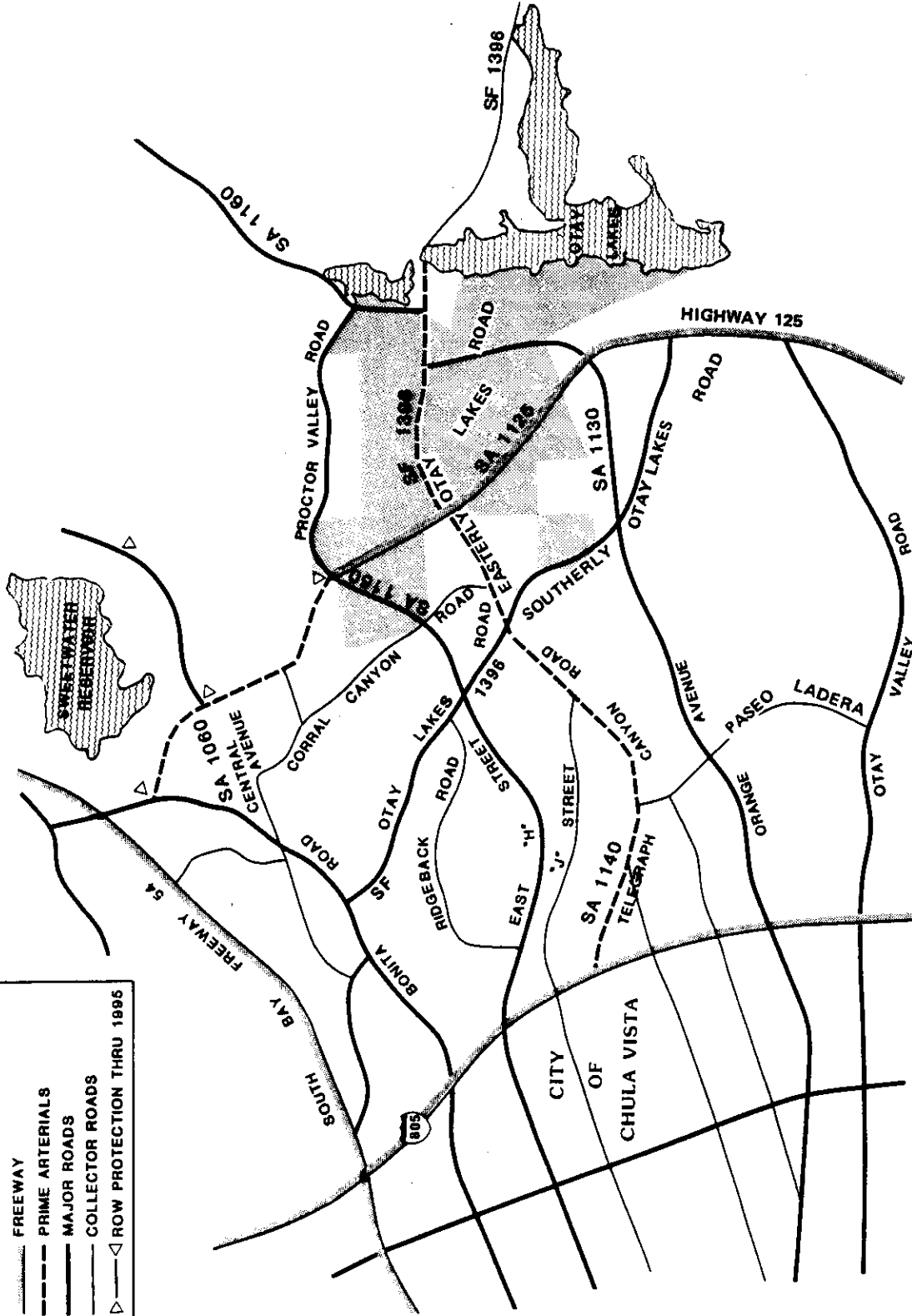
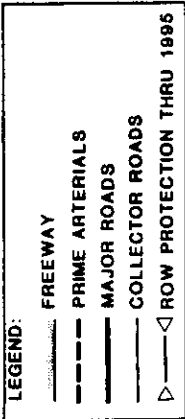
Existing Public Transit Services

EastLake is located in the east Chula Vista transit service area. East Chula Vista is currently served by three Chula Vista Transit (CVT) routes. CVT Route 703 services the residential area east of I-805 and south of East J Street, and the Community Hospital of Chula Vista. CVT Route 704 serves the residential area between East Naples Street and Telegraph Canyon Road, Southwestern College, and the Southwestern College Estates residential area. Both of these routes provide connections to central Chula Vista and the Rohr Industries. Bike rack service is also provided on Route 704.

CVT Route 705 serves the Bonita area, operating along Otay Lakes Road, Bonita Road, Sweetwater Road, and Bonita Mesa Road. This route serves Southwestern College, Bonita Vista High School, and the Bonita Vista Junior High School.

CVT Route 704 operates on hourly headways in each direction between 5:25 a.m. and 9:51 p.m., Monday through Saturday, while Route 705 operates on hourly headways in each direction between 6:00 a.m. and 6:49 p.m., Monday through Saturday. Route 703 operates on hourly headways between 5:30 a.m. and 7:57 p.m., Monday to Friday.

San Diego Transit Corporation (SDTC) bus Routes 29 and 32 (arterial bus routes) currently serve the central Chula Vista area. The Metropolitan Transit Development Board (MTDB) has recently completed the construction of a Light Rail Transit (LRT) line parallel to I-5 through Chula Vista utilizing the existing facilities of the San Diego and Arizona Eastern Railway. LRT service operates between downtown San Diego and the international border at San Ysidro, with a station stop at H Street in Chula Vista. The H Street LRT station is directly served by CVT Routes 703 and 704.



**FIGURE
3-7**

Circulation Element of San Diego County General Plan

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Route 54 and I-805 north of Otay Valley Road have been identified as high level-of-service corridors for the 1995 Transit Corridor Plan (SANDAG, 1980a). Priority treatment for transit vehicles, including bus stop facilities on freeways, ramp metered bypass lanes, and exclusive bus lanes are components of the regional long-range implementation strategy to provide higher transit speeds to attract higher public transit ridership.

An existing Park and Ride lot for carpooling is located at the interchange of Sweetwater Road and I-805. An additional Park and Ride location is planned for I-805 and East H Street, to serve carpool and express bus services.

Chula Vista Transit operates three lift-equipped vans which provide demand responsive service for the handicapped and elderly in the area.

3.3.2 Impacts

The transportation and circulation traffic study for the proposed project was conducted to present a comprehensive, composite traffic impact assessment with and without the project traffic. The planning process included:

- Land use measurements and assumption about future development
- Trip generation analysis
- Traffic forecast modeling for the target year 2000
- Computer traffic assignments
- An analysis of traffic loading on two alternate networks
- Assessment of traffic impacts and their implications
- Summary of critical mitigating measures
- Preparation of a traffic impact study report.

The following analysis presents the highlights and principal findings of the traffic study (Appendix C). Cadillac Fairview Homes West has prepared supplemental statements in their response to the Draft EIR relating to transportation and circulation impact evaluation. In addition, proposed mitigation measures are detailed in their comments (see Volume 2 of Final EIR).

Traffic system analyses were conducted for two alternate networks. The first (Network 1) assumed full development as outlined in the City and County General Plans (including the roadways identified in the EastLake plan). The second analysis (Network 2) assumed a limited network. Due to anticipated funding difficulties or other reasons, several links of Network 1 may not be improved by the year 2000. These links are:

Route 125 (as a Prime Arterial)

- between SR 54 and San Miguel Road
- between Orange Avenue and the Otay River

Orange Avenue

- between Paseo Ladera and SR 125

Otay Valley Road

- between Paseo Ladera and SR 125

Otay Lakes Road (extension to the south)

- south of Telegraph Canyon Road to SR 125

Regional Analysis: Development of EastLake and other anticipated growth in the traffic study area would generate the traffic volumes on each network illustrated in Figure 3-8 and Figure 3-9. These figures also designate the required improvement standards (i.e., six lanes, four lanes, or two lanes) for each segment of the network. A comparison of the two figures demonstrates that under the worst-case condition (Network 2 in Figure 3-9) significantly greater offsite (that is, outside of EastLake) circulation improvements would be required to adequately accommodate traffic. For example, Telegraph Canyon Road would need to be constructed as a six-lane roadway with Network 2, compared to a four-lane roadway with Network 1.

The extent to which EastLake will contribute traffic to individual roadway segments is shown in Figures 3-10 and 3-11 for Networks 1 and 2, respectively. The figures provide clear definition of off-site impacts, and thereby identify a reasonable and realistic basis for assigning responsibility for impact mitigation. The major differences in impact are evident on SR 125, East H Street, and Telegraph Canyon Road. Under the "worst-case" condition (Network 2), EastLake's projected traffic on these roadways is up to 30 percent higher than on Network 1. Under both of the two networks, several "collector roads" as presently designated in City or County General Plans will need to be upgraded to "major arterials" to accommodate total traffic demands from project and non-project traffic. These roads are located within the County portion of the traffic study area, particularly in the Bonita area and the area south of East H Street. In addition, the analysis indicates a need to redesignate Telegraph Canyon Road as "prime arterial" for its entire length.

Intersection Capacity Analysis: An examination of peak hour traffic flows at several key intersections was conducted to determine the projected "Level of Service" (LOS) within the traffic study area. LOS "C" is a desirable standard to which roads are normally free-flowing and LOS "F" is the lowest level of service possible. Of the eleven intersections analyzed, eight are projected to operate at LOS "D" or lower in Networks 1 and 2. These are:

LOS	Network 1	Network 2
D:	SR 125/Proctor Valley Road Telegraph Canyon Rd/Otay Lakes Rd. Telegraph Canyon Rd./Paseo Ladera Bonita Road/Otay Lakes Road	East H Street/Buena Vista Way Telegraph Canyon Rd./Otay Lakes Rd. Telegraph Canyon Rd./Paseo del Rey
E:	East H Street/Otay Lakes Road Telegraph Canyon Road/Paseo del Rey I-805/Bonita Road Southbound Ramps I-805/East H Street Northbound Ramps	East H Street/Otay Lakes Road Bonita Road/Otay Lakes Road
F:	SR 125/Sweetwater Road SR 125/San Miguel Road I-805/Bonita Road Northbound Ramps I-805/Telegraph Canyon Road Northbound Ramps	Bonita Road/San Miguel Road Telegraph Canyon Road/Paseo Ladera Bonita Road/Willow Street

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**EAST CHULA VISTA
TRAFFIC STUDY
NETWORK 1**

**TRAFFIC LANES
and
VOLUMES**

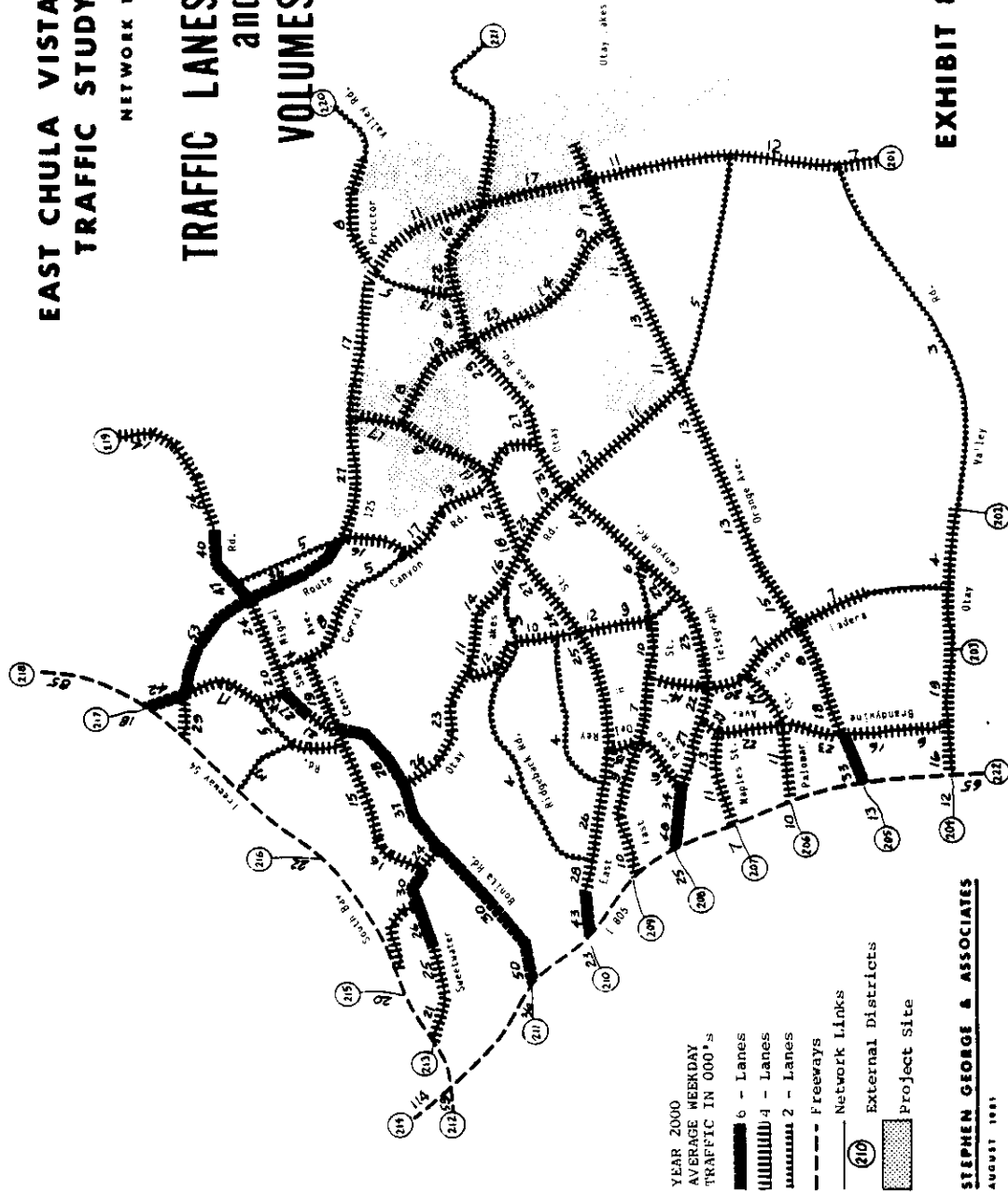


EXHIBIT 8

**FIGURE
3-8**

Year 2000 Traffic Lanes and Volumes- Network 1

**EAST CHULA VISTA
TRAFFIC STUDY
ALTERNATE NETWORK 2**

**TRAFFIC LANES
and
VOLUMES**

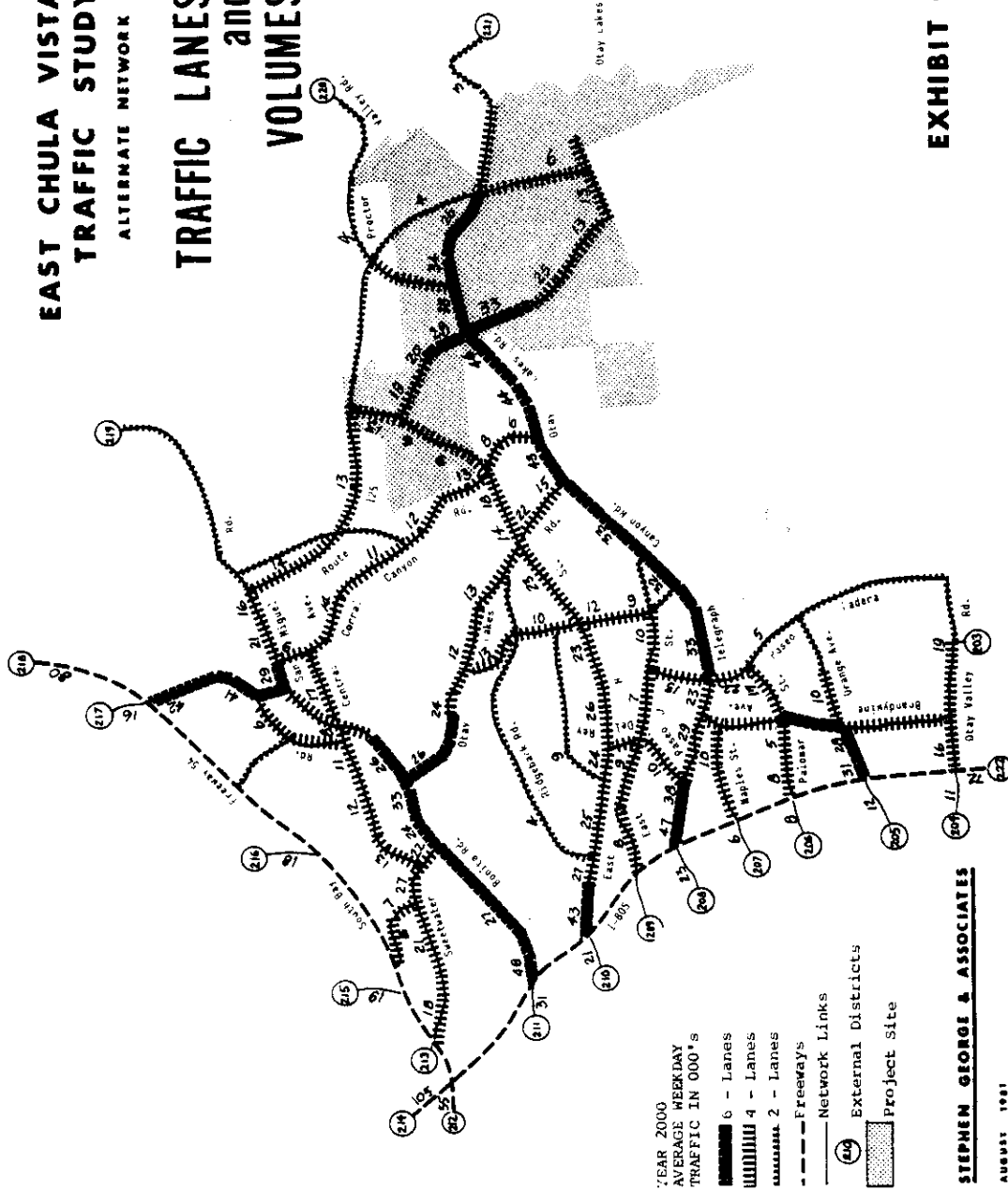


EXHIBIT 9

**FIGURE
3-9**

Year 2000 Traffic Lanes and Volumes- Network 2

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The impacts to each of these intersections are considered significant. While development of EastLake would not be solely responsible for these impacts, the impact on a cumulative basis (considering other developments in the TSA) is of concern. EastLake project traffic is expected to constitute from 16 to 18 percent of the total traffic within the TSA.

3.3.3 Mitigation

A phased development schedule for the project to condition discrete components of the community on concurrent improvements in the regional circulation system should be prepared. At the City's discretion some of these improvements should be the responsibility of the developer, while other property owners and various public agencies will be obligated to construct other links. The major road improvements which will be needed include:

- SR 125 between the project and SR 54 should be constructed as a four-lane prime arterial; eventual widening to six lanes with selected grade separations may be required
- Otay Lakes Road should be extended south of Telegraph Canyon Road to an intersection with Orange Avenue; Orange Avenue should be extended from that point to the EastLake property.
- Several roads (see Appendix C) presently designated as collectors will have to be reclassified as major roads, including: Sweetwater Road (SR 54 - Bonita), Bonita Bridge, Sweetwater Road (SR 54 - Bonita Bridge), Corral Canyon Road, and Brandywine Avenue. An appropriate assignment of responsibility for improvement cost will have to be made.
- Bonita Road between I-805 and the Bonita Bridge will need to be widened to a six-lane divided major arterial.

With preparation of a project development phasing program which is tied to needed circulation improvements EastLake can be implemented in an orderly, staged fashion to achieve the objectives of the project and avoid future traffic circulation problems. A more detailed analysis of those intersections anticipated to operate below LOS "C" will be required prior to development of the first sectional Planning Area (SPA). Table 3-2A indicates the major roadway segment improvements and responsibility for funding those improvements which are necessary with development of EastLake as proposed. Tables T-1 and T-2 in the applicant's comments on the Draft EIR indicate their evaluation of cumulative traffic impacts on Networks 1 and 2. These are listed by roadway segment of traffic demand volume (ADT), with and without the project, and required improvement standards.

Additional mitigation will be provided as extension of bus service is achieved. Ride sharing programs and the proposed bicycle circulation system will provide further increments of mitigation by reducing total vehicle trips. As noted previously, a discussion of mitigation measures is included in the applicant's comments on the Draft EIR. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, T-1 through T-12.

Table 3-2A

EASTLAKE - TENTATIVE STREET REQUIREMENTS

<u>Street</u>	<u>Location</u>	<u>Responsibility</u>	<u>Improvement</u>
Transportation Corridor	Onsite	CFHW	4-Divided plus grading and right-of-way for future freeway plus buffer strips on each side to create a 400-foot total width reservation. 500-foot radius reserved at intersections with Otay Lakes Road and Orange Avenue
Transportation Corridor	Project to San Miguel Road	CFHW+ Reimbursement	4-Divided
Transportation Corridor	San Miguel Road to Sweetwater Road	Assessment District	4 or 6-Divided (Study)
Transportation Corridor	Sweetwater Road to SR 54	Assessment District	4 or 6-Divided (Study)
Telegraph Canyon Road	Onsite	CFHW	4 or 6-Divided (Study)
Telegraph Canyon Road	Project to Paseo del Rey	CFHW+ Reimbursement	6-Divided
Rutgers Avenue	East H Street south to existing improvements	CFHW+ Reimbursement	4-Undivided
East H Street	Onsite	CFHW	4-Divided
East H Street	Project to Rutgers Avenue	CFHW	4-Divided
East H Street	Rutgers Avenue to Otay Lakes Road	CFHW	4-Divided (2-committed)
East H Street	Between Buena Vista Way and Paseo Ranchero to the Watt Development	CHFHW+ Reimbursement	2 Lanes or 4-Divided (with 2-committed)

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3.3.4 Analysis of Significance

Traffic impacts on roadways outside of the EastLake project site would result if adequate improvements are not implemented. The contribution of traffic from the project to traffic flows represents from 16 to 18 percent of total traffic within the TSA. On a cumulative basis, project traffic combined with non-project traffic creates substantial circulation demands and will require several critical improvements in the overall circulation system of the TSA to avoid significant impacts.

3.4 SEWER SERVICES

Existing Conditions

The project site is within the Otay Water District, which operates a 1.3 mgd capacity treatment plant in Jamacha Junction to treat and dispose of sewage from areas within the district (Barber, 1981). At present there are no sewer facilities on the property; the closest existing line runs beneath Telegraph Canyon Road to within 3000 feet of the west boundary of the project. This trunk line part of the City of Chula Vista's sewer system, has an average flow of approximately 3.2 million gallons per day (mgd) at 3/4 capacity. It is sized to handle projected flow from the Telegraph Canyon tributary area (Harshman, 1981).

Chula Vista holds 21.1 mgd capacity rights in the San Diego Metropolitan Sewer System (METRO). The sale of 4.0 mgd capacity to the Sweetwater Sanitation District has been authorized by the City Council resulting in a total "available" capacity of 17.1 mgd. Current usage is 8.0 mgd, with 9.1 mgd capacity available for future growth within the Chula Vista Planning Area (Harshman, 1981).

The METRO System treats its sewage at the Point Loma Sewage Treatment Plant, which is presently operating beyond its 120 mgd capacity. The City of San Diego has filed an application with the United States Environmental Protection Agency (EPA) for a secondary treatment waiver at the Point Loma plant. Waiver of secondary treatment would allow the Point Loma plant to expand its primary treatment facilities (to 185 mgd) in order to handle present and projected flows up to the year 2005. The EPA has made a preliminary decision approving the City's request to waiver secondary treatment; before final approval the decision must go before the public. Assuming final approval the City must obtain funding (approximately \$50 million) to expand primary treatment facilities at the Point Loma Plant. The City hopes to obtain funding through the Federal Clean Water Act. If Federal monies are available, it will take at least 3 years before additional primary facilities become operational. However, Federal funds may not be available for the expansion of treatment facilities due to inflation and budgetary limitations currently being experienced by the Federal Government. If Federal funding were not available, it is uncertain how long it would take to expand primary treatment facilities at the Point Loma Plant (Mueller, 1981).

If a waiver is granted, additional contract allocations may be made available to METRO consumers. The City of Chula Vista, as well as other agency

members, would then have increased sewerage capacities available in order to provide adequate services to developing and expanding areas within its service area.

The Domestic Sewage System Master Plan Study (Lowry and Associates, 1980) identifies five natural drainage basins with the project. These basins are tributary to Proctor Valley Road, Long Canyon, Telegraph Canyon, Poggi Canyon, and Salt Creek (see Figure 3-12).

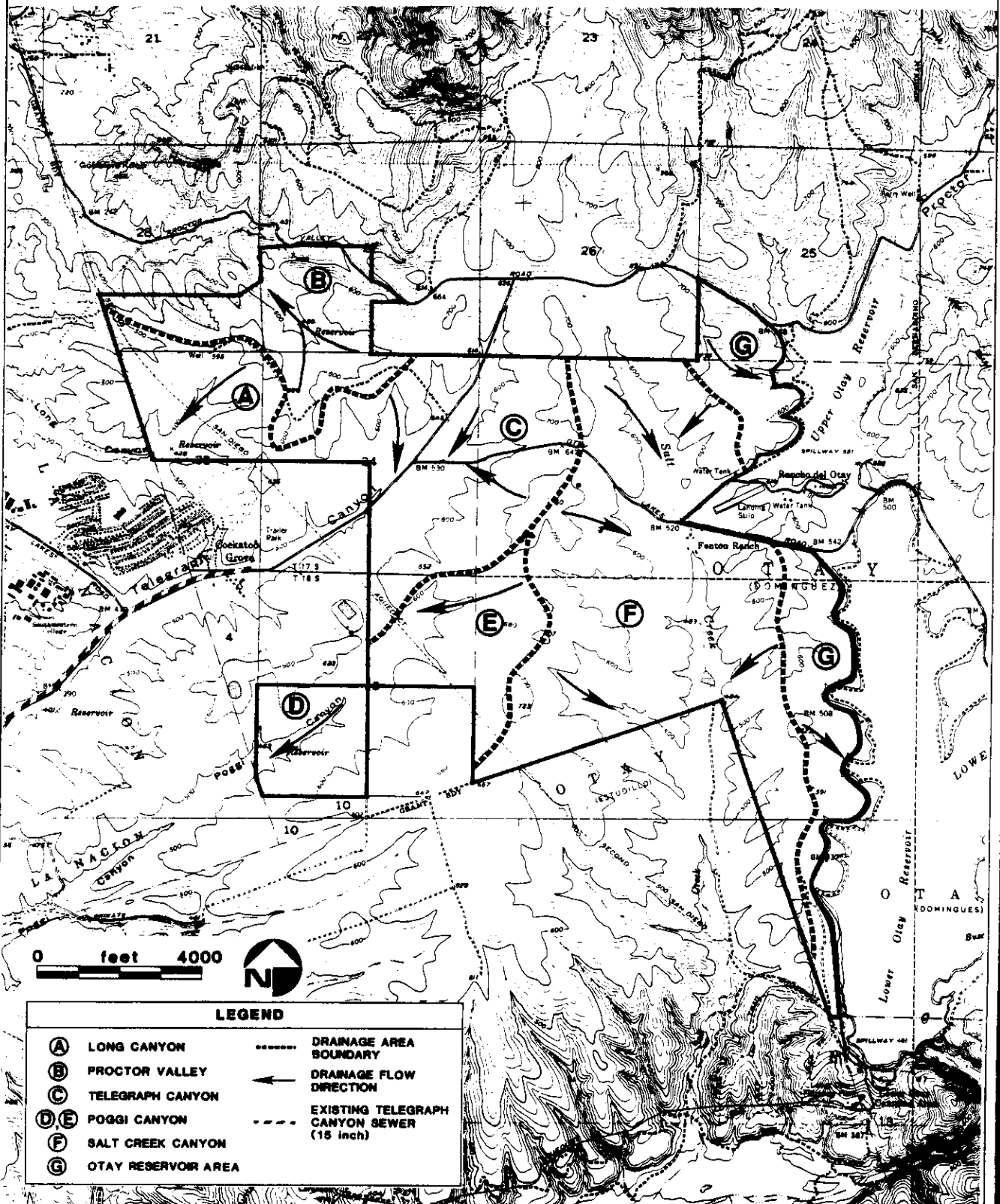
3.4.2 Impacts

Under the land use designations of the County Regional Growth Management Plan (RGMP) (San Diego County, 1978) and the General Plan of the City of Chula Vista, development of the project site would be at a low density compatible with surrounding agricultural land. The project area is outside of the Urban Limit Line established by the RGMP, beyond which no urban development should occur during the life of the plan. No urban services are to be extended to the site under its present designations (RGMP, 1978). The project is within the Otay Water District (OWD), but the District has limited facilities for sewage collection and treatment, as previously mentioned. Lack of availability of sewer service under present land use designations would serve to keep the density of any future development low.

If the proposed General Plan amendment and prezone are approved, the level of the effect on the current sewer situation in Chula Vista and the METRO system would be significantly higher than that anticipated by the current General Plan, since the facilities have been designed to service the General Plan land uses. If the project site is zoned as proposed for the EastLake project and annexed to the City, construction of sewer facilities would be required to serve the development. Sewage output from a planned community on 3100 acres would obviously be substantially higher than from the same acreage developed under low density designations. EastLake represents approximately 20 percent of the undeveloped land in the Chula Vista Planning Area (15,000 acres). If the project were fully sewered through METRO, it would use about 32 percent of the capacity for future growth. Any use of sewage reclamation could reduce this total demand.

If the development were approved without being annexed to the City of Chula Vista, the sole sewerage agency would be the Otay Water District (OWD). As previously stated, OWD's sewage treatment facilities are limited to one small plant operating in a distant area of the district from EastLake. The OWD does not own capacity in the METRO system; therefore, sewage collection, treatment and disposal facilities for the proposed development would have to be self-contained within the district. The task of providing those facilities to handle an estimated 3.2 mgd of sewage from EastLake could adversely affect the OWD if improvements were not funded and provided by the developer. Development of the site under current land use designations would have the potential for a substantially smaller effect on OWD, since development would be restricted according to the availability of sewage treatment facilities or the limits of septic tank systems.

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SOURCE: Larry Seeman Associates

Sewage Tributary Areas

FIGURE 3-12

The first phase of development in EastLake would occur in the Telegraph Canyon, Long Canyon, and Proctor Valley drainage basins. The existing trunk line in Telegraph Canyon was sized to handle projected flow from the entire drainage basin, at an average flow rate of 1050 gallons per day per acre of the basin (Lowry, 1980). The EastLake development would encompass approximately 513 acres of the Telegraph Canyon basin and would be entitled to 0.54 mgd in the trunk sewer line. The Lowry Report estimates that 1.0 mgd of sewage would be generated by development in the basin, 85 percent more than EastLake's share based on its acreage in the basin. On a short-term basis, since the areas downstream of EastLake in the drainage basin are not proposed for development, the applicant has requested that the City of Chula Vista allow the project additional capacity in the trunk line. The acceptance of excess sewage from the subject community on a short-term basis would be based on availability of adequate capacity during that short-term. Also an agreement between the City and the proponent would be required for installation of permanent facilities when adequate capacity is no longer available to handle the excess sewage. No long-term commitment permitting EastLake to exceed its share of the lines capacity would be forthcoming from the City, since future development elsewhere in the basin is likely, and adequate capacity to serve that development must be available when needed (Harshman, 1981). The extension of the existing line would be considered growth-inducing, thereby possibly hastening the additional development that would require the capacity in the Telegraph Canyon trunk line which the EastLake development proposes to use.

Development in Long Canyon would generate an estimated flow of 0.08 mgd. The Long Canyon basin drains west and north toward facilities of the Spring Valley Sanitation District (SVSD). The Sweetwater Valley Outfall has a capacity of approximately 27 mgd; 7 mgd flow through the outfall at present (Palluy, 1981). The developer would be required to construct the necessary connector lines to reach the outfall, and would not be able to utilize the existing distribution line in San Miguel Road (Palluy, 1981). To connect to this line would require an offsite extension of 10,000 to 15,000 feet. The Bonita Long Canyon Estates Sectional Area Plan which was recently approved will require a sewer line to be extended through Long Canyon. However, the initial phase of that project would be sewered through the lower portions of Long Canyon to a line in Palm Avenue via Acacia. The portion of the Bonita Long Canyon Estates project requiring a sewer line extension through the upper (eastern) portion of Long Canyon, immediately adjacent to the EastLake property, will be developed as a later phase. If it were developed prior to the need for an extension to serve EastLake development, a large offsite extension would not be necessary for the EastLake project.

The area of the project tributary to Proctor Valley Road would generate an average sewage flow of 0.15 mgd. The Proctor Valley drainage basin flows north to the area served by the SVSD. To connect to the line in San Miguel Road at Proctor Valley Road would require an extension of 9200 feet.

The majority of the Poggi Canyon tributary area within EastLake would be developed as part of Phase 3 of the Community. Existing conditions may therefore be very different by the time this area develops. The basin drains south and is far from existing facilities. The area when developed would

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generate about 0.33 mgd of sewage (Lowry, 1980). To connect the Poggi Canyon tributary area to existing lines would require construction of lines to reach the METRO system's lines west of Interstate 5, since there are no lines south of the project site capable of handling the estimated sewage from the development (Harshman, 1981).

The Salt Creek tributary area is the largest single portion of the proposed development, and is also the furthest away from existing sewer facilities. It is estimated that development in the Salt Creek tributary area would generate an average sewage flow of 1.28 mgd. Connections to existing facilities would require off-site extensions of up to 10 miles in length (Lowry, 1980).

Total sewage output from EastLake when the community is fully developed is estimated to be 3.19 mgd (Lowry, 1980). The total flow proposed to be sewered through the Telegraph Canyon Trunk Sewer is 1.56 mgd. This flow includes 0.56 mgd of sewage proposed to be pumped on a temporary basis from the Proctor Valley, Long Canyon, and Poggi Canyon basins into the subject trunk sewer. This total sewage flow is 188 percent higher than the EastLake community's share of the Telegraph Canyon Trunk Sewer capacity. Table 3-3 shows a breakdown of estimated generation rates and sewage flow by land use in the development.

Table 3-3
EASTLAKE SEWAGE FLOWS

<u>Land Use</u>	<u>Generation Rate</u>	<u>Population/ Acreage</u>	<u>Flow (mgd)</u>
Residential	80 gal/person/day	30,445 people	2.43
Industrial	3000 gal/acre/day	208.9 acres	.62
Office/Commercial	2500 gal/acre/day	59.4 acres	.14
TOTAL:			3.19

Source: City of San Diego, 1981, City of Chula Vista, 1981.

The Series V forecast (SANDAG, 1980) for the Chula Vista Planning Area indicates a population of 188,000 by 2000. This forecast includes the project property, but was made assuming development under current land use designations. To include the project in growth forecasts, the estimated EastLake population of 30,445 would have to be added to the Series V forecast, resulting in a 2000 population of 218,445. Using a sewage generation rate of 80 gallons per person per day (Harshman, 1981), the planning area would generate 17.4 mgd by 2000. Development of EastLake would generate sewage beyond that anticipated for the Chula Vista Planning Area, and would incrementally decrease available capacity in the METRO system. It is unknown at this time how the additional planned METRO capacity would be allocated, however, additional capacity may be available for Chula Vista. Assuming an onsite sewage treatment plant is constructed to serve a portion of EastLake, the

percentage of total flow contributed to the City of Chula Vista's sewage facilities would be lessened, according to the area served by the treatment plant.

Development of EastLake as proposed would constitute an incremental increase in the volume of sewage now being handled by the Chula Vista and METRO systems. The project impact would not be significant on the overall capacity in either Chula Vista's system or the METRO system, but would be significant on the individual collection lines proposed for use by EastLake (in particular the Telegraph Canyon trunk line) if onsite reclamation is not developed for the project.

3.4.3 Mitigation

Development in the Long Canyon, Proctor Valley and Poggi Canyon tributary areas would generate an estimated sewage flow of 0.56 mgd. As stated above, to extend sewage facilities from these areas to existing lines would require lengthy connectors, therefore the Lowry report recommends as an interim solution pumping the sewage into the Telegraph Canyon tributary area, to flow into the existing trunk line. The total flow from the four tributary areas would be 1.56 mgd, or 188 percent in excess of the development's share in the trunk line. Also as stated above, the City of Chula Vista would accept a flow over EastLake's estimated share on a short-term basis. If development were to occur downstream from EastLake in the Telegraph Canyon drainage basin, that development would be entitled to its share of the trunk line's capacity, therefore EastLake would not have a long-term commitment from Chula Vista to be able to exceed its share of available capacity. Interim solutions must be considered exactly that -- temporary only -- and permanent facilities should be included in planning each phase of development.

Permanent facilities for sewage disposal recommended in the Lowry study include extensions to existing lines for the Telegraph Canyon, Long Canyon and Proctor Valley tributary areas' sewage, and an onsite reclamation plant to handle the Salt Creek and Poggi Canyon tributary area's output. A 3000-foot offsite extension from the western boundary of the site would be required to reach the Telegraph Canyon trunk line. The project developer would be responsible for extending the line to reach the site (Harshman, 1981). The 1.0 mgd generated in the Telegraph Canyon tributary area would be handled by the trunk line; 0.54 mgd would be acceptable on a long-term basis. The remaining 0.46 mgd would have to be included in the permanent solutions for community sewage disposal.

If the Long Canyon sewer line is constructed as part of the Bonita Long Canyon Estates development prior to the need for an extension to serve EastLake, no extensive offsite extensions would be necessary. If the EastLake line is needed before Bonita Long Canyon Estates is built out, construction of the line necessary to connect the Long Canyon tributary area with existing lines would require cooperation between the developer, the County, and existing property owners between EastLake and the Spring Valley Sanitation District's (SVSD) system. Additionally, improvements toward the lower end of Long Canyon may be necessary, such as parallel lines or modified grade to accommodate total sewage flows.

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The circumstances for extension of lines to handle Proctor Valley and Poggi Canyon sewage are basically the same as those cited for Long Canyon. Lengthy connectors would be required (9200 feet for Proctor Valley; 3 to 4 miles for Poggi Canyon) to reach existing facilities. Cooperation with existing development would cut costs significantly; however, only scattered residences now exist in the drainage basins, and counting on their support is not practical at this time.

The possibility exists that the Otay Mesa area south of the proposed project will develop in the future. A new trunk along the Otay River Valley could be constructed to serve this area, in which the EastLake community could participate. The City of Chula Vista would depend on developers to front the costs for construction of such a trunk line (Harshman, 1981), which might then serve the Poggi Canyon and Salt Creek tributary areas. The implementation of such facilities and EastLake's participation in them depends on the timing of new surrounding development to share the costs of extending lines.

Since extensions of sewer lines from the Salt Creek tributary area to existing lines would be over 10 miles, permanent solutions to disposal of sewage from this area should be planned on from the start. The Lowry study recommends that an onsite reclamation plant be constructed, capable of handling the 1.28 mgd flow estimated from the Salt Creek tributary area in EastLake. The study recommends that the plant be expandable to be able to handle sewage from any future development north of EastLake in the Salt Creek drainage basin. Costs for construction of the reclamation facility would be borne by the developer. The knowledge and experience of the Otay Water District in the area of reclamation should be considered a valuable resource if a reclamation plant is planned. If the plant were constructed, the effluent produced would be used as irrigation water for developed open space areas on the site. Measures to ensure that drinking water and groundwater supplies are not contaminated are discussed in the Water Quality section of this report. Provisions for emergency handling of sewage should be considered in the event that the proposed treatment plant fails or land disposal of effluent is not possible. One potential solution would be provision of storage capacity onsite with the capability of pumping into the METRO system through an existing line during off-peak hours. A backup system should be developed as part of the permanent sewage facilities for the community. Specific design of a wastewater reclamation plant should be analyzed at the time such a facility is proposed.

Mitigation of the over-capacity flow to the Telegraph Canyon trunk can only be accomplished by construction of permanent facilities for sewage collection and disposal. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, SS-1 through SS-4.

3.4.4 Analysis of Significance

Specific plans for sewage disposal have not been determined at this time, but project development would require extensions of existing lines and construction of new facilities both on and offsite since adequate facilities do not currently exist to serve the project area. Construction of adequate sewage facilities (new lines or onsite reclamation plant) would have to be phased with project development to assure that no significant impacts result. Flows above allotted capacity in the existing Telegraph Canyon trunk line would be significant if permanent long-term disposal solutions are not provided.

3.5 WATER AVAILABILITY

3.5.1 Existing Conditions

The site is within the boundaries of the Otay Water District (OWD), a retail distributor of water received from the San Diego County Water Authority (CWA). San Diego imports approximately 90 percent of its water from the Colorado River and the State Water Project, through a contract with the Metropolitan Water District (MWD) of Southern California. At present, the MWD has no limits to the amount of water its member agencies can receive, and San Diego's CWA has no problems obtaining the water it needs to supply the needs of agencies in the County.

The State of Arizona is in the process of constructing a series of canals to divert its share of Colorado River water, which Southern California has been using. The Central Arizona Water Project is estimated to be completed in 1985, and will take about half of the 1.5 million acre-feet currently flowing from the Colorado River to Southern California. This diversion of water will reduce the region's water supply by approximately 15 percent, and will require development of a new source of water such as the proposed Peripheral Canal, part of California's State Water Project. The Canal is highly controversial, and will be voted on by the State constituency in June of 1982. If it is approved, it is not expected to be in operation before 1990, 5 years after the anticipated completion of the Central Arizona Water Project.

If in the future the MWD imposes limits on water allocations to the CWA, those limits would be passed on to County water agencies. The existing and proposed facilities of the CWA are designed to meet the projected needs of its member agencies through the year 2000.

The 66-inch Second San Diego Aqueduct traverses the project site in a north-west-southeast orientation, then discharges into the Lower Otay reservoir, adjacent to the eastern boundary of the property. OWD's existing facilities on and near the site include two small reservoirs, a pump station, distribution lines, and a connection to the aqueduct. Water from the existing connection (number 4) is pumped to the reservoir northeasterly of it whence it would supply EastLake south of Telegraph Canyon Road. The second connection, number 9, has been designed and is proposed for construction in the near future, along with a 3-million gallon reservoir, and would serve the needs of the community north of Telegraph Canyon Road (Barber, 1981).

3.5.2 Impacts

The CWA and OWD currently anticipate no problems in supplying the proposed development with an adequate supply of water (Ogden, 1981; Barber, 1981). Water demand from the site, if it were developed under existing land use designations, would be considerably less than if the proposed General Plan Amendment and rezone are approved and the site was developed at a higher density. However, the water authorities concerned have expressed satisfaction with their ability to adequately supply the site, and do not consider the increased density of development to adversely affect their capacity for transporting water. If the site were annexed to the City of Chula Vista, the OWD

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would continue to be the responsible water agency for the development. Table 3-4 shows the demand for water by the EastLake community at ultimate development as presently proposed.

Table 3-4

ESTIMATED WATER DEMAND AT ULTIMATE BUILDOUT

<u>Land Use</u>	<u>Demand Rate</u>	<u>Flow (mgd)</u>
Residential	180 gallons/person/day	5.4
Industrial	3500 gallons/acres of floorspace/day ¹	0.51
Office/Commercial	2700 gallons/acre of floorspace/day ¹	0.12
Open Space	3000 gallons/improved acre/day	<u>1.5</u> ²
TOTAL FLOW:		7.53 mgd

¹Gross acreage minus 30 percent land use loss in net density calculations.

²Potential use of reclaimed water for open space uses.
Source: Lowry and Associates, 1980; City of San Diego, 1981.

Using the figures from Table 3-4 as a rough estimate, since the final figures would depend on the actual population and land uses in the development, EastLake would consume 7.69 mgd, or 23.6 acre-feet per day, which equals 8614.24 acre-feet per year. This amount of water consumption would not constitute a significant impact to the ability of the CWA or OWD to provide water to their present customers. However, it would represent an incremental increase in demand which would contribute to regional water supply problems.

It is the responsibility of the developer to design and construct water delivery systems capable of providing adequate water pressure for fire protection. The Chula Vista Fire Department requires 1000 gallons per minute (gpm) in single-family home neighborhoods, 5000 gpm in areas of apartment buildings, and 5000 gpm in commercial/industrial areas. Fire Department requirements must be an important consideration when final water system plans are designed.

In addition to supplying the urban water of EastLake, the OWD would provide water for agricultural use as long as land designated for agriculture was in parcels of 5 acres or larger, and is currently within the District's jurisdiction.

Phasing plans for the construction of EastLake's water system, as shown in the Domestic Water System Master Plan Study prepared by Lowry and Associates, would ensure adequate supply for the community as it developed. The wastewater reclamation plant suggested in response to sewage disposal needs could provide water to irrigate open space and recreation areas, thereby reducing the demand for imported water from the community.

The loss of imported water from the Colorado River will impact all of Southern California, regardless of project implementation. In 1985, 0.75 million acre-feet are anticipated to be lost to Arizona. The CWA expects the State of California to meet its water contract obligations, by construction of the Peripheral Canal. However water supply to the San Diego region is uncertain, and the magnitude of the impact from completion of the Central Arizona Water Project cannot be quantified at this time.

3.5.3 Mitigation

Impacts to regional water supply are not specific to the proposed EastLake project, but will occur because of factors beyond the control of the developer, based on the location and history of development in Southern California. Solutions to the problem of adequate water supply are regional and statewide in scope. The San Diego Association of Governments (SANDAG) has developed the Water Conservation Plan for the San Diego Region (1981) in anticipation of the coming reductions in water availability. The Plan sets an overall goal of eliminating "wasteful and inefficient uses of our limited water resources in order to help protect the public health, safety and welfare and to help assure an adequate supply to meet the essential domestic, commercial/industrial and agricultural water needs of our rapidly growing population and economy." Specifically, the Plan seeks to achieve, by the year 2000, an overall water use reduction 15 percent below that amount projected as necessary based on pre-1977 per capita water usage, and to achieve annual water use reductions sufficient to demonstrate reasonable further progress in meeting the 15 percent reduction in the year 2000.

A series of policies set to reach these objectives includes requiring low water use domestic fixtures and appliances, efficient irrigation systems, public education about water conservation, emergency conservation measures for use during shortages, and water recycling methods. These measures are to some extent applicable on the project level, and should be implemented where feasible. Use of effluent from the onsite sewage treatment plant for irrigation would be in accordance with the goals of the Water Conservation Plan, as would be installation of low-flow faucets and showerheads, low-flush toilets, and use of native and drought-resistant plants for landscaping within the East-Lake community.

Such mitigation measures undertaken on as large a scale as the proposed development would lessen the community's consumption of water; however, the problem of adequate supply must be solved on a regional scale. If the Peripheral Canal is constructed, phasing development to be completed after it is operational would relieve the regional impacts related to limited water supplies. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, W-1 through W-4.

3.5.4 Analysis of Significance

A new water system will be required to serve the proposed EastLake development. Construction of this system is the responsibility of the developer. Regional water supply impacts may result from the Arizona use of Colorado River water, and increased demands of additional development within the San

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Diego County area could contribute to significant cumulative impacts. Conservation measures and use of reclaimed water for irrigation could minimize the impact of project development on the regional water supply.

3.6 SCHOOLS

3.6.1 Elementary Schools

3.6.1.1 Existing Conditions

The project site is undeveloped at present and does not generate a demand for educational facilities. The site is within the Chula Vista City School District. The District is operating slightly over its capacity of 14,683 -- the enrollment total for March 1981 was 14,701. New growth in the east and northeast portions of the District has caused overcrowding at schools in those areas, and temporary buildings are being utilized in several schools to house students (Sydelko, 1981).

3.6.1.2 Impacts

The School District uses the following generation figures to estimate the probable number of new students to come from new developments: 0.2 students per multi-family dwelling; 0.4 students per single-family attached dwelling; and 0.6 students per single-family detached dwelling. Only general figures can be estimated at this point, since specific phasing and development plans are not available. Using an average of 0.4 elementary students per dwelling unit, and a first phase estimate of 1850 units constructed, approximately 750 students would be generated during the first phase of development. This number of students would create an immediate need for at least one new elementary school to be constructed concurrently with residential construction. The General Development Plan for EastLake indicates that space has been designated for two elementary schools within the area to be developed in the first phase.

Dependent on the final phasing and unit types developed throughout the property, and their respective generation rates, full development of the proposed project can be expected to generate between 4000 and 5000 elementary students. Based on the current design capacity for elementary schools within the District (600 students) approximately 7 schools may be necessary to serve the project area. Five elementary school sites have been designated on the proposed plan (all of which are adjacent to land designated for park use as recommended in the Chula Vista General Plan). The School District has no sites in the EastLake area, nor the funds to provide the necessary facilities to house new students. The District has indicated that the developer would be responsible for securing land and financing construction of new schools for EastLake students.

If no schools were built during the first phase of development, a significant impact would be incurred upon the existing facilities of the School District. Additionally, a significant impact would result if the total number of schools provided were not adequate to serve the project residents, or if schools were not provided in a timely manner throughout all phases of buildout, in conjunction with residential development.

3.6.1.3 Mitigation

Adequate land for the necessary school sites should be dedicated by the developer during all phases of buildout of the community. Developer funding would be necessary to finance construction of schools. At this time it appears necessary to provide two additional elementary school sites within the project area to adequately serve future project residents. Because the project will be phased over a 20-year period and requirements for school facilities could change, plans for schools should be carefully coordinated with the District to provide space for students as they are generated by new housing areas. Provision of adequate school facilities concurrently with residential development in EastLake would lower the level of impact to the Chula Vista City School District to insignificance. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, S-1.

3.6.1.4 Analysis of Significance

Students generated by project development would create a need for additional school facilities. If the developer assumes responsibility for securing land and financing construction of new schools for EastLake students, no significant impacts would result. If schools are not provided concurrent with need, existing facilities would be significantly impacted.

3.6.2 Junior and Senior High Schools

3.6.2.1 Existing Conditions

The site is within the boundaries of the Sweetwater Union High School District, which serves students in grades 7 through 12. The District currently is operating close to its capacity. Rapid growth in Chula Vista, particularly in the eastern part of the City, has impacted area schools; several schools are over-capacity and are using temporary buildings to house students (Hendee, 1981).

3.6.2.2 Impacts

The general phasing plans for EastLake indicate that approximately 1850 dwelling units would be constructed in the first phase. Using a figure of 0.5 junior and senior high school students per dwelling unit, 925 new students would be generated by the 1850 new units. The General Development Plan shows sites for one high school and one junior high. However, both of these sites are located in areas to be developed as part of Phase 2. Since the Sweetwater District is already close to capacity, particularly in the eastern portion of the District, the addition of 925 new students from EastLake would constitute a significant impact to existing junior and senior high schools. Full development of the project site would generate approximately 5900 junior and senior high school students. Based on average capacities for schools within the Chula Vista Planning Area (approximately 1415 for junior high and 1550 for senior high), more than one site for each level are considered necessary to serve the EastLake development.

The schools closest to the site are Bonita Vista Junior and Bonita Vista Senior High schools, just over 2 miles from the site on Otay Lakes Road. Both of

these schools are already crowded and operating over their capacities. In addition, new developments are underway within the attendance areas of these schools which will exacerbate the crowding problem (Hendee, 1981). Neither the junior or senior high schools proposed within EastLake are to be located within the Phase 1 development, which would significantly impact existing facilities within the District (letter of comment from Sweetwater Union High School District dated November 13, 1981).

The total number of junior and senior high schools required to serve the project area has not yet been determined, but is expected to be resolved within several months. The Sweetwater District does not have funds available at the present time to purchase sites, build new schools, or to expand existing facilities. Without timely planning and provision of schools coincident with residential development, the new students coming from the first phase of EastLake would significantly impact the Sweetwater Union High School District. The project applicant has presented a proposal to the District staff that provides for dedication of an appropriate number of school sites during the phased development of EastLake, and alternate funding mechanisms for construction of facilities. In a letter dated December 15, 1981 (see Volume 2 of EIR), the District indicated that the proposal was still under review prior to formal presentation to the board of trustees.

3.6.2.3 Mitigation

The need for junior and senior high school facilities would be created with the first phase of development; hence, some provision must be made to house those students. Dedication of school sites plus payment of development fees to provide schools on the site during the first phase of construction would avoid the impact to existing schools. Payment of fees to the district to allow expansion of existing facilities to accommodate EastLake students until community schools were built would lower the first phase impact on the District to insignificance. School facilities identified by the District as necessary to serve full development of the EastLake project should be provided concurrently with need to avoid a significant impact.

The District has recommended that the following mitigation measure become a condition of project approval:

"The General Development Plan for EastLake shall be conditioned to provide that prior to the approval of the first Sectional Planning Area plan (SPA), the Board of Trustees of the Sweetwater Union High School District and Cadillac Fairview Homes West shall enter into a binding agreement which provides for an agreed-upon method of site acquisition and construction financing to provide for the school facilities necessary to serve the first SPA. The solution itself shall be reviewed as part of the subsequent environmental review of the SPA as provided for in Table 1-1 of the Draft EIR prior to SPA approval."

Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, S-1.

3.6.2.4 Analysis of Significance

If junior and senior high school facilities recommended by the Sweetwater Union High School District are provided during project development concurrently with need, no significant impact would result. Additional sites beyond the one junior and one senior high school sites shown on the General Development Plan may be required to serve future project residents.

3.7 POLICE PROTECTION

3.7.1 Existing Conditions

The project site is currently within the jurisdiction of the San Diego County Sheriff's Department, but since it is undeveloped at present, it generates little or no need for law enforcement services. One Chula Vista Police Department patrol car is currently assigned to the area around Southwestern College, 1.5 miles west of the project boundary.

3.7.2 Impacts

Since the need for new police personnel has been estimated at 1.2 new employees per each 1000 residents (Winters, 1980), development of the project property at the low density allowed by current land use designations would have a lesser impact on police protection services in that fewer new personnel would be required than if the property were developed under the Planned Community designation proposed.

If the project property were to develop under current designations within the County, it would affect the Sheriff's Department by requiring service over a larger area. However, low density development has been anticipated in this area as part of County growth, and expansion of Sheriff's facilities will be necessary to maintain current levels of service as this and other areas of the County develop under the existing General Plan.

Development of the site as proposed within the City of Chula Vista would eventually create a need for new police personnel, the total depending on the final population of EastLake. With an ultimate population of 30,445 and estimating 1.2 new personnel for each 1000 residents, 36.5 new police employees would be necessary in the Chula Vista Police Department in order to maintain current levels of service to the surrounding areas and the new community. It is anticipated that the City would be able to provide the new personnel required by continuing development (Winters, 1981).

The Police Department's preferred emergency response time is 4 minutes. That would not be attainable with the first phase of EastLake development. The patrol car serving the Southwestern College area would also be required to respond to EastLake's needs; therefore, the initial development would impact the level of police protection now available to residents of the College area. Although response time would initially be low, the level of non-emergency police services to EastLake would be equal to that provided to the City at the present time. These services include accident investigation, traffic control, follow-up crime investigation, crime prevention services, and juvenile investigation services.

No new police substation would be required to serve EastLake since the Chula Vista Police Department operates on a roving patrol car basis. The police station is located in the Chula Vista Civic Center, about 7.5 miles from the site.

3.7.3 Mitigation

Mitigation of the adverse impact on law enforcement services would be accomplished through addition of personnel to the Chula Vista Police force in adequate numbers to effectively serve the EastLake community. This measure is beyond the control of the developer; however, the Police Department anticipates that as development occurs and new residency warrants, additional employees would be added to the police force (Winters, 1981), mitigating, over time, the expected impact to police services to a level of insignificance. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, P-1.

3.7.4 Analysis of Significance

Short-term impacts would occur due to an emergency response time below the preferred 4 minutes. However, additional police staff is anticipated to be added in response to new development, and no significant impacts would occur.

3.8 FIRE PROTECTION

3.8.1 Existing Conditions

The project site is within the jurisdiction of the California Department of Forestry. The closest fire station to the site is located on State Highway 94, northeast of the site. No response time was available. The City of Chula Vista has a fire station, Number 4, on Otay Lakes Road near Southwestern College.

3.8.2 Impacts

Development of the project property under current land use designations would result in a limited increase in population. Growth within the Chula Vista planning area, which includes the project property, is anticipated, as is the need to expand fire protection facilities in the future (Chula Vista General Plan, Safety Element, 1974). Expansion to meet the needs of development under low density designations would be substantially slower than under the Planned Community designation proposed.

If the property were not annexed to the City and developed as currently designated, it would remain under the jurisdiction of the California Department of Forestry (CDF). However, the CDF does not assume responsibility for protecting structural development, and other means of providing fire protection would be necessary. Among the options for the site in the County are annexation to the nearby Bonita/Sunnyside Fire Protection District, formation of a new Fire Protection District (requiring approval by LAFCO and the Board of Supervisors, and elections for formation and funding), or protection through activation of the latent power of the Otay Water District to provide fire protection. Fire protection capability would probably be made a condition of development within the County (Hix, 1981).

Development of the property as proposed within the City of Chula Vista would constitute a significant impact initially, in that existing facilities and personnel would be required to provide fire protection services over a much larger geographical area and for a larger population. Response time to the first phase of development would be 10 minutes, instead of the preferred 3 minutes.

3.8.3 Mitigation

A new station would be required within the project during the first phase of development in order to provide effective protection. A second station could possibly be necessary to serve EastLake at ultimate buildout (Monsell, 1981). The City of Chula Vista would be responsible for staffing the new station during the first phase of development. A single-family residential lot, located according to standards outlined in the Chula Vista General Plan's Safety Element, would be a satisfactory parcel for siting a station. The land should be located and dedicated as part of the specific development plans for Phase 1 of the project. Construction of the station structure and provision of the necessary fire apparatus and equipment may also be required as a condition of development (Monsell, 1981).

To ensure adequate fire protection, the developer has the responsibility of designing a water supply system capable of delivering water at the pressure required to operate fire fighting equipment. This is not specifically addressed in the phasing plan prepared as part of the Domestic Water System Plan Master Study prepared by Lowry and Associates; however, it must be an important consideration when final plans are drawn up. The pressure required ranges from 1000 gallons per minute (gpm) for single-family neighborhoods to 5000 gpm for apartments and industrial/commercial areas. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, F-1 through F-4.

3.8.4 Analysis of Significance

The proposed development could create increased demands for fire protection services and could have a significant, short-term impact on the department's ability to provide adequate service. Requirements for new station construction, provision of apparatus and equipment, and water supply system as outlined above would eliminate the impact.

3.9 ENERGY SUPPLY AND CONSERVATION

3.9.1 Existing Conditions

The project site currently is undeveloped; the few existing structures on the site consume minimal amounts of energy. San Diego Gas & Electric Company (SDG&E) has utility lines on and near the site at present, both natural gas and electric distribution lines. The Utility Master Planned Study for EastLake, prepared by Utility Planning, Inc., includes maps of the existing distribution lines on and near the project property.

3.9.2 Impacts

Under existing land use designations, growth in the project area would occur at a much lower density than is proposed under the General Plan Amendment.

Utilities would have to be extended to reach new development in any case, and with a higher density, costs per new unit would be lower than at low density development.

SDG&E serves incorporated and unincorporated areas within its service boundaries; hence, development on the project site would be able to receive utility service whether or not the property is annexed to Chula Vista. Existing facilities on and near the site would have to be extended to serve the project.

SDG&E has indicated that it has the ability to accommodate future growth in the area without adversely affecting its current level of service, as long as the developer works with SDG&E regarding phasing and implementation plans (Allred, 1981).

The impact to SDG&E expected in association with EastLake development concerns extension routes and construction. The final internal street design can be designed so as to facilitate smooth implementation of service to the project. The changes in extension rules previously mentioned will lessen the economic impact of new development on SDG&E by requiring developers to pay more for construction of new lines. A denser project, then, would cost the developer less per unit constructed than would a less dense project.

The project data base presents two tables estimating energy consumption for the development by land use and over the planned phases. These tables are presented in Tables 3-5 and 3-6; however, it is difficult to anticipate the energy demand from the project, since plans are not final, and many factors in the realm of energy supply and demand are subject to rapid change.

Energy demand for the project will be associated with commercial, residential and industrial development. This demand arises from uses such as space and water heating, interior and exterior lighting, cooking, operation of appliances and stove operations, water and sewer service and travel to and from the project by both employees, patrons and residents.

Upon full development of the project an estimated 263.46×10^6 kilowatt-hours per year and 14.41×10^6 therms of natural gas per year will be consumed. Total electric and natural gas consumption would be approximately 0.30 percent of the total energy supplied by SDG&E during 1980.

Based on an average consumption rate of 20 units per gallon, an estimated combined average daily traffic of 105,603 and an average trip length of 5.28 miles, the project would require 10,175,905 gallons of gasoline per year for transportation. This represents approximately 1.0 percent of the total gasoline sold in San Diego County in 1980. Of the total energy requirements for the project electricity is estimated to represent 41.1 percent, natural gas 0.69 percent and transportation 58.2 percent. The average trip length for the EastLake project is projected to be 5.28 miles, less than the average for Chula Vista of 6.3 miles (CPO, 1980). This is due to the proximity of a mixture of land uses, allowing persons to travel a shorter distance for employment, shopping, and recreational trips. Thus, although transportation would constitute the largest position of the total energy requirements for the proposed project, this consumption is not projected to be greater than any similar development within the Chula Vista Planning Area.

Table 3-5

EASTLAKE ENERGY CONSUMPTION BY LAND USE

Land Use	Electricity		Natural Gas		
	Consumption Generator	Annual Consumption Factor (KWH)	Consumption (10 ⁶ KWH/Yr)	Annual Consumption Factor (Therms)	Consumption (10 ⁶ Therms/Yr)
Residential	11,800.0 du	9,600 du	113.28	960 /du	11.328
Industrial Park	208.9 ac	350,000 /ac	73.12	6,000 /ac	1.253
Office	30.6 ac	500,000 /ac	15.30	6,400 /ac	0.196
Commercial	28.8 ac	700,000 /ac	20.16	35,000 /ac	1.008
Community Facilities	26.6 ac	500,000 /ac	13.30	6,400 /ac	0.170
Schools	113.2 ac	250,000 /ac	28.30	4,000 /ac	0.453
TOTALS:			<u>263.46</u>		<u>14.408</u>

Table 3-6

EASTLAKE PHASED ENERGY CONSUMPTION

Date	Percentage of Buildout	Electricity Consumption (10 ⁶ KWH/Yr)	Natural Gas Consumption (10 ⁶ Therms/Yr)	Auto Miles Driven (10 ⁶ Mi/Yr)	Gasoline ¹ Consumption (Gal/Yr)
1985	15.7	41.36	2.26	50.42	2.521
1990	47.7	125.67	6.87	152.69	6.107
1995	79.2	208.66	11.41	254.94	8.498
2000	100.0	263.46	14.41	321.73	9.192

¹ Assuming 20 mph in 1985 and increasing by 1 mph/year to year 2000.

Source: Larry Seeman and Associates.

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3.9.3 Mitigation

No significant impact to SDG&E is anticipated; therefore, no mitigation measures are necessary.

The data base for the proposed EastLake development states that the developer "is seriously committed to developing an energy-efficient community" (Larry Seeman Associates, 1980). In order to achieve that goal, several measures regarding energy conservation are discussed for implementation in the project. These occur in two basic areas -- transportation-related and heating- and cooling-related energy consumption. The suggested measures are as outlined below.

a. Measures to Maximize Internal Trips and Minimize Internal-External Trips, such as:

1. The community includes an office and employment center as well as employment opportunities in community and neighborhood commercial centers.
2. The community includes plans for support facilities, including commercial centers, recreational facilities, schools, a community center, and parks.

b. Measures to Facilitate Non-Vehicular Travel Within EastLake, to include:

1. A system of primary and secondary bicycle and pedestrian trails and a limited system of equestrian trails.
2. Rules and standards regarding the establishment of a safe public transit system to serve the community, including a transportation center to provide a transfer point, transit information and a park-and-ride location.

c. Implementation of Heating and Cooling Energy Conservation Measures Where Possible, among which might be:

1. Siting and orientation of structures to take advantage of climate and weather conditions.
2. Use of appropriate building design and materials, and landscape design, to construct energy-efficient structures.
3. Use of alternative energy systems, in the case of EastLake, primarily active and passive solar systems for residential heating and cooling.

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

Implementation of these conservation measures could lower the energy requirement for the EastLake community. The level to which consumption could be lowered is affected by many factors, including increases in energy costs, decreases in energy supply, increases in energy efficiency in vehicles and buildings, and advances in alternative systems technology, thus estimates are difficult to make and not dependable. The conservation measures mentioned above are important in helping to ensure that the development's impact on regional energy consumption is not disproportionately large. Specific measures should be evaluated and addressed during subsequent review of Sectional Area Plans for EastLake. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, E-1 through E-3.

3.9.4 Analysis of Significance

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

3.10 PARKS AND RECREATIONAL FACILITIES

3.10.1 Existing Conditions

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

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

3.10.2 Impacts

The General Development Plan for EastLake indicates that 715 acres of the site have been designated as open space. Of that, 96 acres would be improved

as park facilities, including one site in the area to be developed during the first phase. The six parks would provide sufficient park area for the estimated ultimate population of EastLake. In addition, the General Development Plan indicates that the following open space areas would be available in EastLake:

Table 3-7

USES OF OPEN SPACE IN EASTLAKE

<u>Land Use</u>	<u>Acreage</u>
Unimproved Open Space (Natural Undisturbed)	340 (200)
Improved Open Space Streets	205 <u>170</u>
TOTAL:	715

Improved parks developed in a timely manner to serve the residents of the first development, in addition to existing open space in and around the site, would satisfy the recreational needs intended to be met by community parks, according to the Chula Vista General Plan, and would insure that the EastLake development would not impact the existing parks in the City.

3.10.3 Mitigation

No impacts have been identified; therefore, no mitigation is necessary. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, PR-1 through PR-3.

3.11 LIBRARY SERVICES

3.11.1 Existing Conditions

The City of Chula Vista presently has one central library located in the Civic Center, about 7.5 miles from the project site. Policies in Chula Vista General Plan indicate that the library system should be developed to meet the relevant cultural, informational, educational and recreational needs of the general public, and requirements of persons engaged in specialized research. The facilities and programs are intended to be concentrated in the central library. Branch and/or storefront libraries can be established if it is shown that the central library cannot meet the needs of a significant number of residents.

3.11.2 Impacts

Due to the distance of the project site from the central library, and the size of the community proposed to be developed, it is the City librarian's opinion that adequate service cannot be provided by the existing facilities (Lane, 1982). The lack of adequate library service is a potentially significant impact.

3.11.3 Mitigation

In order to mitigate the potential impact on library service to insignificance, the City librarian has indicated that the following should be provided (Lane,

1982): a 2500 to 5000 square foot store front branch library for a period of 5 years; funding for 1 year for 2 librarians, 4 clerks and 6 part-time aides; 7000 to 8000 books (approximately \$10.00 each); and dedication of a 1 acre site suitable for construction of a permanent branch library.

3.11.4 Analysis of Significance

Development of the proposed project has the potential for adverse impacts to library services due to its size and distance from the existing central library. However, implementation of the recommended mitigation measures would reduce the impacts to insignificance.

3.12 OTHER UTILITIES AND SERVICES

Solid Waste Disposal

Solid waste generated by the proposed development would be disposed of at the Otay Landfill, located on Otay Valley Road one-half mile east of Interstate 805. The landfill covers 400 acres and has an estimated lifespan of 20 years (from 1981). It currently handles 1000 tons of waste per day.

Based on a generation rate of 5.5 pounds of solid waste per person per day (Lewis, 1981) and the estimated ultimate population of EastLake (30,445), the development would eventually produce 83.7 tons of solid waste each day. This would constitute an 8.37 percent increase in the amount of waste currently being handled at the landfill. The San Diego County Department of Public Works anticipates that the amount of solid waste generated by EastLake would not create a significant impact, although it would incrementally decrease the lifespan of the landfill.

Telephone Service

Pacific Telephone provides service to developments within its franchised service area, into which the project property falls. At present, a cable traverses the site in an east-west orientation. This cable serves Otay Peak and is already fully utilized, therefore it has no potential to serve the project. Existing lines would have to be extended from the intersection of Otay Lakes Road and Rutgers Avenue, less than 1 mile from the site. Offsite extension costs would be shared by the developer, depending on the length of extensions necessary. Service would be extended to the development under Tariff Schedules on file with the California Public Utilities Commission. Pacific Telephone anticipates no impact from the EastLake development on their ability to serve existing customers in the project vicinity.

Churches

The standard amount of land required for churches in suburban areas is 5 acres per church. The long-range planning office of the City of Chula Vista projects that six church sites would be adequate to serve EastLake since other religious facilities would be available in surrounding communities (Pass, 1981). It would be good planning policy for the developer to set aside church sites and would reduce the vehicle miles travelled by residents attending church.

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Hospital Services

The hospital nearest the project site is the Community Hospital of Chula Vista, a 24-hour basic care facility with 131 beds, 11 intensive-care rooms, and 10 pediatric beds. It is currently operating at an annual average of 63 percent of capacity, although there are times when the hospital is full. The hospital anticipates no significant problems from the development of the East-Lake community.

Paramedic Services

Hartson's Ambulance Company would serve the EastLake community. Response time to the site would be about 14 minutes. In order to efficiently serve EastLake, at ultimate development the ambulance company would probably expand by one ambulance. Hartson's expects no adverse impacts to their facilities through development of EastLake.

3.13 BIOLOGICAL RESOURCES

3.13.1 Existing Conditions

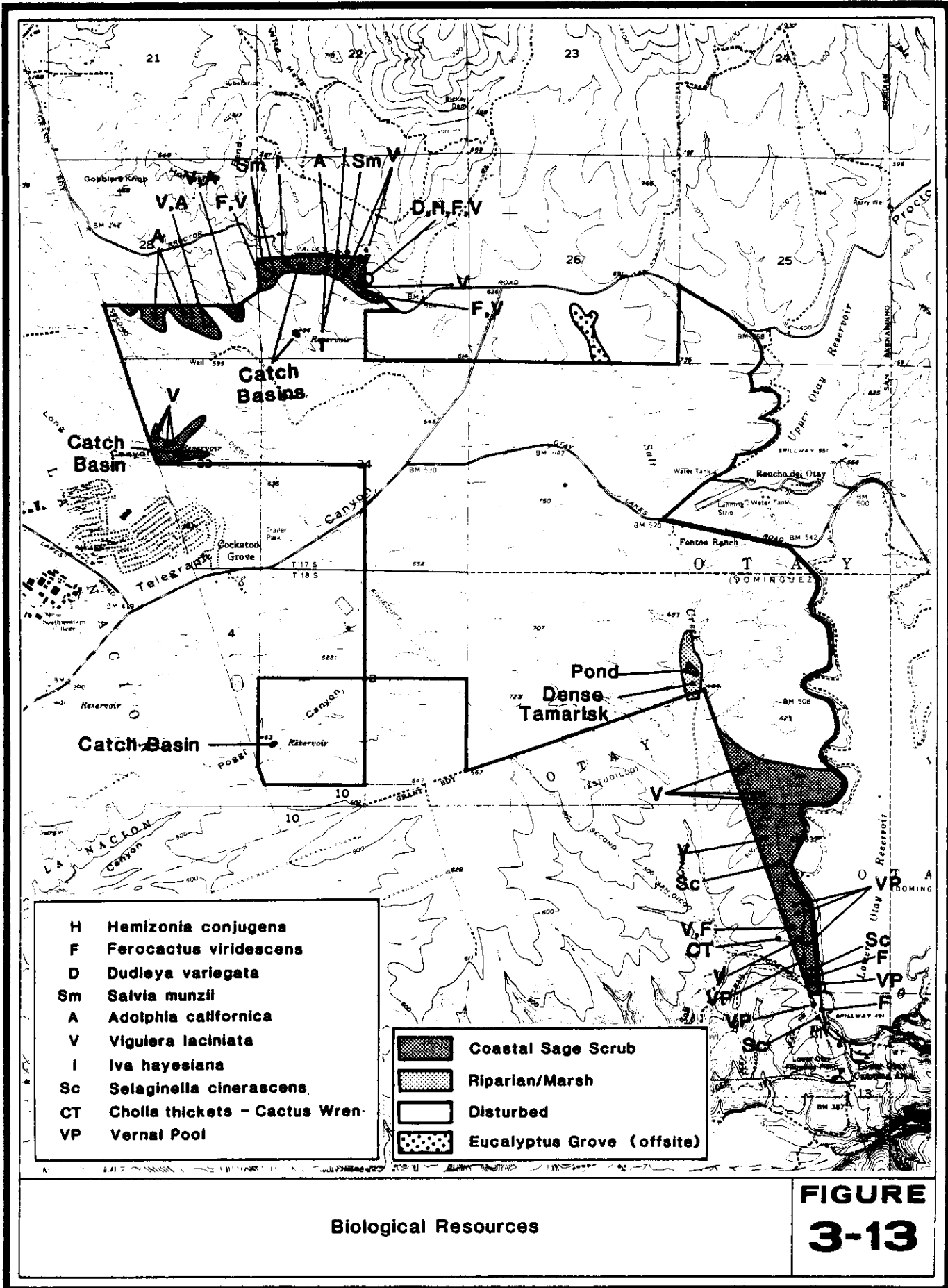
A biological survey report for the EastLake project site is included as Appendix A to this report and is briefly summarized below.

Vegetation

The great majority of the study area is regularly plowed and dry farmed for barley. This is an historical land use. An estimated 2458 acres (80 percent) of the property is cultivated. The remaining acreage includes ruderal, riparian woodland, freshwater marsh, low scrub, and vernal pool habitats. These habitats are discussed below and delineated on Figure 3-13.

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

Riparian woodland and freshwater marsh vegetative communities (Thorne, 1976) are present at a singular locality within the project area. An earthen dam creates a pond estimated at about 1.5 acres within the intermittent Salt Creek drainage. This pond which is very shallow is bordered by riparian and marsh elements. Riparian woodland is limited about the pond being represented by less than ten willows (Salix lasinadra) and a single Fremont cottonwood (Populus fremontii). The dam is thickly covered by mule fat (Baccharis glutinosa). A band or zone of marsh surrounds the east and west sides of the pond and extends up the Salt Creek drainage for a short distance. The marsh is made up of cat-tail (Typha sp.), bulrush (Scirpus sp.), cocklebur (Xanthium



Biological Resources

FIGURE
3-13

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strumarium var. canadense), smartweed (Polygonum lapathifolium), and bur-head (Echinodorus cordifolius). The area below the dam and extending about 400 feet south to the property line is a heavily wooded area which is not typical local riparian habitat. It consists of tamarisk (Tamarix sp.), spiny rush (Juncus acutus var. sphaerocarpus), mule fat, and a few phoenix palms. This habitat does not extend south offsite where grazing pressure has probably precluded its development. Likewise the pond/riparian/marsh habitat does not extend up the Salt Creek drainage giving way to agricultural pressures. There is no natural habitat buffer about this wetland complex.

Four additional catch basins are present throughout the project area but due to a variety of factors including recent structural modifications, cultivation, and heavy grazing pressure, they do not support any developed riparian or marsh habitat.

The low scrub habitat remaining onsite is southern coastal sage scrub (Thorne, 1976). Low scrub vegetation in the northwestern corner of the project area, except in steep-sloped situations, is relatively open and appears to be heavily grazed. Dominant species are California sagebrush (Artemisia californica) and California buckwheat (Eriogonum fasciculatum). Additional less common constituents include San Diego sunflower (Viguiera laciniata), coast cholla (Opuntia prolifera), and coastal prickly pear (Opuntia littoralis). Larger shrubs such as laurel sumac (Rhus laurina) and lemonadeberry (Rhus integrifolia) are uncommon in this area.

The vegetation is denser in the southern aspect of the area as it is not grazed and Viguiera laciniata is a more common constituent of the cover. In the northern limits of this area the vegetation is sparser and appears to be successional because of previous plowing. The vernal pool ephemeral (Thorne, 1976) vegetative community occupies small depressions on the mesa top of the panhandle portion of the subject property. These depressions fill with rainwater which does not drain off or percolate away due to topography and silt conditions. These pools exist as highly specialized plant habitat and support a unique succession of plant species distinct from that of the surrounding area (Purer, 1939). These pools remain delimited within the mesa top vegetation and weedy adventitious species and surrounding vegetative types do not obliterate or greatly trespass their margins. Five vernal pools were identified in October in their dry cycle. These pools vary from relatively smooth to cobbly bottoms. Pool areas were estimated by pacing to vary between 60 to 250 square feet. All the pools were very shallow. Vernal pool species observed onsite include dwarf woolly heads (Psilocarphus brevissimus), grass-poly (Lythrum hyssopifolia), rabbitfoot grass (Polypogon monspeliensis), and hairgrass (Deschampsia danthonioides).

Wildlife

Given that the great 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 very 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, given time, a majority of the wildlife species

normally associated with the coastal plain and lower foothills of the San Diego Region. Major wildlife habitats generally lacking within the project area (chaparral, aquatic) are well-developed immediately adjacent to the north and east.

Birds: Avifauna is usually the most easily observed wildlife element in most faunal investigations. Species are usually reflective of a particular habitat type. Within the cultivated or disturbed habitats and generally open habitats, observed species include Western Meadowlark (Sturnella neglecta), Horned Lark (Eremophila alpestris), Lark Sparrow (Chondestes grammacus), Mourning Dove (Zenaidura macroura), House Sparrow (Passer domesticus), Cassin's Kingbird (Tyrannus vociferans), Western Kingbird (Tyrannus verticalis), Starling (Sturnus vulgaris), House Finch (Carpodacus mexicanus), Loggerhead Shrike (Lanius ludovicianus), and Burrowing Owl (Athene cunicularia).

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), Anna's Hummingbird (Calypte anna), Rufous-crowned Sparrow (Aimophila ruficeps), Phainopepla (Phainopepla nitens), Sage Sparrow (Amphispiza belli), and Roadrunner (Geococcyx californianus).

Raptors observed in the area include White-tailed Kite (Elanus leucurus), American Kestrel (Falco sparverius), Red-tailed Hawk (Buteo jamaicensis), Marsh Hawk (Circus cyaneus), and Golden Eagle (Aquila chrysaetos). No raptor nests were observed within the study area. A large isolated eucalyptus grove located adjacent and north of the project area is undoubtedly used by a variety of raptors for perching.

Mammals: Mammals observed during the field survey include the ubiquitous California ground squirrel (Spermophilus beecheyi), the common desert cottontail (Sylvilagus audubonii), and the common black-tailed jack rabbit (Lepus californicus). Indirect evidence (scat, tracks, nests, burrows) was noted for 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.

Reptiles and Amphibians: Reptiles observed either on the subject property or on adjacent similar habitat include the ubiquitous western fence lizard (Sceloporus occidentalis), coastal rosy boa (Lichanura trivirgata ssp. roseofusca), common kingsnake (Lampropeltis getulus 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). Due to the temporary presence of water in the three small catch basins on the property a variety of toads and frogs may be present in the area in the spring. Vernal pools presence within the study area are also utilized as breeding sites for amphibian species.

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High Interest Species/Habitats

High interest species are those plants and animals which are considered to be rare and/or endangered, threatened, of depleted or declining status, blue-listed, endemic, or of unique or limited distribution. These species may be officially listed by the federal or state governments, currently under status review by wildlife agencies, recommended or nominated for official listing by knowledgeable experts, or noted as potential nominees for listing due to continuing habitat losses caused primarily by human pressures (urbanization, agriculture, off-road activity).

Seven high interest plant species were observed on the project area. They are listed along with pertinent data (status, distribution within the area, and range) and their rarity-endangerment code as established by the California Native Plant Society (CNPS, 1980). An explanation of the CNPS code is included in Appendix A.

Hemizonia conjugens Keck.

Otay Tarweed

Proposed for listing by USFWS (1980) as endangered by CDFG (1979)

CNPS: 3-3-2-2

Annual herb known only from southwestern San Diego County. Found on mesas and among low scrub. It is relatively common just north of the northwestern corner of the study area. Occurs along one of the property lines (WESTEC, 1980) but was not observed elsewhere onsite possibly due to off-season sampling period.

Ferocactus viridescens (Nutt.) Britton & Rose.

San Diego Barrel Cactus, Coast Barrel Cactus

Proposed for listing by the USFWS (1980). No CDFG status.

CNPS: 1-2-2-1

Small barrel cactus found on mesas and arid south-facing slopes. Species is found from roughly Rancho Bernardo south along the coastal plain into northern Baja California. One hundred eight specimens counted in the panhandle portion of the property, 113 counted south of Proctor Valley Road, and at least 100 specimens north of Proctor Valley Road.

Dudleya variegata (Wats.) Moran.

Variegated Dudleya, San Diego Hasseanthus

Proposed for listing by USFWS (1980). Under status review by CDFG.

CNPS: 1-2-2-2

Perennial herb; a small succulent with vernal leaves. Species is present in dry stony places. Species range includes southwestern San Diego County and northern Baja California. Species recorded north of

Proctor Valley Road both on and offsite also offsite south of the panhandle. May occur elsewhere onsite but not observed due to offseason sampling period.

Salvia munzii Epl.

Munz Sage

No federal or state status.

CNPS: 2-1-1-1

Low shrub which is patchy in its distribution in the study area. Fifty-five specimens found just south of Proctor Valley Road in the northwest portion of the study area. It is found at a number of locations adjacent to the northwestern corner of the property, being relatively common where it is present. Species is known from Dictionary Hill, San Miguel Mountain, Jamul Mountains, San Ysidro Mountains, and northern Baja California.

Adophia californica Wats.

California Adolphia

No federal or state status

CNPS: 1-2-1-1

Low spiny shrub found sparingly (estimated 36 specimens) in low scrub vegetation in the northernmost portion of study area just south of Proctor Valley Road. Species is naturally found in washes in southwest San Diego County and northern Baja California.

Viguiera laciniata Gray.

San Diego Sunflower

No federal or state status

CNPS: 1-2-1-1

Small shrub found primarily on arid south-facing slopes throughout native low scrub habitat. Species is more common in panhandle portion of study area but generally not well developed onsite. Species ranges from Mission Valley south into northern Baja California and eastward to Potrero.

Selaginella cinerascens A.A.Eat.

Mesa Club-Moss

No federal or state status

CNPS: 1-2-1-1

Species forms an ashen carpet on mesa tops between low scrub in southwestern San Diego County and northern Baja California. Species is common in panhandle portion of project.

No rare, endangered or threatened animal species as listed by the U.S. Fish and Wildlife Service (USFWS, 1979) or the California Department of Fish and

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Game (CDFG, 1980a) were observed in the study area. The American Peregrine Falcon (Falco peregrinus anatum) and the Southern Bald Eagle (Haliaeetus leucocephalus leucocephalus), listed as endangered by both the USFWS and the CDFG, are expected to be transients in the study area. They do not nest in the survey area.

Least Bell's Vireo, Vireo bellii pusillus, a small bird with a strong preference for riparian habitat, was recently recommended by Remsen (1977) for inclusion on the state and federal endangered species lists. Remsen in 1977 noted that as few as 24 breeding pairs may remain of a species which once was a common to abundant bird in suitable habitat in the interior valleys and along southern coastal areas of California. Remsen (1977) concludes that "...the decline of this once common small bird is unparalleled in the history of California ornithology." The dramatic decline of this species is attributed in part to the reduction of suitable riparian breeding habitat but primarily to cowbird (Molothrus ater) parasitism. Such data led the California Department of Fish and Game to study the situation (Goldwasser, 1978). That study estimated 89 territorial males or pairs in seven Southern California counties and its conclusion recommended endangered status for the species. 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 could be attracted to the wetland area on Salt Creek. This species was recently listed as endangered by the California Department Fish and Game (1980a).

Additional sensitive species not officially designated but which are recommended or considered to be rare locally include the orange-throated whiptail lizard, Cnemidophorus hyperythrus beldingi, and cactus wren (Campylorhynchus brunneicapillus). The orange-throated whiptail lizard was recommended as early as 1971 for listing as a rare subspecies (Bury, 1971). This small lizard prefers areas of sparse and variable vegetation, and would be expected in the rock sandy drainages throughout the project area. This form occurs from Laguna Beach and the vicinity of Riverside and San Jacinto southwest of the mountains to northern Baja California. The cactus wren (Campylorhynchus brunneicapillus) of the San Diego region is considered one of the most severely threatened of all local species (Rea, 1981). It has been considered locally rare by ornithologists of the San Diego area for some time. Two individuals and at least four of this species distinctive nests were observed in a draw about 2000 feet north of the Otay River and additional nests were observed in cholla just adjacent to the fence line along the panhandle portion of the site. In addition a number of nests were observed in a dense thicket of cholla in a canyon in the northwestern corner of the site. A number of species of depleted or declining status were observed or expected onsite. These are discussed in Appendix A.

Sensitive Habitats

Riparian woodland and freshwater marsh are rare habitats within San Diego County. They occupied 0.2 percent of County acreage in 1963 (CD&G, 1965). This percentage has undoubtedly decreased during the past 16 years. For these reasons the County of San Diego encourages the conservation of these habitats (County of San Diego, 1980).

Coastal sage scrub is still relatively common in the region. This habitat was estimated to cover 13.4 percent of the County acreage in 1963 (CDFG, 1965), the third most extensive habitat type behind chaparral and low desert. Recent growth of both urban development and agriculture in the coastal foothills and along the coastal plain has greatly reduced this habitat type. Oberbauer (1979) has suggested that up to 70 percent of this habitat has been lost or modified. As such, a number of bird and reptile species closely associated with this habitat are now considered rare or declining.

Vernal pools are rare and unique vegetative habitats. They contain a number of high interest plant species and provide temporary breeding pools for amphibians. A ciliate protozoan (Systylis hoffi) was recently discovered in vernal pools on Kearny Mesa (Cox, 1978). It was the first known locality for this rare species in the United States and only the fourth known worldwide. Vernal pools once covered areas of what now is Linda Vista, East San Diego, Kearny Mesa, and the community of Mira Mesa. Vernal pools occur in San Marcos in very limited quantity, and they are relatively common on portions of Otay Mesa and on flat mesas from Tierrasanta to the north rim of Los Penasquitos Canyon. The great majority of these pools are in danger of being eliminated in the near future due to urbanization. Vernal pools are also found in southern Riverside County (Santa Rosa Plateau) and the Central Valley region of California. It has been estimated that more than 90 percent of the original vernal pool habitat within the San Diego region has been eliminated (Beauchamp, 1979).

The vernal pools onsite were not evaluated by the biological committee which made recommendations to the City of San Diego in developing their preservation plan (Balko, 1979). On a comparative basis the panhandle pools would be judged to be of low relative value based on the low number of pools present, the apparent lack of sensitive plant taxa, and the lack of pool structural diversity.

A number of sensitive habitat designations have been applied to surrounding properties. These include Resource Conservation Area (RCA) No. 16 as per the Sweetwater Community Plan and the San Miguel Jamul Mountains, Otay Mountain, and Northern Miguel Mountain RCAs of the Otay Subregional Planning Area. Otay Mountain to the southeast is listed as significant natural area by the California Natural Areas Coordinating Council (Hood, 1977) and a large portion of Otay Mountain is under consideration for wilderness status (BLM, 1979). Upper and Lower Otay Reservoirs which are unique biological resources in the County, are adjacent to the property.

3.13.2 Impacts

In the northwestern corner of the property, realignment of Proctor Valley Road, if necessary, could adversely affect biological resources. Realignment to the south could eliminate all or portions of populations of Adolphia californica, Iva hayesiana, Ferocactus viridescens, and Viguiera laciniata located in this area. All of these species, with the exception of Iva hayesiana, are found onsite north of Proctor Valley Road or elsewhere on the property in either comparable or greater numbers. Iva hayesiana is found north of Proctor Valley Road onsite but not in numbers comparable to that found along the

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drainage south of the roadway. It is relatively common offsite to the north of the property and along other adjacent offsite drainages such as Salt Creek.

The construction of East H Street in the vicinity of Proctor Valley Road will affect biological resources but only to a limited extent. Some native vegetation west of the roadway including a singular specimen of Salvia munzii may be affected. The degree of impact to this area is expected to be minimal. Salvia munzii is relatively common higher on the slope to the west in this area and the loss of a singular specimen is not considered a significant adverse effect.

In the southeastern aspect of the project area the riparian woodland and freshwater marsh communities will be eliminated as they currently exist along Salt Creek. The existing pond is heavily silted and would hold little water to any appreciable depth. The 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 is a typical south of the small dam. The value of the existing pond and surrounding habitat is enhanced by the lack of surrounding cover for wildlife, thus wildlife can be expected to be concentrated in this area. Unless the pond were rehabilitated, however, the area would be expected to become less attractive to sensitive riparian bird species which require marsh or riparian woodland habitat.

In the panhandle portion of the site in the southeastern corner of the property, an estimated 45 percent of the existing native low scrub will be lost to development. All of this loss occurs in the northern or upper portions of the panhandle, in an area which appears to have been previously cleared and is now successional scrub dominated by California buckwheat (Eriogonum fasciculatum). Viguiera laciniata is more common in the upper portion of panhandle than the lower portion and is best developed locally on the south-facing slopes along the western property boundary in this area. Of the four populations of V. laciniata noted in the upper panhandle, it is probable that two will be preserved in open space. The remaining two populations may be lost to development. The estimated loss of Viguiera in this area is not considered a significant adverse effect due to the relative commonness of this species in the region and the lack of good development of the species in this area compared to other areas of its occurrence. Other sensitive plant species identified in the panhandle are south of proposed development and should not be directly affected by the project. None of the vernal pools will be directly destroyed by the proposed development scheme. An existing dirt road runs along the mesa or ridgetop in the southern portion of the panhandle. It is probable that an emergency access road may be needed in this area. If such is the case, the existing roadway should be utilized to minimize impacts to resources in the panhandle area.

Generally, the majority of the existing low scrub habitat onsite will be preserved as national open space. Reductions in this habitat remove primarily successional phases of the vegetative type or areas which are being heavily grazed. Thus the remaining native habitat which is undisturbed will retained

as is. Reductions of the extent of this habitat onsite is considered to be an adverse though nonsignificant effect. The habitat is rapidly declining but those areas lost have been or currently are disturbed and are not considered good habitat for associated declining bird species such as the Cactus Wren and Black-tailed Gnatcatcher. Reductions in sensitive plant species are expected for Iva hayesiana, Ferocactus viridescens, Viguiera laciniata, Adolphia californica, and Salvia munzii. Of the 313 specimens of Ferocactus observed on the property, losses are estimated at about 48 or 15 percent. The reduction in Viguiera laciniata, Adolphia californica, and Salvia munzii are considered minor effects due to the low numbers of plants involved. Viguiera laciniata is patchy in its distribution on the property and is not a major component of the low scrub cover as is the case elsewhere in its range. Losses for this species is estimated at less than 100 plants. Reductions in Adolphia californica and Salvia munzii are estimated at 36 and 1, respectively. Other populations of sensitive plant species observed will be retained in their entirety onsite.

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 will be retained in one of the steep canyons in the northwestern corner of the site. Proposed development will not come near the cactus wren habitat adjacent to the western boundary of the site. The general loss of open land will adversely affect raptors which are attracted to the area to hunt. The loss of the 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 Bell's vireo, yellow warbler, and two-striped garter snake.

General reductions in low scrub habitat will proportionately incrementally reduce potential habitat for the coast horned lizard and orange-throated whip-tail lizard.

One could expect an increase in runoff into the local drainages from urban uses as the communities build out. Such increases 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. Such a design benefits onsite resources and sets the precedent for natural areas to be logically continued offsite. Such offsite continuation would possibly retain a large grove of eucalyptus located on Salt Creek adjacent to the northern property boundary which is likely to be used by raptors for perching. The Salt Creek drainage aside from the pond and associated habitat is disturbed. The drainage will have to be rehabilitated. Its utilization or potential as an open space wildlife corridor would be significantly reduced if the pond and its associated habitats are removed or if community facilities are placed within the drainage. If native or semi-native habitats are to be reconstructed or allowed to develop within the Salt Creek drainage and wildlife is a desired part of the open space onsite, the effective blocking of this drainage with urban development could preclude such results.

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3.13.3 Mitigation

The proposed General Development Plan includes 340 acres of natural open space. This figure includes an estimated 200 acres of existing native vegetation. The project design retains the majority of existing native vegetation and the inclusive sensitive species. The vernal pools onsite are to be retained. It is recommended that land which is currently in agriculture but is designated for open space be rehabilitated to low scrub to mitigate the loss of low scrub habitat onsite and buffer the project from offsite resources such as Lower and Upper Otay Reservoirs. Consideration should be given to creating wildlife zones within the two planned man-made lakes. The development of such zones as well as wildlife corridors throughout the major drainages onsite would mitigate the loss of the riparian resources on Salt Creek. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, B-1 and B-2.

3.13.4 Analysis of Significance

The majority of sensitive habitat onsite would be retained as natural, undisturbed open space. Biological impacts are not considered to be significant.

3.14 VISUAL RESOURCES

3.14.1 Existing Conditions

The project site consists of 3073 acres of land in the western foothills of the Penninsular Range. The project site is typical of the foothills, with rolling hills cut by drainages. Elevations range from 750 feet above mean sea level (MSL) in the center of the site to 370 feet above MSL in the northwestern corner, where the site slopes down to Proctor Valley. Figure 2-2 shows the topography of the site and the surrounding area.

The site consists of parts of three ridges sloping down from San Miguel Mountain, and intervening and surrounding drainages. The highest ridge is located in the center of the site and runs in a north-south direction. It is divided into two parts by Poggi Canyon in the southwestern portion of the site. A second ridge, located on the eastern edge of the site, roughly parallels the first. The upper reaches of Salt Creek separate these two ridges. The second ridge slopes down into Otay Lakes, immediately east of the site. The third ridge, located in the northwestern portion of the site, slopes down from Mother Miguel Mountain in a southwesterly direction. Telegraph Canyon separates this ridge from the first. The third ridge is split to the southwest by Long Canyon and it drains to the north into Proctor Valley.

The site is used almost entirely for growing barley, though a small part in the southeastern and northwestern areas remains natural. During the spring, the site presents a green, pastoral appearance. In the summer and fall, the grain turns brown and after harvesting, bare fields remain. The site is plowed during the fall and winter and remains bare through these seasons.

The site is crossed by Otay Lakes Road and is partially lined by pepper trees. Fenton Ranch, on the eastern boundary, is the only residence on the site, though Otay Ranch is located just offsite to the east, north of Otay Lakes Road. A water reservoir is located onsite, south of Otay Lakes Road in the

center of the site. The water tank has been painted blue-green and is surrounded by eucalyptus trees.

The site is bordered on the west by existing single-family development and a mobile home park. Otay Lakes Park is located to the east. The remainder of the surrounding land is vacant or used for agriculture.

Views from the higher elevations on the site are panoramic, with rolling hills in the foreground and undeveloped mountains such as San Miguel and the Otay Mountains to the north and east, respectively, in the background. Lower Otay Lake can be seen to the east from the higher elevations of the central ridge and from the easterly ridgetop. Development in Bonita can be seen in the distance to the north from the northern hills. Existing single-family homes directly west of the site can also be seen from hills in the northern portion of the site.

Views from the lower elevations onsite are much more constrained by topography and consist of the interior of drainages. Occasionally, San Miguel or the Otay Mountains are visible over the tops of hills.

The site's visibility to the surrounding area is dictated by topography. The entire site is visible to hikers or other recreational users on San Miguel Mountain or in the Otay Mountains. Existing residential development west of the site would have views of the ridge tops in the north as well as the lower slopes closest to the development.

Part of the site is also visible to travellers on Otay Lakes Roads, to users of Otay Lakes Park and to boaters on Lower Otay Lake. Motorists can see the slopes nearest to the roadway. This generally is a strip from 500 to 1500 feet wide, though canyons allow viewers to see up to 3000 feet from the roadway. Boaters on Lower Otay Lake, in addition to travellers on Wueste Road, which parallels the lake shore, can see the eastern slope of the eastern ridge. Visitors to Otay Lakes Park, which is approximately 0.1 mile south of the south-east corner of the site, can see the eastern slopes and hill top of the eastern ridge.

Designated Scenic Resources

City of Chula Vista: Otay Lakes Road is designated as an unofficial Scenic Route by the City of Chula Vista Scenic Highway Element (1974) because of the panoramic views of hills and valleys. On a clear day, downtown San Diego is visible from the section of roadway west of the project site. The Scenic Highway Element also designates proposed roadways as unofficial Scenic Routes. Those that would cross the site include East "H" Street and Orange Avenue. The element's major objective is to "preserve and enhance the scenic quality of selected streets in Chula Vista." To meet this objective, several policies have been developed which address plan review for parcels adjacent to scenic routes.

County of San Diego: The county of San Diego has also designated Scenic Route Corridors onsite, including Otay Lakes Road, Rancho Janal Road and proposed Highway 125 (1975). A major objective of the County is to "Protect

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and enhance scenic resources within both rural and urban scenic highway corridors." To do this, a policy was adopted to: "Establish and apply design standards to regulate visual quality of development within scenic highway corridors."

3.14.2 Impacts

The change in land use designations proposed by the project would significantly alter the visual quality of the site. Development permitted by the project would be substantially different from that allowed by the existing land use designations.

Development proposed ranges from low density residential to employment park uses, and includes the major portion of the activity spine. These designations would replace the existing pastoral appearance of the site with urban development and would substantially change the visual character of the site.

The General Development Plan includes 715 acres of natural and landscaped open space. Most of the natural open space is located in the steep canyons in the northwestern quadrant, along the eastern boundary adjoining Otay Lakes and in the Poggi Canyon area in the southwest. These areas would serve as buffer zones between the development and Otay Lakes or between residential and other uses.

The eastern part of the Lakeview section, adjoining Lower Otay Lake, is designated by Chula Vista for park and open space uses. The designation extends from the eastern boundary of the site westerly to the top of the ridge, and allows the preservation of the viewshed from the lake and Otay Lake Park. The project proposes an open space designation for the lower slopes of the ridge, while designating residential development of densities ranging from 3 to 20 units per acre for the upper slopes. Construction according to these designations could result in an urban intrusion on the viewshed of users of the lake and park. Structures, particularly in the higher density designations, are likely to be multi-story and could be significant intrusions into the rural nature of the park unless screened from view.

The Land Use Plan for EastLake will permit a substantial amount of topographic alteration. Although no detailed grading plans are available at this time, potential topographic alteration can be generally discussed on the basis of land use requirements. Site-specific visual impacts should be addressed during future project review.

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

The Development Plan calls for the construction of commercial, office, employment park and high density residential structures in SkyPark. All of these uses require a substantial amount of grading to provide the large building

pads and parking lots generally required for these uses. The existing hill and drainage topography would have to be changed significantly to support the proposed high intensity land uses. A lake is proposed for the southwestern corner of the subcommunity. The commercial development, office buildings and highest density residences are planned to surround the lake in a flat, relatively wide valley. The employment park, containing light industrial uses, is proposed for the surrounding broad hills. These landforms could be substantially altered.

The project site will be crossed by a high voltage transmission line. Development of individual units should consider this when planning the sites, and should plan a visual buffer, either with open space or landscaping, between the towers and adjacent residences.

The potential scenic highways crossing the site will not be affected significantly by the project as the project regulations provide adequate guidelines to protect the viewsheds of the roadways. Additionally, the proposed lake north of Telegraph Canyon Road could have a beneficial impact if landscaped and designed according to the PC regulations.

The PC regulations have several guidelines for visual appearance that would have to be followed by developers of specific areas of the site. Site plans must receive architectural approval. Landscape plans detailing proposed landscape design, plant materials and irrigation and maintenance plans must be approved. In addition, the PC regulations proposed by the applicant promulgate controls and guidelines for grading as well as development within the viewshed of scenic routes. If the project is approved, the criteria outlined by the PC regulations would have to be satisfied at the time specific development plans are submitted.

It should be emphasized that the proposed development would totally change the appearance of the site and the surrounding area. The pastoral character of the existing landscape would be replaced by urban development. At full build-out, the project would be similar to a large town and the agricultural nature of the area would be lost. Mitigation measures are available to help alleviate the impacts of each component of the project, yet the combined effect is still that of urban development, and is considered a highly significant alteration.

3.14.3 Mitigation

The significant impact caused by developing within the viewshed of Otay Lake can be partially mitigated by design elements, particularly by utilizing buildings of two stories or lower, and by using exterior coverings of stained wood and other materials with a natural appearance. This could be accomplished by a density transfer of dwelling units from the viewshed area to other portions of the Sectional Planning Area. However, this impact cannot be mitigated to insignificance except by altering the project design to disallow development within the viewshed.

Grading Design: It is the intent of this project that graded areas will be contoured to blend with natural landform characteristics. Rounding both vertical and horizontal intersections of graded planes, obscuring slope drainage

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structures with a variety of plant material massing, incorporating the use of variable slope ratios for larger slope banks, use of landscape planting for erosion control and to obscure man-made banks, architectural solutions to topographic changes, and other similar techniques should be used. Artificially appearing slope banks with rigid angular characteristics shall not be permitted.

Grading Policies: General policies with regard to development within the project are as follows:

- a. Visually significant slope banks should be preserved in their natural state by clustering development.
- b. The natural character of the hillsides should be retained.
- c. Visually significant rock outcroppings, native plant materials, natural hydrology, and areas of historical or visual significance identified by the Chula Vista General Plan or through the EIR procedure should be preserved to the extent practical.
- d. A variety of housing types, padding techniques, grading techniques, lot sizes, site design, density, arrangement, and spacing of homes and developments should be encouraged.
- e. Innovative architectural, landscaping, circulation and site design should be encouraged.
- f. Safety against unstable slopes or slopes subject to erosion and deterioration should be provided.

Scenic Highway Standards: The highways identified on the General Development Plan-Circulation, as Scenic Highways shall be reviewed for conformance to the Scenic Highways Element of the General Plan during the plan review process for the applicable Sectional Development Plans. This review should include: architectural design of structures; siting of structures; height of structures; landscaping; signs; and utilities.

In connection with any tentative map submitted on properties abutting a scenic route, the applicant shall be required to submit a proposal for beautification of the portion of the scenic route adjacent to his development. Each proposal shall consider such factors as: the treatment given to the scenic route outside the boundaries of the particular tentative map area; preservation and enhancement of natural features of the site; creation of a pleasing streetscape through special landscaping techniques and varied building setbacks; and, creation of substantial open areas adjacent to scenic routes through the use of clustering and innovative concepts.

Implementation of these measures is the responsibility of the developers of specific units. These measures would serve to reduce impacts related to topographic alteration.

Impacts to visual quality can be partially eliminated by using appropriate design elements. Exterior and roofing materials should be compatible with

surrounding landscape. Multi-story buildings should be minimized on hilltops, and clustered instead in the lower elevations. Parking for commercial areas should be in a greater number of small areas rather than in one large area. Underground or lower level parking should be encouraged. This is a partial listing of available design alternatives. Utilization of these and other elements will reduce visual impacts. Mitigation measures proposed by CPHW are included in Volume 2, letter 30, Summary of Mitigation Measures, V-1 through V-13.

3.14.4 Analysis of Significance

The proposed project would substantially alter the visual character of the site from a rural, agricultural setting to a more intense urban planned community. The degree of significance associated with this change is dependent upon final project design and the subjective decision of the viewer. Site-specific visual impacts cannot be determined at this time, but should be addressed during subsequent project review.

3.15 GEOLOGY

3.15.1 Existing Conditions

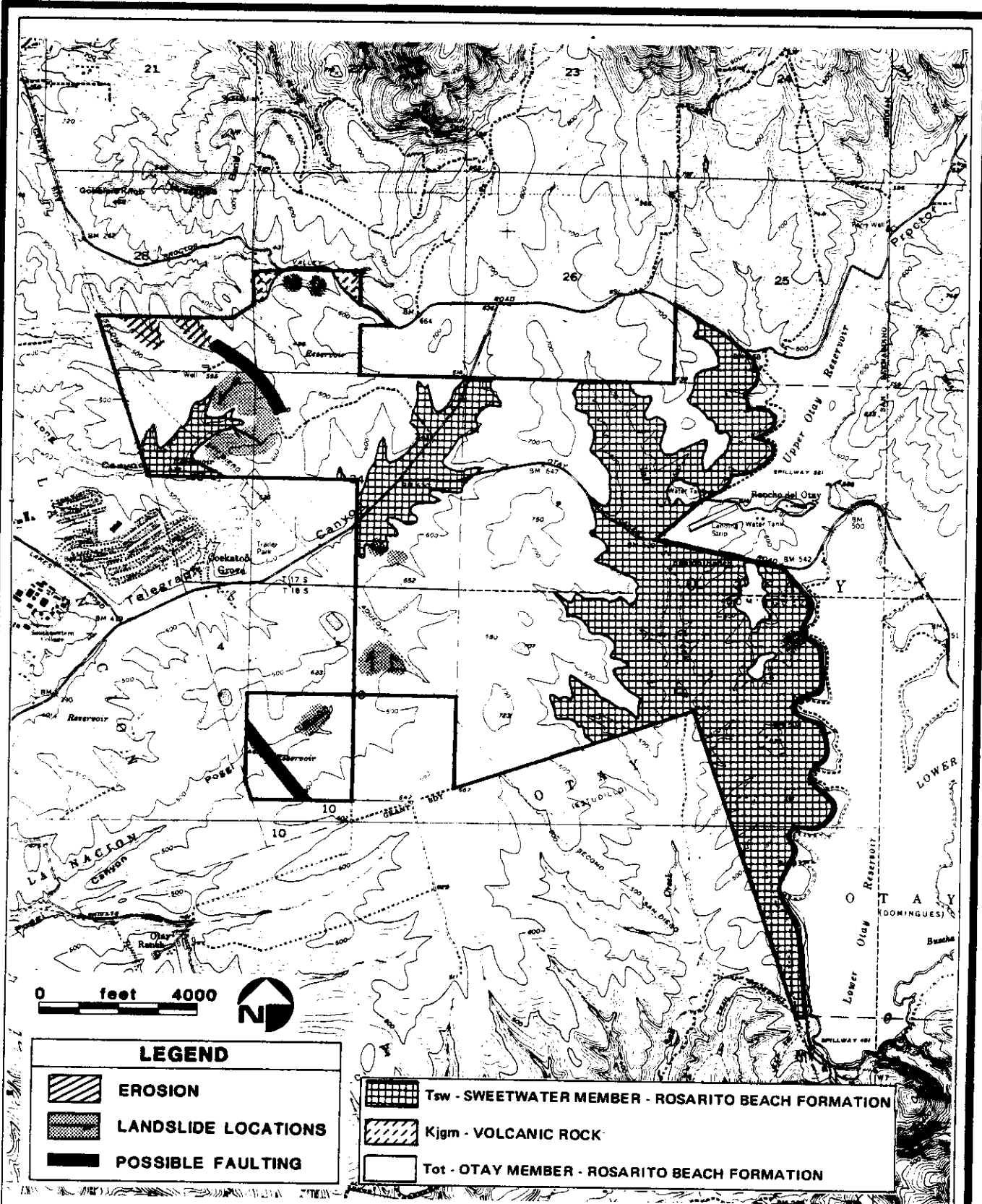
The project site is situated on an ancient marine terrace which has been moderately dissected by streams that have graded their channels to the present sea level. The eroded remnants of the terrace form rounded hills separated by canyons with side slope gradients of 10 to 25 percent. Topographic relief ranges from a low of 370 feet above mean sea level (MSL) on the canyon floors in the site's northwest corner to a high of 750 feet above MSL. The highest portions of the site, 700 to 750 feet above MSL, are along the crest of the north/south trending ridge in the center of the site that divides the Salt Creek, Telegraph Canyon and Poggi Canyon watersheds. Another north/south trending ridge along the site's eastern boundary separates the Salt Creek and Otay Lakes watersheds and reaches elevations of 600 to 650 feet along its crest. A third northeast/southwest trending ridge on the site's northwest corner has ridge crest elevations of approximately 700 feet and divides the Telegraph Canyon watershed from the Sweetwater River watershed.

Nearly the entire project site is underlain by weakly to moderately well cemented sandstones, claystones and conglomerates of the Rosarito Beach Formation (Elliott and Hart, 1977). Hard and dense volcanic rock of the Santiago Peak Formation outcrops in localized areas in the northwest part of the site. The lower slopes and valley bottoms contain slope wash and alluvial deposits derived from erosion of the Rosarito Beach Formation (see Figure 3-14).

There have been no detailed subsurface geotechnical investigations of the project site. The following discussion of bedrock engineering properties is based on generalized information on the geologic formations underlying the site.

Recent Alluvium (Qal). Recent alluvial soils occupy the lowermost topographic positions, primarily occurring in Salt Creek and Telegraph Canyon. The recent alluvial materials are expected to range from silts to pebbly sands under several inches to several feet of organic silts and clay. These materials

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SOURCE: Leighton & Associates

Geologic Formations and Constraints

FIGURE 3-14

may be compressible and could settle appreciably under superimposed loads. The areal extent of alluvium is minor in relation to the size of the project site.

Slopewash (Qsw). The slopewash soils consist of sandy clays ranging in thickness from a few inches to several feet which have accumulated on the lower slope areas. These clays are expected to exhibit high shrink-swell characteristics with changing moisture conditions.

Otay Member, Rosarito Beach Formation (Tot). The Otay Member of the Rosarito Beach Formation consists of poorly cemented, fine to pebbly grained, massive sandstones with interbeds of claystones. In localized instances the sandstones may be found to be well cemented. It is anticipated that grading of this formation can be accomplished with the aid of heavy rippers. Excavated materials are generally sandy and possess favorable characteristics for fill construction. The sandstones generally provide high load-bearing capacities and adequate foundation support. The claystones also generally provide adequate foundation support for residential construction. However, under artificially altered conditions, such as artificial irrigation, the claystone may exhibit expansive characteristics.

Sweetwater Member, Rosarito Beach Formation (Tsw). The Sweetwater Member is geologically older than the Otay Member and, in general, consists of coarse grained to pebbly massive sandstones. Locally, the Sweetwater Member is conglomeratic. The degree of cementation is weak to moderate. Some interbedding of claystones or siltstones may also be present in the Sweetwater sandstones.

It is anticipated that these materials can be excavated with the aid of heavy rippers, and that the resulting granular excavation materials possess favorable characteristics for construction. Areas of localized conglomeratic deposits, especially in the southeastern part of the site, may prove to be sources of sub-base and even base materials for street and road construction (Leighton and Associates, 1979).

Volcanic Rocks (Kjgm). The northwest part of the site contains areas of volcanic rocks, predominantly basalt and andesite, but breccias and tuffs are also present. These rocks are weathered and highly fractured in the upper several feet; the underlying unweathered rocks are hard and dense. Excavation of the hard, dense volcanic rock requires blasting; the excavated materials are generally suitable for use as broken or crushed rock (Leighton and Associates, 1979).

There are no faults known to exist beneath the project site. However, air photo analysis shows that at least two linear features, which indicate the possible existence of fault traces, traverse the site (see Figure 3-14) (Leighton and Associates, 1979). The closest mapped fault to the site is the La Nacion Fault Zone, located three miles to the west. This fault has not exhibited activity during historic time and shows no evidence of movement within the past 11,000 years (Elliott and Hart, 1977). However, because the La Nacion fault displaces sediments younger than one million years, it is considered potentially active and capable of producing a maximum credible earthquake of 6.75 on the Richter Scale (Greensfelder, 1974). An earthquake of this magnitude could result in a Modified Mercalli Intensity of VIII or IX. However, since

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there is no evidence of recent movement along the La Nacion Fault Zone the probability of a major earthquake on this fault is very remote. The Chula Vista area has had a low historic seismicity record and is considered relatively stable tectonically. No earthquakes greater than 4 on the Richter Scale have been recorded within a 40-mile radius of the project site (Real et al., 1978).

Active fault zones that could pose seismic risk to the project site are the off-shore San Clemente fault zone (trending northwest/southeast immediately east of San Clemente Island), the Elsinore Fault, located 50 miles to the northeast and the San Andreas fault zone in the Imperial Valley. The maximum credible earthquake on these active faults could produce modified Mercalli Intensities of VII at the project site.

Earthquake damage occurs primarily from groundshaking. The project site is almost entirely underlain by bedrock, which past experience has shown to be less severely affected by seismic activity than other areas such as recent alluvium or terraces. Because of its geology and its relatively distant location from recognized active faults, the site is perhaps more favorably situated than other areas of San Diego County (Leighton and Associates, 1979).

The only portions of the site where there is a potential for seismically induced soil liquefaction is within canyon bottoms where recent alluvium may occur in association with high groundwater conditions for short periods of time.

An aerial photographic analysis of the site conducted by Leighton and Associates (1979) suggests that several minor landslides may exist (Figure 3-14). Several features that are suggestive of landsliding and soil slumping are evident, although no evidence of large-scale landsliding was found.

3.15.2 Impacts

The sandstone and volcanic bedrock underlying the site would generally provide adequate foundation support for the proposed residential structure and could be graded without great difficulty. However, claystone interbeds may exhibit expansive characteristics and require some remedial foundation measures.

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 to future development. Two possible fault traces have been tentatively identified from aerial photographs. If these lineations are indeed fault traces, they may be associated with the La Nacion Fault zone. A more detailed investigation should be conducted to ascertain the potential activity of these inferred fault traces.

There is a possibility that future earthquake activity would 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.

Several ancient landslides and possible landslide features have been identified on the site by Leighton and Associates (1979). The landslide features identified to date are relatively small in size and cover only a minor percentage of the project site area. Preliminary information indicates that most, if not all, of the landslide mass can be removed or stabilized, by buttressing, without great difficulty during normal grading operations. However, detailed subsurface geotechnical investigations are necessary to definitely establish the areal extent, depth, and potential stability hazards posed by the tentatively identified landslide masses.

The depth to the regional groundwater table on the site is estimated to be greater than 100 feet below the project site ground surface. This depth, together with the dense and cohesive nature of the underlying soils on the site, generally precludes the possibility of liquefaction. There is, however, a potential for the occurrence of liquefiable soils (loose, clay-free sands) in localized areas of the alluvial deposits on the valley floors in combination with perched groundwater during the rainy season. The existence or scale of this potential hazard cannot be determined without a detailed subsurface geotechnical investigation.

3.15.3 Mitigation

A detailed subsurface soil and engineering geology investigation should be conducted to provide grading, foundation, and construction recommendations prior to final project design. Such an investigation should include:

- Drilling, logging, and sampling of drill holes to evaluate the bedrock composition and structure.
- Excavation, logging, and sampling of test pits and trenches in areas of suspected landslides or fault traces.
- In situ and laboratory testing of soils to establish engineering characteristics.
- Preparation of grading specifications and foundation design criteria.
- Definition of areas where slope buttressing may be required and provide buttress designs.
- Determination of the relevancy of groundwater conditions in relation to grading and slope stability and provide subdrain requirements.
- Definition of areas requiring soil removal and recompaction.
- Recommendations for seismic design parameters.

The design and construction of buildings in conformance with the State 1976 Uniform Building Code would effectively minimize the hazards on ground-shaking 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 by the recommended geotechnical investigation.

Areas found to contain ancient landslides during future geotechnical investigations could probably be stabilized by buttressing and subdrain installation or removed and recompacted during grading operations. If landslide masses that are too large to be stabilized practically are found in future investigations, they should be designated for open space use.

3.15.4 Analysis of Significance

Available geological data indicates that there are no major geologic constraints on the project site that would preclude development and no significant impacts are anticipated. However, geologic constraints often cannot be disclosed by a surface reconnaissance. A detailed subsurface investigation is necessary to determine definitively whether constraints are present. Following the recommendations of the investigation report would avoid significant impacts.

3.16 SOILS

3.16.1 Existing Conditions

The U.S. Department of Agriculture Soil Conservation Service (1973) has classified 80 to 90 percent of the project site soils as belonging to the Diablo clay series (DaC, DaD, DaE) and Diablo clay-Olivenhain cobbly loam complex (DoE). The remaining site soils are classified as Huerhuero Loam (HrE₂), Linne clay loam (LsE), Olivenhain cobbly loam (OhE), and Salinas clay loam (SbC).

The Diablo clay soil series consist of well drained clays, generally 1.5 to 3 feet thick, that have formed from weathering of soft calcareous sandstone and shale. These soils have a slow permeability, a high shrink-swell potential, and are considered to be unsuitable for use as engineering material. Agricultural suitability of soils is discussed further in Section 3.2.

Because of the high shrink-swell potential of Diablo clay, development for building structures in areas containing these soils requires removal of the top 2 to 3 feet of clays and replacement of competent engineered fill.

The Huerhuero, Linne and Olivenhain series soils are well to moderately well drained loam soils which have developed on calcareous sandstone and shale. These soils occur on slopes of 9 to 30 percent in the project area and generally contain a clay substratum. The Salinas series soils consist of well to moderately well drained clay loams that formed in sediments washed from Diablo, Linne, Huerhuero, and Olivenhain soils. This soil occurs on the valley bottoms in the project area and have slopes of 2 to 9 percent.

These loamy soils generally have a moderate shrink-swell potential and more suitable engineering characteristics than the Diablo clay. Table 3-1 summarizes the principal characteristics of the project site soils.

3.16.2 Impacts

The existing surficial soils on the project site are highly expansive in nature and unsuitable for foundation support. The soils do not, however, represent a significant constraint to development because the surficial expansive soil layer can be removed to a depth of 2 or 3 feet during the construction period, utilizing conventional grading procedures, and replaced with competent compacted fill.

3.16.3 Mitigation

Measures recommended in Section 3.15.1 above would mitigate any adverse soil conditions and thereby avoid significant impacts.

3.17 GROUNDWATER

3.17.1 Existing Conditions

Available data indicate that there are no substantial quantities of groundwater existing beneath the project site. The site is underlain at depth by dense, impermeable volcanic rocks. The topographic configuration of the overlying sandstone deposits indicates that they could not contain a large quantity of groundwater in a saturated condition. There are no wells on the project site. There were no springs or areas of groundwater seepage observed on the site during field reconnaissance. If a permanent water table does exist it is probably more than 100 feet below the ground surface (California Department of Water Resources, 1967). Perched groundwater conditions will exist in the alluvial deposit on the valley bottoms for short periods of time during the rainy season.

3.17.2 Impacts

Development of the project site for residential or commercial use would not affect local or regional groundwater conditions in the project site vicinity. There are no wells extracting groundwater from the site at the present time and groundwater is not proposed as a source of water supply in development plans. If a permanent water table does exist beneath the site, it is more than 100 feet below the ground surface (CDWR, 1967) and would be unaffected by urban development. The project site is not an important recharge watershed area for any local aquifers (CDWR, 1967) and, therefore, site development would not affect regional groundwater levels. The proposed man-made lakes in Telegraph Canyon and Salt Creek would lose a percentage of their water through subsurface seepage into the alluvial deposits in the channel bottoms. The seepage would drain toward the Otay River and San Diego Bay by subsurface saturated or unsaturated flow. The percolation of surface runoff in stream bed alluvium is a natural process which occurs under existing conditions and results in perched groundwater conditions for short periods of time during the rainy season. The man-made lakes would not significantly alter the natural subsurface drainage process nor affect the total quantity of seepage which exists under current conditions.

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The proposed wastewater reclamation program for irrigation would also not affect local or regional groundwater conditions. Irrigation is generally not applied in quantities that exceed the field capacity of the soil. Any reclaimed wastewater that does percolate into a deeper zone below the site would be purified by the same processes and in the same manner as is wastewater in a septic tank drain field.

3.17.3 Mitigation

No mitigation measures are necessary.

3.18 SURFACE DRAINAGE

3.18.1 Existing Conditions

The project site is situated in the watersheds of both the Sweetwater and Otay Rivers. These two watersheds have been designated as Zones 3 and 4, respectively, of the San Diego County Flood Control District. Surface runoff is drained from the site through five tributary watercourses. These are Salt Creek, Poggi Canyon, Telegraph Canyon, Long Canyon and Proctor Valley (see Figure 3-12). In addition, approximately 410 acres on the site's eastern margin are situated on the east-facing slope overlooking Otay Lakes and drain directly into the reservoir through several small canyons. The south flowing Salt Creek and southwest flowing Poggi canyon are tributary to the Otay River, located 3 miles south of the site, and converge with the river at points downstream from the Otay Lakes Reservoir. Approximately 619 acres of the site drain directly into San Diego Bay through the City of Chula Vista via Telegraph Canyon. The northwest flowing Long Canyon and Proctor Valley are within the Sweetwater River watershed. These drainageways converge with the Sweetwater River at a point within the boundaries of the Chula Vista Municipal Golf Course. All of the stream channels on the site are ephemeral in nature and contain appreciable amounts of flowing water only during or immediately after prolonged or intense rainstorms. Small farm reservoirs have been created on site by construction of earthen dams across stream channels of Long Canyon, Proctor Valley, Poggi Canyon and Salt Creek. There are no flood prone areas on the project site, although downstream areas of Telegraph Canyon, the Otay River, Long Canyon and the Sweetwater River are prone to flooding (HUD, 1977).

Existing flooding problems in the City of Chula Vista are largely confined to localized areas in the western sections of the City, where roadway culverts are undersized to convey the larger runoff flows which have resulted from recent urban development. There is a potential for flooding of developed areas within the floodplains of the Sweetwater and Otay Rivers. During the winter of 1978 a dike had to be built to protect residences and businesses in the Sweetwater floodplain.

As noted previously, the project site is in 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 Control District. No major facilities exist or are proposed within the site area. Both plans assumed open space/agricultural uses in the study area.

Table 3-8 presents the 50 year recurrence peak discharges in the major drainage ways of the project site, under existing and ultimate conditions.

A serious flood hazard area in terms of the risk of property damage exists at the mouth of Long Canyon, where the stream flow must pass through a culvert beneath Bonita Road before converging with the Sweetwater River. The maximum capacity of this culvert is too low to convey larger flood discharges in Long Canyon. The existing drainage facilities within the lower reach of Long Canyon are limited to a concrete channel 8 feet wide and 6 feet deep which runs along the southwesterly side of Acacia Avenue for a distance of 1200 feet upstream from Bonita Road. The top of the side walls of this channel are roughly 8 inches above the level of Acacia Avenue and up to 4 feet above the adjacent residential property along Palm Drive to the southwest. Any overflow of this inadequate channel would cause flooding of the properties to the southwest at lower elevations. Upstream of the concrete channel, the existing natural channel is inadequate to contain larger peak flows. Overflows pass down Palm Drive and the abutting residential property. The San Diego County Flood Control and Water Conservation District is currently working on a project to alleviate this flood problem (Howard, 1981). The plan involves increasing the capacity of the culvert beneath Bonita Road, construction of underground pipes adjacent to the existing channel to help convey upstream flow to the culvert, and construction of an extension of the existing concrete lined channel for a distance of 1000 feet upstream. The improved drainage facilities would have a capacity equal to the 100-year peak flow and would cost approximately \$400,000 (1975 estimates). Financing of this project has been complicated due to the low assessed values of the existing property within Long Canyon, and the largely undeveloped condition of the watershed (Barbour Engineering Company, Inc., 1975). These drainage improvements in Long Canyon have been approved as part of the comprehensive flood control plan for Zone 3 of the County Flood Control District. However, there is no plan to implement the improvements in the immediate future due to lack of available financing (Hermes, 1981).

Northwest of Bonita Road, Long Canyon Creek converges with the Sweetwater River within the boundary of the Chula Vista Municipal Golf Course. The golf course has experienced flooding and sedimentation problems in recent years. A flood and sedimentation control plan for the golf course has been developed by Boyle Engineering Corporation (1980). The plan proposes construction of a sedimentation basin across Long Canyon Creek just above its confluence with the Sweetwater River. The basin would serve the purpose of preventing excessive silt loads from entering the drainage facility improvements proposed for the Sweetwater River Channel through the golf course.

A minor flood problem occurs along streets crossing Telegraph Canyon Creek, between the eastern limits of Chula Vista and the San Diego Bay for storms with greater than a 10-year recurrence interval, especially at the most easterly crossings. The capacity of most of the culverts at the crossings is approximately 1000 cubic feet per second (cfs). The areas behind each crossing act as retention basins, reducing the peak flow as it progresses toward the Bay. Lawrence, et al. (1964) recommended that an area along the channel at the eastern limits of Chula Vista be developed as a retention basin, to reduce the peak flow to the capacity of the existing culverts. Additional retention basins

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Table 3-8
STORM DISCHARGE FROM PROJECT DRAINAGEWAYS

Watershed	Watershed Area (acres)	Acres on Project Site (% of Watershed)	50-Year Frequency Discharge	
			Existing	Ultimate
<u>Salt Creek:</u>	3,186	1,150 (36%)	907	1,280
South of Otay Lakes Road			1,174	1,804
South of EastLake boundary (offsite)			1,893	3,129
Otay River junction				
<u>Telegraph Canyon:</u>	4,681	619 (13%)	281	283 *
South of EastLake boundary (onsite)			834	1,002
West of EastLake boundary (offsite)			1,522	3,241
East of Chula Vista to San Diego Bay				
<u>Long Canyon:</u>	1,151	228 (19%)	336	336 *
West of EastLake boundary (offsite)			1,231	1,360
At Bonita Road				
<u>Poggi Canyon:</u>	2,905	402 (14%)	381	381 *
West of EastLake boundary (offsite)			1,648	2,570
West of Oleander Avenue			1,648	2,658
Otay River junction				
<u>Proctor Valley (Fong Canyon):</u>	4,073	286 (7%)	245	245 *
West of EastLake boundary			1,127	1,142
Long Canyon/Proctor Valley junction			2,787	3,897
Sweetwater River junction				

* Assumes no development of the project site.

Source: Lawrence, Fogg, Florer and Smith, 1964.

were also recommended as development proceeded in the Telegraph Canyon watershed to handle the increased runoff.

The U.S. Army Corps of Engineers is presently working on a project in cooperation with the City of Chula Vista to increase the capacity of the Telegraph Canyon channel between 4th Avenue and Interstate 5 to a capacity equal to the 100-year flood under ultimate conditions. This project is in the preliminary planning stages. In addition, the City of Chula Vista will probably require that retention basins be constructed in Telegraph Canyon east of the City limits for future developments within the watershed (Harshman, 1981). These measures, if implemented, should alleviate the flooding problems in Telegraph Canyon.

An open concrete channel drains the lower reaches of Poggi Canyon through the residential area immediately north of its junction with the Otay River. The concrete channel and roadway underpasses have design capacity adequate to contain the 50-year flow under ultimate conditions, although retention basins may be required by the City for future development in upstream areas of the watershed to insure that peak flows do not increase (Harshman, 1981). Salt Creek and the area on the eastern margin of the project site adjacent to Otay Lakes presently contain no drainage facilities other than culverts beneath Otay Lakes Road and Wueste Road.

Proctor Valley contains residentially developed areas only in the lower reaches near its confluence with the Sweetwater River. Flooding problems associated with drainage facilities occur in this area of the County and in the Chula Vista Municipal Golf Course.

3.18.2 Impacts

With development of the project site for urban land use, large areas of land would be rendered impervious by roads, walkways, buildings, and parking lots. As a result, the area in which rainfall can infiltrate into the soil would be reduced and overland flow would take place readily on the relatively smooth impermeable surfaces. The construction of an urban stormwater drainage system would concentrate drainage in this portion of the watershed and thereby reduce the time necessary for runoff to reach major drainage channels. The net results of these changes would be that a higher proportion of rainfall would be translated into runoff, the runoff would occur more quickly, and the peak runoff flow from the site would be larger for a given rainfall intensity than under the existing agricultural and open space land use. Because the project site soils consist predominantly of expansive clays which have very slow infiltration rates when thoroughly wetted, runoff discharges from the project site during large magnitude storms (10-year to 50-year recurrence storms) can be expected to increase approximately 15 to 30 percent over 1964 levels (Hollis, 1975; Barbour Engineering Company, Inc., 1975). The increases in runoff would not, however, be accompanied by increased sediment loads. The change from agriculture to suburban and urban land use would greatly decrease sediment yields (Knott, 1973; Guy, 1975).

Since the project site is situated on five different tributary drainage basins and is positioned in the headwater regions of these basins, runoff from the

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project site would not be able to concentrate on the site itself in sufficient quantities to create a flooding problem onsite, if drainage facilities are properly designed. However, several areas downstream of the site are currently subject to moderate flooding problems and the increase in peak discharges of runoff from the project site could aggravate these problems.

Because the project site area represents a very small percentage of the Otay River and Sweetwater River watersheds, the increase in peak runoff from the site would represent only an incremental increase to the existing flood discharge magnitudes of the major river channels. Although the increased runoff contribution from the site would not significantly increase peak flood discharges in the Sweetwater and Otay Rivers, the increase could be considered significant in a cumulative context because the rivers are currently subject to moderate flooding problems. There is a greater concern regarding Sweetwater than Otay due to existing development in the Sweetwater floodplain.

Development of the area in the northwest corner of the site that drains into Long Canyon could aggravate the existing drainage problem southeast of Bonita Road. However, since the project site is currently used for dry barley farming, development for low density residential land use can be expected to greatly decrease sediment loads in the existing levels (Knott, 1973; Guy, 1975). The proposed project would not, therefore, adversely affect the proposed sedimentation basins planned to be placed in Long Canyon on the north side as part of a flooding and sedimentation control project for the Chula Vista Municipal Golf Course (Boyle Engineering, 1980).

Runoff from the central 640 acres of the site that are drained by Telegraph Canyon could pose a more significant drainage problem because the project site would represent a much larger proportion (14 percent) of this 4600 acre watershed. Drainage analysis of this Telegraph Canyon watershed assumes open space or agricultural land use in most of the headwater regions including the project site. Development of the watershed for urban use would result in an underestimation at selected locations of projected 50-year recurrence peak discharge, as calculated by Fogg (1964). Increases in runoff from the project site would not significantly impact existing drainage facilities in Poggi Canyon, Salt Creek, or on the eastern margins of the site above Otay Lakes. These tributary drainage basins are substantially undeveloped and do not contain extensive drainage facilities or development.

3.18.3 Mitigation

Without specific development plans, no specific measures are presented to mitigate potential drainage problems associated with urban development of the site. Specific project plans will be subject to review and approval of the City of Chula Vista Engineering Department and the County of San Diego Flood Control District. At that time the project applicants may be required to construct retention basins onsite to ensure that peak runoff discharges from the site, following development, do not exceed predevelopment levels. Preliminary plans for the proposed project indicate that man-made lakes would be created onsite by placing small earthen dams across Telegraph Canyon and Salt Creek. These lakes could be designed to be effective flood retention basins.

The project applicant may also be required to install drainage facilities or pay for a share of the necessary drainage improvement costs in Long and Telegraph Canyons downstream from the project site.

At the time of preparing more detailed design and engineering plans, and prior to approval of each sectional development plan, detailed hydrological analyses will be conducted to determine the size, capacity, alignment, and design of any flood control facilities necessary to protect the site from a 50-year storm flow and to mitigate the downstream impacts of any increased rate of runoff from the site. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, SD-1 through SD-3.

3.18.4 Analysis of Significance

Development of the proposed project would increase peak runoff over the calculation based on agricultural use of the site. This increase could significantly impact downstream drainage facilities which are currently experiencing flooding problems. The use of retention basins to control peak runoff discharge is possible to avoid this significant impact.

3.19 MINERAL RESOURCES

There are no known or expected mineral deposits onsite. The County of San Diego's Resource Conservation Element does not show any sand or gravel deposits onsite. However, the City of Chula Vista Conservation Element's "Sand and Gravel" diagram illustrates areas along Otay Lakes as containing gravel deposits.

Review of existing literature and field reconnaissance of the area by Leighton and Associates indicates that there are no economically valuable sand or gravel deposits onsite. For further information, refer to the Leighton and Associates letter report of November 10, 1980, which is on file with the City of Chula Vista.

3.20 WATER QUALITY

3.20.1 Existing Conditions

There have been no previous studies on water quality characteristics of surface runoff or groundwater on the project site. However, the quality of surface runoff is expected to be typical for runoff occurring within an agrarian and natural grassland landscape. The ephemeral streams probably carry high suspended and dissolved solids load dominated by nutrients derived from crop fertilizers and livestock grazing. Groundwater in marine sedimentary rocks in the San Diego Region is typically saline in character (California Department of Water Resources, 1967). The Otay Lakes Reservoirs are used as storage for municipal and agricultural water supplies and are owned by the City of San Diego. The reservoir experiences periodic algae blooms as a result of the combination of high nutrient concentrations derived from both the Colorado River water and local surface runoff and high water temperatures (CPO, 1980).

The San Diego Regional Water Quality Control Board (RWQCB), in its "Comprehensive Water Quality Control Plan Report, 1978 Amendments, San Diego Basin (9)," identifies existing beneficial uses for inland surface waters within the entire Lower Sweetwater hydrographic subunit as industrial service supply, non-contact water recreation, warm freshwater habitat, wildlife habitat, and preservation of rare and endangered species. The RWQCB identifies the existing beneficial uses for surface waters of the Otay hydrographic subunit as agricultural supply, non-contact water recreation, wildlife habitat, and preservation of rare and endangered species. The Otay Lakes are within the Dulzura hydrographic subunit.

The RWQCB does not list any future potential beneficial uses for the Lower Sweetwater subunit, and lists only industrial service supply as a future potential beneficial use of surface waters within the Otay subunit.

The RWQCB identifies existing beneficial uses for groundwater within the Lower Sweetwater subunit as municipal and domestic supply, agricultural supply, and industrial service supply. The existing beneficial use for groundwater in the Otay subunit is industrial service supply. Municipal and domestic supply and agricultural supply are also listed as beneficial uses, but the RWQCB points out that the water quality does not meet the criteria for municipal use, agricultural irrigation, or livestock watering.

Both subunits show a future potential beneficial use for groundwater recharge in the Otay and Sweetwater River valleys.

3.20.2 Impacts

Development of the site for urban uses would result in a change in the type of contaminants contained in surface runoff. Concentrations of dissolved solids such as nutrients and bacteria levels associated with agricultural use would be expected to be decreased while contaminants such as oil, grease, and heavy metals from automotive sources would be greatly increased. Sediment loads of runoff from the site would decrease significantly from existing levels. The impervious surfaces, storm drains and planted lawns associated with urban land use would afford greater soil erosion protection than the bare or partially vegetated ground associated with the existing agricultural land use. Concentrations of suspended solids could decrease to less than 5 percent of existing levels (Knott, 1973). The project would not affect the proposed sedimentation basins planned to be placed in Long Canyon on the north side of Bonita Road as part of a flooding and sedimentation project in the Chula Vista Municipal Golf Course, nor aggravate existing siltation problems in the segment of the Sweetwater River through the Golf Course.

Water quality in Sweetwater River, Otay River, and San Diego Bay would not be measurably degraded by runoff contaminants from the project site. These water bodies presently receive large quantities of runoff contaminants from existing urban and agricultural land uses within their watershed area. The contaminants derived from the project site would represent a very small incremental contribution to the total contaminant load carried into San Diego Bay from the South San Diego County area. In addition, concentrations of contaminants such as biostimulants, pesticides, and bacteria would decrease from

existing levels as a result of the change from agricultural to urban land use. The residential land use proposed for the project site produces relatively low levels of urban runoff contaminants such as oil; grease and heavy metals in comparison to the higher density urban areas presently existing in downstream areas.

The primary water quality issue of the proposed project involves the possible discharge of urban runoff contaminants from developed areas on the site's eastern margin into the Otay Lakes Reservoir. Preliminary drainage plans for the project indicate that storm drainage from urbanized surfaces on the eastern margin of the site that drain into Otay Lakes would be redirected via storm drains to a discharge point downstream from the reservoir. Such a plan would effectively mitigate the potential water quality impact on the reservoir but would require concurrence by landowners affected downstream.

The proposed wastewater reclamation program, which would entail the use of treated wastewater for irrigation, would not create a significant water quality impact on the site or in downstream areas with the possible exception of the slopes along the site's eastern border overlooking the Otay Lakes Reservoirs. Nutrient or bacteria contents in the wastewater not removed by initial treatment process would be eliminated by natural absorption and oxidation processes of the irrigated soil and plants. However, if heavy rainfalls occur immediately following irrigation on the site's eastern border, some nutrient or bacteria loads from the wastewater could be washed into the Otay Lakes Reservoirs, which are used for storage of municipal water supplies. This situation would be unlikely to cause a significant water quality impact because bacterial loads in the wastewater would be essentially eliminated by chlorine treatment during primary treatment processes and biostimulant concentrations would be diluted by the rainwater. Biostimulant effects on water quality are also more important during the dry season when large evaporation losses of reservoir water greatly increase nutrient concentrations. Nevertheless, there may be some restriction placed on irrigation with treated wastewater on the site's eastern margin by State or County authorities to prevent any possibility of reservoir contamination.

3.20.3 Mitigation

Specific project plans for surface drainage into Otay Lakes and the wastewater reclamation program will be subject to review and approval by the Regional Water Quality Control Board and the County Health Department. At that time the project applicant may be required to divert all surface runoff from urban areas away from the reservoir and restrict the use of wastewater for irrigation on the slopes draining into the reservoir. No other impacts were identified and no additional mitigation is necessary.

3.20.4 Analysis of Significance

Urbanization of the project site as proposed would not have a significant impact on water quality. If a wastewater reclamation program is developed, it would be subject to approval and monitoring by the RWQCB. Disposal of the treated effluent may be restricted along the eastern margin of the property which drains into Otay Lakes. No significant impact is anticipated.

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3.21 CLIMATE/AIR QUALITY

3.21.1 Existing Conditions

Meteorology

The climate and local meteorological conditions at and near the project site are typical of Mediterranean-type climates throughout coastal-influenced portions of Southern California. The two dominant factors which determine local conditions are the seasonal positions of the subtropical Pacific High, and the proximity of the site to moderating influences of the Pacific Ocean, located approximately 10 miles to the west.

Local climatic conditions are generally characterized by mild, moist winters and warm, dry summers. Temperature extremes and seasonal variation are moderated by oceanic influences. Annual temperatures range from a daily summer high average maximum of 80°F to a nightly winter low average minimum of 40°F. Only 15 days per year have a high exceeding 89°F and fewer than 8 days have minimums at or below freezing. Precipitation averages approximately 10 inches annually, although there is usually considerable variation from year to year and month to month, depending on the position of the winter maritime Pacific stormtrack. Over 90 percent of precipitation occurs during the rainy season from November to April.

Air quality in the area is strongly influenced by the direction and strength of local winds. Although long-term wind data is unavailable from the proposed site, recordings taken at Brown Field, approximately 5 miles south of the site, provide sufficient information for interpretation. Daytime winds generally are from a westerly direction, averaging 6-8 mph. In the evening the prevalent sea breeze is often reversed, and a light (2-4 mph average) westerly-flowing land breeze is established. Calms are common at night and during transitional periods after dusk and before dawn, particularly in the summer. Thus, the quality of air during the day is usually a function of the incoming air (and associated pollutants) carried eastward from the ocean and Chula Vista area, while nighttime air quality is more a function of local emission patterns within the proposed project area and the degree of air stagnation.

Atmospheric inversions also play a major role in air quality conditions. Recent meteorological data recorded at Kearny Mesa, 15 miles to the northwest of EastLake, provide typical inversion characteristics for the region. During cool-weather nights, calm air near the surface cools by ground contact while air aloft remains warmer; this forms a radiation-type inversion which traps local low-level pollutants and emissions (e.g., vehicular exhausts); normally such inversions exhibit highly localized concentrations of pollutants and are quickly dispersed by winds and warming after sunrise. About 70 percent of winter nights in the area have radiation-type inversions capable of creating localized pollutant stagnation. During warm-weather months, onshore flows of cooler, denser marine air override the warmer overland air and create marine-subsidence inversions along the coast. This type of inversion allows for good local mixing and upward movement of pollutants near emission sources, but traps and concentrates these materials between the inversion base and top. As this air is carried by sea breezes eastward from the ocean over urbanized

areas (such as Chula Vista), each emission source adds additional pollutants to the established inversion layer, without dilution from above. When strong sunlight reaches trapped oxides of nitrogen and reactive hydrocarbons, the photochemical smog so typical of Southern California's summer months is created. These concentrations tend to be further increased by local topographic conditions, such as surrounding mountains, which inhibit eastward dispersal. About 75 percent of warm-weather days in the San Diego area experience marine-subsidence inversions capable of creating unhealthful air quality conditions at and around EastLake.

Ambient Air Quality

Pollutants traditionally of concern in the San Diego region are ozone, nitrogen oxides, carbon monoxide, and total suspended particulates. Although recent gains have been made, the area still experiences violations of air quality standards for each of the above pollutants.

Only limited air quality data exist for the project specific area. The closest monitoring stations to the proposed site are located in Chula Vista and Brown Field. Only 2 years of data (mid-1975 - mid-1978) exist for the Brown Field station. It should be noted that because the project site is actually some distance removed from the monitoring stations, the actual air quality of the EastLake site may differ from the points where the data were recorded. In the absence of other data, however, the values presented in Table 3-9 will be assumed representative of the project area.

A comparison of the recorded concentrations presented in Table 3-9 with the air quality standards presented in Table 3-10 indicates that the pollutant of major concern in the area is ozone. Violations of the state 1-hour standard of 10 pphm and the federal 1-hour standard of 12 pphm have been regularly recorded at both monitoring stations.

In addition to violations of the 1-hour ozone standard, exceedences of the California 1-hour standard of $100 \mu\text{g}/\text{m}^3$ for particulates have been recorded at both the Chula Vista site (in 1977 and 1979), and the Brown Field station (in 1976 and 1977). Recorded total suspended particulate concentrations at these sites have not exceeded the federal 1-hour standard of $260 \mu\text{g}/\text{m}^3$, however.

The only other violation recorded at either station was of the California 1-hour standard for nitrogen dioxide. The maximum hourly concentration of 26 pphm recorded at Chula Vista in 1977 minimally exceeded the California standard of 25 pphm.

Concentrations of carbon monoxide and sulfur dioxide recorded at both stations have been within state and federal standards for all averaging periods.

Regulatory Framework

Regulatory authority for air quality in San Diego County exists at the federal, state, and local levels of government. Following is a description of each relevant agency's responsibility and policies in attaining air quality standards.

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Table 3-9

AMBIENT AIR QUALITY IN THE EASTLAKE VICINITY¹

Pollutant	Averaging Period	Units	Brown Field			Chula Vista		
			1976	1977	1978	1977	1978	1979
Ozone	1-hour ²	pphm	19	18	17	21	20	22
Nitrogen Oxides	1-hour ²	pphm	11	16	11	26	23	19
	Annual ²	pphm	2	2	2	3	3	3.4
Sulfur Oxides	1-hour ²	pphm	--	--	--	9	7	9
	24-hour ³	pphm	--	--	--	0.6	1.6	2.2
	Annual ²	pphm	--	--	--	0.1	0.2	0.3
Carbon Monoxide	1-hour ²	ppm	3	3	2	9	8	11
	8-hour ³	ppm	2	2	1.4	6	4.1	4.4
Total Suspended Particulates	24-hour ²	ug/m ³	127	155	--	106	97	102
	Annual ²	ug/m ³	57	49	38	58	55	58

1. Values are the highest recorded concentrations for each pollutant at the given stations.
2. Source: SDCAPCD, 1977; 1978; 1979; 1980.
3. Source: CARB, 1977; 1978; 1979; 1980.

Table 3-10

AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards ¹ Concentration ^{3,6}	National Standards ²	
			Primary ^{3,4}	Secondary ^{3,5}
Oxidant (Ozone)	One Hour	0.10 ppm (200 $\mu\text{g}/\text{m}^3$)	235 $\mu\text{g}/\text{m}^3$ (0.12 ppm)	Same as Primary
Carbon Monoxide	Twelve Hours	10 ppm (11 mg/m^3)		
	Eight Hours	—	10 mg/m^3 (9 ppm)	Same as Primary
	One Hour	40 ppm (46 mg/m^3)	40 mg/m^3 (35 ppm)	
Nitrogen Dioxide	Annual Average	—	100 $\mu\text{g}/\text{m}^3$ (0.05 ppm)	Same as Primary
	One Hour	0.25 (470 $\mu\text{g}/\text{m}^3$)	—	—
Sulfur Dioxide	Annual Average	—	80 $\mu\text{g}/\text{m}^3$ (0.03 ppm)	—
	24 Hours	0.05 ppm ^{7,8} (131 $\mu\text{g}/\text{m}^3$)	365 $\mu\text{g}/\text{m}^3$ (0.14 ppm)	—
	Three Hours	—	—	1,300 $\mu\text{g}/\text{m}^3$
	One Hour	0.5 ppm ⁸ (1,310 $\mu\text{g}/\text{m}^3$)	—	—
Suspended Particulate Matter	Annual Geometric Mean	60 $\mu\text{g}/\text{m}^3$	75 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$
	24 Hours	100 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$	150 $\mu\text{g}/\text{m}^3$
Sulfates	24 Hours	25 $\mu\text{g}/\text{m}^3$, ⁸	—	—
Lead	30-Day Average	1.5 $\mu\text{g}/\text{m}^3$	—	—
	3-Month Average	—	1.5 $\mu\text{g}/\text{m}^3$	—
Hydrogen Sulfide	One Hour	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	—	—
Hydrocarbons (corrected for Methane)	Three Hours (6-9 a.m.)	—	160 $\mu\text{g}/\text{m}^3$ (0.24 ppm)	Same as Primary
Ethylene	Eight Hours	0.1 ppm	—	—
	One Hour	0.5 ppm		
Visibility-Reducing Particles	One Observation	insufficient to reduce the prevailing visibility to less than 70%		

Notes:

- California standards are values that are not to be equaled or exceeded.
- National standards, other than those based on annual geometric means, are not to be exceeded more than once per year.
- Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of HG (1013.2 millibars). In this table, ppm refers to ppm by volume, or micromoles of pollutant per mole of gas.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect public health. Each state must attain the primary standards no later than three years after the state's implementation plan is approved by the Environmental Protection Agency (EPA).
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after their implementation plan is approved by the EPA.
- Prevailing visibility is defined as the greatest visibility which attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.
- This state standard is violated if there is also a simultaneous violation of the state one-hour oxidant standard or the state 24-hour suspended particulate matter standard.
- California SO₂ and sulfate standards are currently being challenged in the courts. A Superior Court judge in Los Angeles has ruled that CARS must rescind the SO₂/Sulfate standards. CARS has announced that it will appeal the decision and that the standards will remain in effect pending outcome of the appeal.

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Federal Authority - The Environmental Protection Agency (EPA)

In accordance with the Clean Air Act, National Ambient Air Quality Standards (NAAQS) were established to protect the public health and welfare. The EPA has developed standards for the six primary pollutants and lead. To maintain these standards, the EPA has developed an Emission Offset Policy to allow development in nonattainment areas, and the Prevention of Significant Deterioration (PSD) regulations to ensure that air quality in attainment areas will remain within the standards. These programs apply to major stationary emission sources, therefore it is not expected that the PSD of offset policy would apply to the proposed project. However, the single most important national air quality goal is attainment and maintenance of the NAAQS. Thus, any type of project which would interfere with the attainment or maintenance of the standards would be inconsistent with the EPA's primary objective. As noted in Section 3.4.1, San Diego's air quality will be considered in the allocation of federal funds for expansion of the Point Loma sewage treatment facility.

State Authority - Air Resources Board (ARB)

As is the case with the EPA, the primary purpose of the ARB is to ensure that all areas of California will attain and maintain the federal AAQS by 1987. Documentation of the strategies by which the areas of California will be in attainment of the NAAQS by 1987 lies in the California State Implementation Plan (SIP). The ARB does not, however, prepare the strategies contained in the SIP for each area. Rather, ARB relies on each APCD or Air Quality Management District (AQMD) to develop their own strategies, and then ARB compiles each area's plan into one document, the SIP. Since the tactics contained in the SIP for the San Diego area are essentially the San Diego RAQS (with additional material such as manpower requirements, budgeting information, etc.), the following discussion of the consistency/inconsistency of the proposed project with the RAQS is applicable to the policies of the ARB.

Regional Authority - San Diego Air Pollution Control District (APCD) and San Diego Association of Governments (SANDAG)

The air quality regulatory authority lies jointly with the APCD and with SANDAG. The APCD is responsible for air pollutant monitoring, emissions inventorying, meteorological analyses, air quality modeling, and investigation, implementation and enforcement of technological controls. In addition, the APCD prepares the San Diego County Air Quality Maintenance Plan/Nonattainment Plan. SANDAG, comprised of city and county governments, is to ensure that air quality considerations are included in all land use and transportation plans developed by the represented governments and agencies. Jointly, the APCD and SANDAG have developed the San Diego County Regional Air Quality Strategy (RAQS) (1978), which analyzes regional emissions and air quality trends, and develops specific strategies which would be required in order to attain and maintain the NAAQS.

Many of the tactics contained in the RAQS are technical in nature. That is, they regulate the quantity of emissions allowed to certain industries, or require specific controls on sources. These tactics would not apply to the proposed project. The regional strategies are, however, based partially on

regional growth projections. Therefore, any growth in the area not foreseen in the projections would be inconsistent with the County's air quality strategies.

The most recent growth projections are contained in the Series V Regional Growth Forecasts. These forecasts are currently being adopted by the city and regional governments in the San Diego area, replacing the Series IVb forecasts. It is the projections contained in the Series IVb forecasts which were utilized in preparing the RAQS. However, the Series V projections, recently adopted by the City of Chula Vista, forecast less growth for the Chula Vista Planning Area than did the Series IVb forecasts. It has been estimated that under the new projection, the San Diego area may have trouble in attaining the NAAQS by the compliance date of 1987 set by the Clean Air Act (City of Chula Vista, 1980). Therefore, any growth in the Chula Vista Planning Area in excess of that projected by the Series V forecasts, even though the growth may be within the Series IVb projections, could create additional difficulties for attainment of the NAAQS in San Diego County.

Regional Air Quality Strategy

There are three tactics in the RAQS which are intended to reduce VMTs traveled, and the associated vehicular emissions, in the San Diego area. These are:

- Tactic T-1, Regional Land Use Pattern;
- Tactic T-2, Maximum Carpool and Vanpools with Incentives; and
- Tactic T-7, Maximum Bicycle System.

The Regional Land Use Plan tactic was developed to ensure that the various transportation and development plans prepared by local and regional authorities would consider the air quality implications associated with each plan. Specifically for the project area, the two plans of concern are the growth forecasts for Chula Vista and the area's transportation plan. The project's potential inconsistency with the growth forecasts and the air quality implications has been discussed in the previous section. Therefore, this discussion will focus on the project's consistency/inconsistency with the transportation plan for the area.

Two aspects of an area's transportation system are of concern in regards to air quality. These are the conditions and adequacies of the area's circulation network, and the availability of mass transit in the area.

Vehicles traveling on uncongested, well maintained roads will typically generate a smaller quantity of pollutants than will the same number of vehicles traveling the same distance on crowded, unmaintained streets. This is due to the fact that the average speed of a vehicle on uncongested roadways is higher than that of a vehicle on streets inadequate to handle the area's circulation. Because a vehicle's efficiency increases with the speed driven (up to a certain point), products of incomplete combustion, such as hydrocarbons and carbon monoxide, will be emitted in smaller quantities as vehicle speed increases.

An alternative to vehicular travel is mass transit. In response to the projected population increase in the South Bay area, the Metropolitan Transit Development Board (MTDB) has recently lengthened the I-805 transit corridor south to

Telegraph Canyon Road (Lerner-Lam, 1981), the major connector road to the proposed EastLake development. It is expected that express service on I-805 to Telegraph Canyon Road would begin by 1986.

Strategy T-2, aimed at expanding ridesharing through carpool, vanpool, and buspool incentives, would reduce total trip ends and the associated vehicular emissions. Carpool incentives include an easily available matching program (currently supplied by Commuter Computer in the San Diego area) and employer designation of preferential carpool parking areas. Vanpools could be initiated by employer purchase of vans for employee utilization. Operating expenses could either be entirely employee-paid or incentives could be offered through employer subsidies. Buspools would operate in the same manner as vanpools; however, rather than purchasing the vehicles, buses could be chartered from public or private transit operators. As with vanpools, employees could pay all expenses or employers could provide subsidies.

The goal of the Maximum Bicycle System is to encourage bicycle travel by implementing incentives for bicycle use. These incentives include the development of a regional bicycle route system, community route networks, feeder systems to public transit, employer incentives, and bicycle-user facilities such as bicycle parking, showers, and locker rooms. It should be noted that the City of Chula Vista has not adopted implementing ordinances for the provision of such facilities. The development of an alternative mode of travel would reduce VMTs and the associated vehicular emissions.

3.21.2 Impacts

A complete air quality analysis is included as Appendix B to this report. The full report includes an emissions inventory, a discussion of potential short and long term impacts from project development and suggested mitigation measures. The following analysis is a summary of that report.

The phases during which potential impacts could occur would be construction (1993), operation of the proposed community (1999), and combined construction/operation activities (1996). Table 3-11 summarizes the amount of pollutants generated by the proposed project. The largest quantities of pollutants would occur during the operation phase, followed by the combined construction/operation period. In relation to the other two phases of the project, construction activities in 1993 would result in a relatively small amount of emissions.

In all phases, carbon monoxide is, by far, the pollutant emitted in the largest quantities. Vehicles are a major source of most pollutants, particularly carbon monoxide. The largest portion of sulfur oxides are due to oil-fired electrical generating units. Finally, fugitive dust emissions during construction due to grading and earthmoving operations account for the majority of total suspended particulates during those phases.

Construction Phase (1993)

The majority of the air emissions would result from the combustion of diesel fuel or gasoline in the engines used to power heavy-duty equipment and

Table 3-11

SUMMARY OF PROJECT-RELATED EMISSIONS DURING CONSTRUCTION (1993), OPERATION (1999),
AND COMBINED CONSTRUCTION-OPERATION (1996) PHASES

Phase	Year	Source/Activity	Emissions (tons/year)				
			THC	NO _x	SO _x	CO	TSP
Construction	1993	All equipment and vehicles	20	44	5	502	120
Construction/ Operation	1996	Construction	13	26	3	331	82
		Operation (Stationary)	20	255	262	27	39
		Operation (Mobile)	416	583	58	3747	89
		(Total)	449	865	323	4,105	210
Operation	1999	Stationary Sources	24	311	322	33	48
		Mobile Sources	489	687	68	4,408	105
		(Total)	513	998	390	4,441	153

workers' vehicles. There would also be particulate emissions resulting from fugitive dust associated with earthmoving and grading operations. Some of the emission sources, such as heavy-duty construction equipment, would be distributed over an extended area since development would occur in several locations simultaneously. Other emission sources, such as workers' vehicles, would be spatially distributed over a wide geographical area between the construction site and the residences.

As is evident from Table 3-11 carbon monoxide would be the pollutant emitted in the largest quantities during construction. On an hourly and daily basis, carbon monoxide emissions are followed in magnitude by nitrogen oxide and total hydrocarbon emissions, with total suspended particulates and sulfur oxides occurring in lesser quantities. On an annual basis however, total suspended particulate emissions are second to carbon monoxide in quantities emitted, due largely to fugitive dust which accounts for 97.5 percent of all annual construction-related TSP emissions in 1993.

The construction of the proposed project may have a temporary minor impact on air quality in the immediate vicinity of the project site. Impacts will be due primarily to emissions from the construction equipment. Localized particulate matter and nitrogen oxide emissions may result in short-term violations of state and federal primary air quality standards during the construction period. However, these impacts, because of their temporary and intermittent nature, and the relatively low amounts of reactive emissions, are not expected to be significant. In addition, the emission sources would not be located at a single point -- workers' vehicles would travel between the site and their place of residence, and construction activity itself would occur at several locations within the development simultaneously. Thus the magnitude of impacts, should they occur, would be lessened due to the distribution of the emission sources.

Operations Phase (1999)

Stationary Emission Sources: Three major types of activities are expected to result in the emission of air pollutants associated with the stationary sources during the operation phase of the proposed EastLake community. These are combustion of natural gas for heating, cooking, and water heating; consumption of electricity for heating, cooling, lighting, and other uses; and combustion of gasoline in private vehicles. In addition, a number of small miscellaneous sources (such as power lawnmowers or residential fireplaces) would emit a small amount of air pollutants. These would, however, be negligible.

The pollutants of concern associated with each activity would vary. Nitrogen oxides (NO_x), and to a lesser extent carbon monoxide (CO), would be the primary pollutants associated with natural gas combustion. Emissions associated with the consumption of electricity would vary greatly, since electricity is typically generated throughout an electrical grid network and at any given time a mix of nuclear, gas-fired, and oil-fired plants may be producing power. Assuming oil-fired power generation (a conservative assumption since the other two types of plants generate a smaller quantity of emissions), the major pollutants emitted would be sulfur oxides (SO_x) and NO_x , with total hydrocarbons

(THC), CO, and total suspended particulates (TSP) generated in lesser quantities. Emissions associated with vehicular use would be largely comprised of CO, with NO_x and THC also generated in significant amounts. Emissions of SO_x and TSP would also occur, but in minimal amounts. The annual emissions associated with natural gas and electricity usage by the EastLake community in 1999 were estimated and are presented in Table 3-11. Sulfur oxides and nitrogen oxides would be pollutants emitted in the largest quantities.

Mobile Emission Sources: The quantities of emissions generated by vehicles are dependent on two factors: the number of vehicle-trips, and the total vehicle-miles traveled (VMT). Emissions associated with VMT are the result of fuel burned in vehicle engines while emissions associated with the number of vehicle trips are due to vehicle start-ups and engine inefficiencies which occur during the initial phase of a trip. The annual emissions associated with project traffic are presented in Table 3-11. Carbon monoxide would be the pollutant emitted in the largest quantity followed by nitrogen oxides and hydrocarbons with total suspended particulates and sulfur oxides occurring in lesser quantities.

Short-Term Impacts: Short-term impacts, if any, would likely result from the large number of vehicles associated with the project once operational. Vehicular traffic would be the largest source of all emissions, except for sulfur oxides (electrical generation would account for the greatest amount of SO_x). Vehicles are expected to produce large amounts of carbon monoxide. Vehicles would also generate a major portion of the nitrogen oxides emitted. Based on the traffic analysis, it was projected that the largest volume of hourly traffic, and thus emissions, would occur on Otay Lakes Road.

Long-Term Impacts: Project-related, long-term impacts are difficult to assess since emissions would be from a variety of sources (mobile and stationary) and would occur over a wide geographical area. For example, emissions from mobile sources would occur throughout the EastLake community, as well as the San Diego Air Basin. Furthermore, the majority of stationary source emissions would result from the generation of electricity which would be provided by utilities in the area. Emissions associated with electrical usage, therefore, would not occur at the EastLake community but would be dispersed throughout a fairly large electrical grid system. On this basis, comparison of project-related emissions with regional emissions in San Diego County is appropriate in assessing impacts.

Table 3-12 presents emissions projected to occur in the San Diego Air Basin in 1990. By comparing regional emissions with those resulting from all project-related sources in the peak emission year (1999), it is evident that emissions from the EastLake community would be relatively small. Hydrocarbons and total suspended particulates resulting from the proposed project would be less than 1.0 percent of those which are projected to occur throughout the air basin. Project-related nitrogen oxides and carbon monoxide emissions would be approximately 1.4 percent of those estimated to occur in the San Diego Air Basin in the future. Adding the estimated concentration increments due to the proposed project to the existing ambient air quality in the San Diego area it is not expected that any violations of the state 1-hour carbon monoxide standard of 40 ppm or the federal primary 1-hour standard of 35 ppm would occur.

Table 3-12

PROJECTED 1990 EMISSIONS FOR SAN DIEGO COUNTY

Source	Emissions--tons/year ² (% of total emissions)		
	RHC NO _x	CO	TSP
Process Losses	43,800(54)	neg.	52,560(36)
Fuel Combustion ⁴	365(1)	2,555(1)	3,285(2)
Air Water, and Rail Transportation	6,205(8)	13,505(4)	2,190(2)
Motor Vehicles	40,515(36)	273,385(88)	6,570(4)
Miscellaneous ⁵	1,825(2)	21,900(7)	82,490(56)
TOTAL	92,710(100)	311,345(100)	147,095(100)

1. Source: San Diego Air Pollution Control District (1978). Emission projections were estimated by San Diego Air Pollution Control District (SDAPCD) using three scenarios with differing levels of controls. The scenario selected assumed an intermediate level of control. The assumptions used were that existing rules and regulations as of 1977 will continue for all future years and regulations with future implementation dates would occur as scheduled.

2. Emissions given by SDAPCD have been annualized by multiplying emissions by 365 days.

3. No data available.

4. Includes emissions from energy generation and waste burning.

5. Includes fugitive dust from construction, farming, roads, fires, and utility equipment.

Concentration increments of NO₂ were predicted to be over 550 µg/m³ at 10 meters for a worst-case situation. The highest recorded NO₂ concentration of 26 pphm at Chula Vista has already exceeded the state 1-hour AAQS of 25 pphm. Thus, the predicted NO₂ levels decrease at distances further than 10 meters away from the road and that the meteorological conditions chosen were worst-case. Thus the only major pollutant of concern during operation of the proposed facilities would be NO₂, emitted from high-duty vehicles during peak hour traffic. Residences immediately north of Otay Lakes Road could potentially be subject to elevated NO₂ levels.

Combined Construction/Operation Emissions (1996)

Construction activity in 1996 is less than occurs in 1993. Slightly more office space is projected to be developed in 1996 compared to 1993, commercial buildings will not be constructed in 1996 (compared to the development of 50,000 square feet of space on 14 acres in 1993), and industrial building and associated acreage will be approximately one-half in 1996 than would occur in 1993. Residential developments throughout most of the buildout period are scheduled to remain fairly constant at approximately 750 dwelling units annually. The building of parks and schools is assumed to be much less in 1996 than that in 1993 since, by 1996, the majority of residential, commercial, industrial, and office development would have already occurred, thus reducing the need for more parks and schools.

Table 3-11 summarizes annual emissions associated with construction and operation of the community. Operation-related activities would result in considerably more emissions than would construction. Mobile sources (resident's automobiles) would generate higher levels of all pollutants (except for sulfur oxides) than would stationary sources associated with natural gas combustion and the generation of electricity. The highest level of sulfur oxides would result from oil-fired plants used for producing electricity. The pollutant produced in the largest quantities during construction and operation activities in 1996 would be carbon monoxide, whose level is more than 4-1/2 times that of the second highest pollutant (nitrogen oxides).

SANDAG has estimated that the two major impacts of the Series V projections would be increased highway congestion and a general decline in travel mobility. These impacts would result both from the projected population increase and from diminishing roadway improvements due to rising costs of construction and the requirement for a larger percentage of the highway budget to be spent on maintenance rather than construction of new roads. Should the proposed project be completed in addition to the growth foreseen for the remainder of the Chula Vista Planning Area, the increased transportation requirement would cause an increase in vehicular emissions for the Chula Vista area beyond those foreseen in the RAQS.

Based on the ambient air quality trends in the project area, and the potential departure from planned growth levels in the Chula Vista Planning Area which could result from the proposed development, the major air quality concern is whether the San Diego region can meet the 1987 date for compliance with the NAAQS if the project is allowed. With the addition of emissions from project-related vehicles and energy consumption, the strategies developed in the

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RAQS for submittal to the California SIP may not be adequate to reduce region-wide emissions to the levels required to attain the NAAQS. Therefore, it would be necessary to mitigate project emissions to the fullest possible extent.

3.21.3 Mitigation

Emissions of particulate matter (fugitive dust) during construction may be greatly alleviated by twice per day sprinkling. Motor vehicle use would be the major cause of air quality impacts resulting from the operation of the proposed project. Although the following types of measures to reduce vehicular travel may be beyond the power of the applicant to enforce, incentives and encouragement could result in a significant reduction in emissions from employee vehicles. Potential measures would include:

1. car and/or van pooling
2. community-operated commuter buses, and
3. phasing of work shifts to minimize peak hour emissions.

The MTDB transit corridor would connect to Telegraph Canyon Road, and Chula Vista Transit would be likely to supply service from the EastLake development to I-805 if demand is sufficient. Public transit can limit the use of personal vehicles, which would otherwise generate a significant quantity of emissions.

Because of the preliminary nature of this project, it is difficult to assess the proposed project's consistency/inconsistency with tactic T-2 (ridesharing). Incentives for ridesharing may be offered, but it is not possible to require ridesharing. Therefore, all that can be stated is that the potential for implementation of carpools, vanpools, or buspools would exist for the proposed community. Concentrating industrial and commercial sectors in one general area provides a central destination around which to arrange carpools, vanpools, or buspools. Also, in the circulation network for the project, points where major arteries and collector roads intersect could be utilized as park and ride sites for commuters traveling out of the community to work.

The proposed biking, hiking, and equestrian trails link areas within the proposed development and implement tactic T-7. The bicycle system should link up with existing regional bike routes to provide an alternative to the automobile for intercommunity travel.

It is not expected that stationary source emissions would require mitigation since the predicted concentration increment would be small. However, a number of measures do exist to reduce natural gas and electrical consumption, thereby reducing stationary emissions. These measures include installation of water heater and building insulation, utilization of solar technologies for heating and hot water requirements, designing of residences and buildings to maximize the use of sun and shade for heating and cooling (see Section 3.4, Energy Supply and Conservation). Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, CAQ-1 through CAQ-4.

3.21.4 Analysis of Significance

The increase in population resulting from development over that forecast by Series V represents a significant air quality impact. The emissions would have an incremental, cumulative impact in a region which currently exceeds standards. Mitigation measures are available to reduce impacts, although not to insignificance.

3.22 SOCIOECONOMIC FACTORS

3.22.1 Population

3.22.1.1 Existing Conditions

The Chula Vista Planning Area is located in the southern portion of the San Diego metropolitan region. This area includes: the Chula Vista City boundaries and the unincorporated territory within the El Rancho del Rey, Bonita-Sunnyside and Castle Park (Montgomery) communities. This region has experienced a population increase of 2.7 percent from 108,301 in 1978 to 111,290 in 1980, while the population of San Diego County increased 6.2 percent during the same time from 1,713,000 to 1,819,292 (SANDAG, 1980b, c). Estimated population for 1985 in San Diego County is 2,082,800 and for the Chula Vista Planning Area is 135,400. This will be an increase of 14.5 percent and 21.6 percent respectively.

By 1995 County population is expected to grow 35.9 percent from 1980 figures while Chula Vista population is expected to increase by 64 percent. By the year 2000, Chula Vista's Planning Area population is anticipated to increase by 69.5 percent to 188,700 while San Diego County's population is estimated to increase by 45.5 percent to 2,647,000 (SANDAG, 1980b).

At present the Chula Vista's Planning Area contains 6.1 percent of the total San Diego County population; by the year 2000 that percentage will probably increase to 10.4 percent.

3.22.1.2 Impacts

The proposed General Development Plan will allow a maximum of 11,800 dwelling units. Based on population generation rates of 2.58 persons per unit, approximately 30,445 people will be housed within the project site. Since buildup will occur in three phases, population onsite would increase to 10,150 in the first 5-year period, to 20,400 within 10 years, and finally to 30,445 within 18 years.

By 1985, population within the Chula Vista Planning Area (CVPA) and outside the city limits is estimated to be 37,904 and by the year 2000, 81,008 (growth predictions made by Series V are based on existing growth trends not to exceed General Plan designations: SANDAG, 1980b). EastLake would constitute 27 percent of this projected population increase in 1985 and 37 percent by the year 2000.

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Under Series V, residential growth for the EastLake site has been estimated at 500 dwellings (SANDAG, 1981). These units could house 1250 people, or roughly 1.5 percent of the expected population growth in the CVPA by the year 2000. In contrast to Series V forecasts, EastLake would allow an additional 29,195 people, or 37 percent of the total 20 year population growth, to live within the project boundaries.

If overall population growth, projected by Series V, remains the same for the CVPA; then the impact from EastLake would be to redistribute 37 percent of the expected 20-year population growth. Redistribution will take place by reducing or eliminating growth in areas designated for growth by the General Plan, to the specific site. If redistribution within the CVPA does not take place, population growth continues as projected, and amendments to the General Plan are made to allow this project to be developed; then a 27 percent increase in population, over Series V forecasts for the CVPA, will occur by the year 2000. If it is assumed that the rate of growth within the County will remain stable, the distribution of planned growth Countywide would be altered due to project development, but total population within the County would not change.

Redistribution, or an increase over projected population growth, could have significant impacts associated with the increased growth over current projections, including air quality, traffic, public services and facilities (see Section IV, Growth Inducement, for further discussion).

The applicant has prepared a supplementary discussion of the SANDAG Series V projections in relation to the proposed project. This information is included in the Final EIR in the comments from Cadillac Fairview Homes West.

3.22.1.3 Mitigation

To mitigate the impacts to growth management within the Chula Vista Planning Area, the project may: reduce estimated number of dwelling units, reduce density of dwelling units/acre by increasing the acreage of the proposed project, extend phasing plan beyond the 20 year period so as to meet possible growth needs beyond 2000 and, finally, to relocate into an area where Series V forecasts have projected growth of the type proposed by this project.

3.22.2 Housing

3.22.2.1 Existing Conditions

Housing within the Chula Vista Planning Area consisted of 41,686 housing units as of June 21, 1980 (SANDAG, 1980c). Of these, single-family homes represent roughly 55 percent of all dwelling units within the city and 95 percent outside the city limits (SANDAG, 1980b). The vacancy rate for dwelling units within the city is approximately 5.2 percent and outside the city limits is 4.2 percent. San Diego County has a higher vacancy rate of 6.8 percent (SANDAG, 1980c). A 5 percent rate in generally signifies a shortage of housing (Hudson, 1980).

Based on Series V forecasts for the Chula Vista Planning Area, between 1980-2000, demand for occupied housing will increase by approximately 17,145 units or 857 units/year within the city and by 15,379 units or 769 units/year outside the city limits.

3.22.2.2 Impacts

The General Development Plan allows for 11,800 dwelling units to be built on 3073 acres over a 15-18 year period. The developer has proposed that 10 percent of the total 11,800 units would be provided as low and moderate income housing. The proposed average density range of these units is shown on Figure 2-5 and can be summarized as follows: 10 percent in single-family detached units; 53 percent in single-family attached units; and 37 percent in multi-family attached units. Based on density, some of the units classified as single-family attached may actually be detached, resulting in a higher percentage of detached units, and a lower percentage of single-family attached units. Buildup will occur within three phases, each representing 5-6 year increments in development. Phase 1 represents a buildup of 4060 du on 1190 acres; Phase 2 a buildup of 4100 du on 1132 acres; and Phase 3 a buildup of 3640 du on 752 acres.

Based on Series V forecasts for annual demand in housing within the Chula Vista Planning Area and outside the city limits (CVPA), EastLake would comprise approximately 77 percent of the total 1990 projected housing needs. Within the CVPA, the project site represents roughly 25 percent of the total projected growth area for residential development.

Residential growth on the proposed site has been estimated at 500 units or 3 percent of the projected housing growth for the CVPA by 1990 (SANDAG, 1981). Series V forecasts assumed these 500 units would be spaced within a very low density category (0.25 du/acre). In contrast to Series V forecasts, the proposed General Plan Amendment would allow an additional 11,300 du, or a 23-fold increase in residential units, to be built within density categories between 1.5-40 du/acre. The average density over the project site would be 6.9 du/acre.

If overall growth in housing development, projected by Series V, remains the same for the CVPA, then the impact from EastLake will be to redistribute 74 percent of the expected 20-year growth in new housing. Redistribution will take place by reducing or eliminating growth from areas designated for growth by the General Plan, to the specific site. If redistribution does not take place, housing development continues within the CVPA as projected, and amendments to the General Plan are made to allow this project to be developed; then a 72 percent increase in housing over Series V forecasts for the CVPA will occur.

Redistribution, or an increase over projected new housing growth, may represent a substantial adverse impact to growth management within the CVPA (see Section IV on Growth Inducement for further discussion).

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3.22.2.3 Mitigation

Mitigation of adverse impacts to growth management resulting from project development, due to changes in the amount or timing of growth can only be mitigated through alternative project designs. Alternatives are discussed in Section V of this report.

3.22.3 Employment

3.22.3.1 Existing Conditions

Median household income within the Chula Vista Planning Area during 1975 was \$12,189, which was roughly 11 percent higher than the County median of \$10,982 (San Diego County, 1976). Table 3-13 shows the primary industries within the Chula Vista Planning Area and San Diego County. Both the County and Chula Vista Planning Area are heavily dependent on government. Within the Chula Vista Planning area 14 percent of the work force are military personnel, which represents the largest single fraction of employment in this area (SANDAG (CPO), 1976b).

Roughly 20 percent of the work force that lives within the Chula Vista Planning Area also works within the area. The other major employment centers are: National City/Southeast, and San Diego/Mid-City, which employ 8.69 percent of the workers that live within the Chula Vista Planning Area (Chula Vista, 1975).

Unemployment was lower within the Chula Vista Planning Area than it was for the County of San Diego, and 70 percent of the total population was employed, with 56 percent of those employed in non-military fields.

Assuming population within this area will increase in the year 2000 to 188,700, then the following employment projection can be made. Non-military employment would increase from 34,409 in 1978 to 57,139 by the year 2000. This would represent an additional 22,730 non-military workers, or an increase of 66 percent in the labor force within the Chula Vista Planning Area by the year 2000.

It should be noted that these figures are based on SANDAG Series V data and assume that conditions at that time will remain constant over a 25-year period. Calculations and projections should only be used for general comparison.

3.22.3.2 Impacts

The General Development Plan indicates 208.9 acres of light industry, 30.6 acres of office, and 28.8 acres of commercial, for a total of 268.3 acres of land uses which will generate employment. Light industry generates 25 employees per acre, retail uses generate 36 employees per acre, and office generates 55 employees per acre. Using these generation rates, development of EastLake as proposed would generate approximately 7942 jobs. By 1986 completed development will generate 3144 jobs; the remaining 4798 jobs would

Table 3-13

PERCENT OF WORK FORCE EMPLOYED BY INDUSTRY

<u>Industry</u>	<u>Chula Vista Planning Area</u>	<u>San Diego County</u>
Agriculture, Fisheries, Forestry	6.2	1.3
Mining and Construction	2.5	4.5
Manufacturing	10.4	7.6
Wholesale or Retail Trade	6.9	6.8
Transportation, Communications Utilities	2.6	3.9
Finance, Insurance, Real Estate	1.9	3.2
Services	12.7	17.4
Government	26.8	19.4
Retired	20.5	21.5
Unemployed or Not in Labor Force	9.5	14.4
TOTAL	100.0	100.0

Source: SANDAG (CPO), 1976a, b.

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be added by 1990. Using the employment projections under existing conditions; by 1985 civilian jobs within the Chula Vista Planning Area and outside the city limits (CVPA) are estimated to be 39,980 and by 1990, 44,413. East-Lake would constitute roughly 8 percent of the employment opportunity within the CVPA by 1986 and 18 percent by 1990. The proposed General Development Plan allows development that will increase the employment potential of the specific site. This employment opportunity may be considered a beneficial impact from the project.

It should be noted that, while employment opportunities would be created by the proposed development, EastLake would not be a self-contained community. As discussed under Land Use, at least 32 percent of future project residents would need to travel outside the community for employment. Please refer to Section III-A for a further discussion of this issue.

3.22.3.3 Mitigation

No mitigation is necessary.

3.22.4 Fiscal Analysis

3.22.4.1 Existing Conditions

A fiscal analysis was completed for the proposed EastLake development to determine the net fiscal effect of the project on the City of Chula Vista in terms of ongoing operating revenues and expenditures exclusive of capital improvements. It should be noted that this analysis is preliminary in nature, and over the phases of project development (20 years), assumptions regarding revenues and expenditures could vary substantially from this used in the current analysis. The full analysis is included as Appendix D to this report, and is summarized below.

The existing operating cost structure of the City of Chula Vista based on the 1980-81 budget was used as a basis for determining the cost implications of providing City services to the proposed EastLake Planned Community. For the analysis, city costs were calculated as average costs including an allocation of fixed costs at the same rate as is currently observed. It should be noted that theoretical studies have indicated that with increased levels of activity, city budgets frequently increase faster than the levels of activity; i.e., city costs don't always increase by a direct linear as function to revenues.

The total budget of Chula Vista for 1980-81 is \$16,884,824. The total direct costs of providing services including police, fire, water, sewers, solid waste, parks and recreation and library was \$13,620,435. Total overhead costs to the City are \$3,264,789.

3.22.4.2 Impacts

The project will be developed in three phases. Each phase will require additional public services which the City of Chula Vista would provide, thereby increasing operating costs. Each phase will also provide increased revenue to the City through increases in assessed property tax, sales tax, business license

tax, utility users tax, franchise tax, real property transfer tax and capital related revenues. Refer to Tables 3-14A and 3-14B for the annual revenue and cost summary. At completion of the first phase, the project would generate a new surplus revenue to the City of Chula Vista of \$123,085-\$269,342 (in 1980-81 prices). At the end of the second phase the ongoing excess of revenue over City costs attributable to the EastLake project is estimated to total \$311,964-\$605,436 per year (in 1980-81 prices). By the completion of the third phase revenues to the City are expected to exceed the cost of providing City services by \$195,001-\$636,834 (in 1980-81 prices). The variation in revenues is related to Park and Recreation costs and is dependent on whether operation and maintenance costs are provided by the City or private sources.

Based on this analysis, the proposed EastLake Planned Community is estimated to provide net revenues and thus a beneficial fiscal impact to the City of Chula Vista. However, net revenue as stated above may vary in actuality if costs to the City to provide services increases at a faster rate than currently observed or if capital improvements must be financed through the City to provide needed community services.

3.22.4.3 Mitigation

No significant impacts were identified, thus no mitigation is necessary. A detailed facilities plan to indicate phasing and funding of capital improvements should be submitted prior to submission of the first Sectional Area Plan for EastLake to assure adequate provision of capital improvements. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, SF-1.

3.23 ARCHAEOLOGICAL/HISTORICAL RESOURCES

3.23.1 Existing Conditions

Field investigations of the EastLake study area were conducted to relocate each of the archaeological and historical resources found during a survey completed by Archaeological Planning Collaborative (APC) during April, 1980 (APC, 1980), and to resurvey selected high potential areas as indicated by landform. High potential areas for this region are generally associated with knoll tops, stream terraces and at bedrock outcroppings (APC, 1980; WESTEC, 1980).

Limited subsurface testing and documentation of cultural surface materials has recently been accomplished by Larry Seeman Associates, Inc. (Douglas 1981). Specifically, two test units were excavated at site SDi-7197 (Locus B) within the San Diego Gas and Electric (SDG&E) right-of-way to assist SDG&E in meeting their obligations to cultural resource sensitivities with regard to the proposed power transmission project (Douglas 1981;1). One additional test unit was excavated at SDi-7197 (Locus D). Documentation of surface artifacts, accomplished at all loci of this site, did not include collection of the cultural materials.

Field Conditions: Virtually all of the study area lies within an agricultural district of San Diego County and has been under continual cultivation since approximately 1927 (Rush, 1965). Disk-harrowing activities over this period of time have caused substantial surface and subsurface impacts, altering much of

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Table 3-14A

ANNUAL REVENUE AND COST SUMMARY -
EASTLAKE FISCAL IMPACT ANALYSIS

	End of Phase 1	End of Phase 2	End of Phase 3
<u>Revenues</u>			
Property Tax			
Development of Property	\$ 716,186*	\$1,453,477*	\$2,087,708*
Additional Retail in City	2,471	6,089	15,515
Sales Tax	146,455	286,479	443,208
Business License Tax	14,309	34,024	36,255
Utility Users Tax	314,614	674,355	834,125
Franchise Tax	122,983	263,605	326,059
Real Property Transfer Tax	21,456	42,892	62,965
Per Capita - Related Revenue	<u>364,622</u>	<u>731,632</u>	<u>1,101,500</u>
Total Revenue	\$1,703,096*	\$3,492,553*	\$4,907,335*
<u>Costs</u>			
Police Costs	\$ 493,117	\$ 989,462	\$1,488,674
Fire Costs - Operating	249,531	500,697	753,818
Public Works Costs	217,530	444,728	608,117
Parks and Recreation Costs***	48,752*	97,824*	147,278*
Library Costs	119,324	239,428	360,469
Overhead Costs	<u>305,500</u>	<u>614,978</u>	<u>911,145</u>
Total Costs	<u>\$1,433,754*</u>	<u>\$2,887,117*</u>	<u>\$4,269,501*</u>
Net Revenue	\$ 269,342*	\$ 605,436*	\$ 637,834*

Source: Alfred Gobar Associates, Inc.
City of Chula Vista Planning Department
Cadillac Fairview Homes West

*Numbers revised per CFHW response to Draft EIR.

***Park and recreation costs reduced to reflect CFHW proposal to privately operate and maintain all neighborhood parks and recreational amenity areas within EastLake. City costs would be limited to those associated with the potential 30-acre City-wide park.

Table 3-14B

**ANNUAL REVENUE AND COST SUMMARY -
EASTLAKE FISCAL IMPACT ANALYSIS**

	End of Phase 1	End of Phase 2	End of Phase 3
<u>Revenues</u>			
Property Tax			
Development of Property	\$ 716,186*	\$1,453,477*	\$2,087,708*
Additional Retail in City	2,471	6,089	15,515
Sales Tax	146,455	286,479	443,208
Business License Tax	14,309	34,024	36,255
Utility Users Tax	314,614	674,355	834,125
Franchise Tax	122,983	263,605	326,059
Real Property Transfer Tax	21,456	42,892	62,965
Per Capita - Related Revenue	<u>364,622</u>	<u>731,632</u>	<u>1,101,500</u>
Total Revenue	\$1,703,096*	\$3,492,553*	\$4,907,335*
<u>Costs</u>			
Police Costs	\$ 493,117	\$ 989,462	\$1,488,674
Fire Costs - Operating	249,531	500,697	753,818
Public Works Costs	217,530	444,728	608,117
Parks and Recreation Costs***	195,009	391,296	589,111
Library Costs	119,324	239,428	360,469
Overhead Costs	<u>305,500</u>	<u>614,978</u>	<u>911,145</u>
Total Costs	<u>\$1,580,011*</u>	<u>\$3,180,589*</u>	<u>\$4,712,334*</u>
Net Revenue	\$ 123,085*	\$ 311,964*	\$ 195,001*

Source: Alfred Gobar Associates, Inc.
City of Chula Vista Planning Department
Cadillac Fairview Homes West

*Numbers revised per CFHW response to Draft EIR.

***Park and recreation costs calculated assuming City operation and maintenance of all parks and recreational amenity areas within EastLake.

the character and integrity of existing cultural resources. During the field investigation, most fields had been recently disked with little or no plant growth. In these areas, visual inspection conditions were optimal.

Heavy vegetation coverage, in undisturbed natural areas or in long-neglected fields, proved to be a limiting factor for visual inspection in only a few isolated areas. Such heavy vegetation was encountered on the end of ridges immediately west of Upper Otay Reservoir and upon knoll-tops and ridges immediately west of Lower Otay Reservoir in the southern portion of the study area.

Vehicle access to the project area was exceptionally good due to the many public roads, ranch maintenance roads and field perimeter roads.

Survey Results: Results of the survey were positive and in general agreement with the results of the survey conducted by Archaeological Planning Collaborative (APC, 1980). Three archaeological/historical sites noted by APC were relocated and reevaluated. A reassessment of the 14 isolated archaeological finds (IAFs) recorded during the 1980 survey revealed similar artifact occurrence and distribution although exact relocations were not made in all cases.

Site SDi-7197, assessed by APC (1980) and R. Franklin (1979) as a lithic scatter containing flakes, cores, choppers, a scraper and a mano, was verified. Site boundaries as determined by APC (1980) were also in agreement with this study.

Site SDi-7976, recorded by APC as a lithic scatter containing a domed andesite discoidal scraper, a felsite core, a basalt biface and two andesite flakes was relocated, but because of dense floral ground cover, only one felsite core of the original inventory was relocated. The one relocated artifact was found at the western edge of a dense stand of anise and seasonal grasses in a recently disked field. Site boundaries as originally recorded could not be confirmed because of visual limitation, but it is likely that the isolate core is indicative of cultural activities that would have produced additional artifacts.

Site SDi-7977, recorded by APC as an area of historic debris was located and reassessed. The site is considered to be an isolated historic refuse dump consisting of patinated aqua-colored glass fragments and fragments of "purple glass", commonly manufactured between the years 1880 and 1914. The refuse most likely originated from one or several ranch houses that existed in the area between the 1870 and 1880s. According to the April 17, 1883 U.S. Government survey map of the region, two such houses occurred along the northern portion of Section 35 (Township 17 South, Range 1 West). Many other fragmented historic items were also noted, but did not possess specific diagnostic dating attributes due to fragmentation. However, the fragments could generally be placed within the 1880 to 1900 time frame. Some of the other items noted include a thick bottle base with a distinguishing "Owens mark" circle (from 1903 or later), several fragments of white crazed ceramics and fragments of blue transferware and aqua-colored designed china. It is estimated that the china fragments were manufactured near the turn-of-the-century. Similar china types were manufactured by Warwick China Company around 1884 and other manufacturers of the same period in the United States and England.

The APC survey of 1980 recorded 14 isolated archaeological finds (IAFs) throughout the study area, with no apparent localized concentration. The current survey relocated only two of the items described in the APC report (1980) and discovered ten unrecorded IAFs. This discrepancy of surveys is actually minor, considering the high degree of ground disturbance caused by farming equipment, change of floral character between the two surveys and the basic difficulty of relocating a specific artifact which has not been clearly flagged or exact location described. In general, a similar number and distribution of IAFs was noted during both the original survey by APC and the current resurvey by WESTEC Services, Inc.

3.23.2 Impacts

The level of significance associated with the archaeological and historical resources on the project site is not considered to be high enough to warrant preservation of the artifacts onsite.

As currently proposed, the EastLake Planned Residential Community could have an adverse impact or effect upon two cultural resource sites. Landform alteration, construction activities and increased human activity would result in the destruction or impairment of significant cultural resources at site SDi-7177, a historic 1870-1890 era trash dump, at site SDi-7197, a prehistoric extractive camp or food procurement site and at site SDi-7976, a lithic scatter.

Loss or destruction of the various isolated prehistoric artifacts that occur sporadically across the property would not constitute a loss of significant or unique data.

3.23.3 Mitigation

To ensure adequate mitigation of potential adverse impacts to cultural resource sites, a phased data recovery program is recommended for sites SDi-7977, 7197 and 7976.

Phase 1: The preliminary test and data recovery phase should consist of: 1) a thorough surface collection of all artifacts at each site including transit or alidade mapping of unique or diagnostic artifacts, 2) subsurface excavation of at least four 1m x 1m test units at SDi-7976, five 1m x 1m test units at SDi-7197 and two 1.5m x 1.5m test units at SDi-7977.

Phase 2: The necessity for, and requirements of, a Phase 2 data recovery will be dependent upon the results of the Phase 1 work. If the scientific and cultural data base is exhausted or adequately sampled during Phase 1, mitigation of impacts may be achieved and there will be no necessity for a Phase 2 program. However, if the Phase 1 testing reveals substantial and significant subsurface materials, a more exhaustive data recovery program should be instituted as Phase 2.

If Phase 2 is required, a thorough and explicit research design should be prepared and reviewed prior to initiation of Phase 2 field work. The research

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design should clearly state the research goals, method and rationale of sampling, research bias and anticipated contributions to the cultural resource data base and literature.

Phase 1 and Phase 2, if required, should result in the preparation of a professionally acceptable data recovery report, curation of all recovered artifacts at a local repository and dissemination of the final report to local institutions and archaeological/historical societies. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, AH-1 and AH-2.

3.23.4 Analysis of Significance

Cultural resources located at three sites on the EastLake property should be mitigated as described above. Such mitigation would avoid potential significant impacts of project development.

3.24 PALEONTOLOGICAL RESOURCES

3.24.1 Existing Conditions

A search of paleontological records at the San Diego Natural History Museum revealed that, although significant paleontological resources are located within the nearby Telegraph Canyon drainage, no known locales are recorded within the EastLake project site. A review of pertinent literature and communications with Mr. Robert Chandler of the Natural History Museum indicate that the Miocene Rosarito Beach Formation, which underlies the majority of the project site, possesses a low potential for containing significant fossils. The Rosarito Beach Formation consists of the Sweetwater and Otay Members, the former being comprised of fluvial and lacustrine sediments and the latter being of volcanic origin. There is thus little potential for encountering fossils in the Otay Member. The Sweetwater Member, however, may contain fossiliferous strata; this formation is found primarily along the walls of the major drainages crossing the EastLake property.

The Pliocene San Diego Formation is mapped just offsite on the ridgeline between Telegraph Canyon and Poggi Canyon. This formation may be found capping the mesa surfaces within the extreme southwestern aspect of the project site, in the vicinity of the southwest quarter of Section 3, north of Poggi Canyon. This formation possesses the greatest potential for containing scientifically-important and significant fossils.

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.

3.24.2 Impacts

Large scale landform alteration and grading may expose and destroy significant subsurface fossil bearing strata, particularly in the southwest quarter of Section 3, north of Poggi Canyon. There is minimal potential for adverse impacts to significant paleontological resources across the remainder of the project site.

3.24.3 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 initial grading activities in portions of Section 3 and in the Sweetwater Member as it appears in major drainage walls.

The paleontologist should have the authority to temporarily halt grading in and around exposed areas that contain significant resources. If required, the contractor should cease grading operations for a period of time sufficient to allow for thorough examination, and if necessary, removal of fossil resources. All field notes, photographs and fossil resources should be deposited at a recognized museum or repository. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, PR-1.

3.24.4 Analysis of Significance

The potential paleontological resources onsite are considered a significant resource, and mitigation measures discussed above should be implemented to avoid adverse impacts to those potential resources.

3.25 NOISE

3.25.1 Existing Conditions

The project site is situated in an isolated area of predominantly agricultural land use in which relatively low noise levels prevail. The only important noise source is vehicular traffic along Otay Lakes Road, which traverses the center of the site from east to west, and Wueste Road, which defines part of the site's eastern boundary. Current average daily traffic volumes on each of these roadways is less than 2700. The site is not within the flight path of any local airports and there are no important stationary sources of noise in close proximity to the site.

A traffic noise model was employed to determine existing noise levels and predict future levels. The noise model was developed by Wyle Laboratories (1973) specifically for use in San Diego County and is based on a noise model developed by the Highway Research Board (1971, 1973) and published by the Federal Highway Administration. The noise scale used in the analysis is the Community Noise Equivalent Level (CNEL). The CNEL is a 24 hour, time weighted annual average noise level based on the A-weighted decibel. A-weighting is a frequency correction that correlates overall sound pressure levels with the frequency of response of the human ear. Time weighting involves the addition of 5 dB to average noise levels (L_{eq}) occurring between 7:00 p.m. and 10:00 p.m. and addition of 10 dB to average noise levels (L_{eq}) occurring between 10:00 p.m. and 7:00 a.m. These time periods are weighted to reflect human sensitivity to noise as a function of activity.

The City of Chula Vista requires that the CNEL of exterior living areas (yards and patios) for residential land uses does not exceed 65 dB(A). In addition, for multi-family residential projects, the California Noise Insulation Standard (California Administrative Code, Title 25, Chapter 1, Subchapter 1, Article 4)

requires that interior noise levels in multi-family residential living spaces not exceed a CNEL of 45 dB(A). The City of Chula Vista also applies this interior noise standard to single-family residential homes. Since a typical exterior wall in a residential wood-frame building attenuates exterior noise levels by 15 to 20 dB(A), the interior noise level standard of 45 dB(A), CNEL can normally be attained without special insulation or construction design where exterior noise levels are below 65 dB(A), CNEL.

Calculated noise levels based on existing traffic volumes on the project site indicate that presently the 60 dB(A), CNEL contour line adjacent to Otay Lakes and Wueste Roads is approximately 50 feet from the roadway. The 65 dB(A), CNEL contour line does not extend beyond the roadway edge.

3.25.2 Impacts

Future noise levels in the project site and surrounding areas on existing and proposed roadways were determined using ultimate traffic volumes projected for the year 2000. Traffic mixes and time distributions are assumed to be essentially the same as existing conditions and vehicle speeds (mph) are assumed to be 45 on arterial streets, 35 on residential streets and 55 on highways. The distances to the 65 and 60 dB(A) CNEL contours for each roadway segment are given in Table 3-15. This table indicates that the proposed project would result in higher ambient noise levels, generated by the increased vehicular traffic, in those areas adjacent to major arterial roadways. Areas exposed to a CNEL of 65 dB(A) or greater would extend to a maximum of 145 feet from the major roadways. For most roadway segments the 65 dB(A), CNEL contour would extend less than 100 feet from the roadway. Residential streets would not produce significant noise levels. Vehicular noise would be the only significant source of noise generated by the proposed project. Therefore, areas outside of the 65 dB(A), CNEL contour line indicated on Table 3-15 would be compatible with noise exposure standards specified by the City of Chula Vista's Noise Element. Those areas within the 65 dB(A), CNEL distance indicated in Table 3-15 would not be compatible residential land use noise standards, but would be compatible with the commercial land use standard of 75 dB(A) CNEL maximum.

Noise generated by construction operations would be a short-term effect and would not create a significant impact due to the lack of sensitive receptors in the project site vicinity. The only noise sensitive receptors would be a mobile home park adjacent to the project site's western boundary. Future residents of the site could be exposed to increased noise levels due to construction over the 20-year period of project development. However, this would be a short-term impact and construction noise would be limited to daytime, weekday hours.

3.25.3 Mitigation

Residential buildings, and outdoor living areas outside of the 65 dB(A), CNEL contour distances indicated in Table 3-15 would not be exposed to significant noise levels and would not require any special mitigation measures for noise attenuation. Noise levels within the 65 dB(A), CNEL distance indicated in Table 3-15 could be attenuated to acceptable levels by the construction of a line of sight noise barrier such as an earthen berm or masonry wall along the

Table 3-15

**CNEL NOISE CONTOUR DISTANCES FROM MAJOR ROADWAYS
FOR ULTIMATE TRAFFIC CONDITIONS**

Roadway Segment	Ultimate ADT	Distance to CNEL Contour From Centerline Nearest Lane	
		65 dBA	60 dBA
TELEGRAPH CANYON ROAD			
Buena Vista to Otay Lakes	23,800	110	235
*Brandywine to Buena Vista	23,000	107	230
*Paseo Del Rey to Brandywine	27,000	120	260
*I-5 to Paseo Del Rey	48,000	194	415
EASTERLY OTAY LAKES ROAD			
Otay Lakes to Corral Canyon	30,700	145	310
Corral Canyon to Eastlake	28,400	136	295
Eastlake to Proctor Valley	25,100	115	250
Proctor Valley to Route 125	21,350	104	225
SOUTHERLY OTAY LAKES ROAD			
Telegraph Canyon to Orange	12,600	72	155
Orange to Route 125	4,500	36	80
OTAY LAKES ROAD			
*Bonita Road to Paseo Ranchero	26,000	116	255
*Paseo Ranchero to East H	16,000	84	180
East H to Telegraph Canyon	24,800	113	295
CORRAL CANYON ROAD			
*Bonita Road to Blacksmith	8,000	53	115
Blacksmith to East H	18,400	93	200
East H to East Otay Lakes	11,700	68	145
EAST H STREET			
*I-805 to Otay Lakes	28,000	123	265
Otay Lakes to Corral Canyon	21,800	104	225
Corral Canyon to Eastlake	10,400	63	135
East Lake to Route 125	17,400	90	195

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Table 3-15 (Continued)

CNEL NOISE CONTOUR DISTANCES FROM MAJOR ROADWAYS
FOR ULTIMATE TRAFFIC CONDITIONS

Roadway Segment	Ultimate ADT	Distance to CNEL Contour From Centerline Nearest Lane	
		65 dBA	60 dBA
EASTLAKE PARKWAY			
East H to Telegraph Canyon	23,300	108	235
Telegraph Canyon to Orange	22,700	106	230
ROUTE 125			
*SR 54 to Bonita	53,000	205	440
*Bonita to Blacksmith	36,000	158	340
Blacksmith to East H	27,000	132	185
East H to Proctor Valley	16,300	95	250
Proctor Valley to East Otay Lakes	10,700	65	140
East Otay Lakes to Orange	16,700	57	190
*Orange to South Otay Lakes	12,000	70	150
ORANGE AVENUE			
*I-805 to Brandywine	33,000	151	325
*Brandywine to Paseo Ladera	18,000	91	195
Paseo Ladera to Otay Lakes	12,800	73	160
Otay Lakes to Eastlake	12,500	72	155
Eastlake to Route 125	17,000	88	---
PROCTOR VALLEY			
Telegraph Canyon to Route 125	12,300	71	150
North of Route 125	7,500	50	110
BLACKSMITH			
Corral Canyon to Route 125	15,400	82	175

*Offsite roadway segments

roadway. Specific impacts and required mitigation measures should be determined at the time individual portions of the site are developed. Mitigation measures proposed by CFHW are included in Volume 2, letter 30, Summary of Mitigation Measures, N-1.

3.25.4 Analysis of Significance

Location of residential or school uses within the 65 dB(A) CNEL contours as indicated on Table 3-15 would constitute a significant adverse impact unless mitigated by construction techniques, barrier walls, or other methods. If no homes or schools were located within the 65 dB contours, no significant impacts would result.

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SECTION IV

GROWTH INDUCING IMPACT OF THE PROPOSED ACTION

The Chula Vista Subregional Area (SRA) is part of the rapidly growing South Bay area of San Diego County. The SRA grew from a 1970 population of 75,916 to an estimated 85,770 in 1980 (San Diego County, 1981). The Series V regional growth forecasts prepared by the San Diego Association of Governments (SANDAG) project that the Chula Vista SRA's population will reach 130,000 by the year 2000, an increase of 52 percent over 1980 (SANDAG, 1980).

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

Several projects have been proposed in the EastLake vicinity, in the easterly portion of the Chula Vista Planning Area. The El Rancho del Rey Specific Planning Area to the west of the project site has been approved for development of a mix of residential and commercial uses on 2272 acres west of the EastLake site within the City. Between El Rancho del Rey and the EastLake site is the Bonita Long Canyon Specific Planning Area which will contain residential development. The tentative map for the first phase of this project has been approved. The Bonita Long Canyon site is adjacent to a small portion of the northwestern boundary of the EastLake site, and its western side is contiguous with existing development in the City of Chula Vista. A proposal to develop mixed residential and commercial uses north of EastLake in the area of San Miguel and Mother Miguel Mountains was rejected by San Diego County several years ago.

The EastLake community would require facilities improvements and extensions to provide urban levels of service including sewer, water, schools, law enforcement, and fire protection in a currently undeveloped area. At present, the sparse development in the project vicinity uses septic systems to dispose of sewage. Extensions of sewer lines to serve EastLake would be required to cross large areas of agricultural, undeveloped or sparsely developed land where no access to municipal sewer systems currently exists, with the exception of the Telegraph Canyon drainage basin. Lines to serve the northwest corner of EastLake (the Proctor Valley and Long Canyon drainages) would have to extend almost 2 miles to the Sweetwater Valley across largely vacant land. If the Long Canyon line were constructed in cooperation with the Bonita Long Canyon development, it would have a less significant growth-inducing impact since it would thereby connect with existing development. A Proctor Valley sewer line, however, would provide sewer capacity to an area with no existing sewer facilities and would facilitate growth. To connect the southern drainage basins to existing sewer facilities, extensions of 3 miles and over across agricultural and undeveloped land would be necessary. Again, these extensions would provide sewage capacity in areas where none is now available, and would thereby facilitate growth in those areas to the south of EastLake. Construction of a wastewater reclamation plant to handle wastes from the southern portion of the project, is being considered by the developers to avoid the necessity of lengthy sewer lines built across undeveloped land. If the plant were sized to handle only EastLake sewage, it would not be growth inducing to the areas adjacent to the project site. If the plant were sized to handle wastes from other property in the Salt Creek drainage basin, however, one obstacle to growth of the adjacent property would be eliminated.

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Since the majority of EastLake acreage is located in relative isolation from other urban development, provision of sewer services across offsite areas to reach the project site would have significant growth-inducing effects on surrounding undeveloped land. Provision of sewer facilities for EastLake as proposed would allow more rapid growth in adjacent areas at higher densities than is currently possible.

The development plans for the community call for construction of schools and other public facilities which are not presently available in the project vicinity. The presence of schools, urban levels of police and fire protection, shopping areas and some employment opportunities could encourage growth of surrounding land by making these facilities more convenient than travelling several miles to reach such services closer to Chula Vista.

An extensive circulation system is planned as part of the proposed project. The new roads and improvements to existing roadways needed to mitigate significant traffic impacts would provide and improve access to many areas onsite and offsite. The transportation corridor (formerly State Route 125) would be a four-lane divided road extending from Route 54 near the Sweetwater Reservoir south through the project site to Route 117 to connect with the second border crossing. It would be constructed in the present alignment of Proctor Valley Road, which currently is a two-lane unpaved road, and would provide a major access route through land which is now essentially undeveloped. Orange Avenue and East H Street would be extended to EastLake from the City, and would improve east-west travel capabilities through the areas in between EastLake and Chula Vista. This additional access would encourage growth of those areas which would be crossed by the road improvements.

The establishment of an urban community in the midst of an agricultural area would also encourage growth of the adjacent land. In addition, approval of the annexation to Chula Vista could encourage additional requests for annexation by adjacent property owners. This could result in the economic value of the property around EastLake increasing making it more difficult to retain the land in agricultural use. As the City of Chula Vista continues to grow towards the east, the project area will be subjected to increasing development pressure. This can be deduced from the number of projects proposed and in progress to the west of the EastLake site. Approval of the EastLake project would heighten and hasten development pressure in the vicinity. The northwestern portion of the project would be the only area contiguous with approved development. The remainder of the site would not be contiguous with existing urbanized areas but would leave large areas of open space on all sides. Extensions of roads and utilities would cross undeveloped land and provide services where none now exist. This would facilitate subsequent in-filling of these areas.

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

The EastLake site is in an area designated by the City's General Plan as Agriculture and Reserve, which is land currently in agricultural use and in reserve for future development. From this designation it can be seen that the City expects this area to grow in

the future; however, the General Plan also indicates that public policy regarding road development, utility extensions, public services and zoning should be set to support agriculture in the eastern part of the planning area for the life of the plan (through 1990). The proposed growth management plan recommends that the City annually study growth patterns and needs, and establish yearly growth corridors in areas appropriate for development. This 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; for example, although extensions for services would be lengthy, the facilities are planned to be provided during each phase of development concurrently with need; in addition, an open space system including pedestrian and bicycle trails connecting various parts of the community is planned. However, development of the proposed project site would leave expanses of undeveloped land between EastLake and the boundaries of existing urban areas, where future in-filling could occur. Instead of orderly growth from the City's eastern boundary further eastward, the proposed project would create a sizable community in an area at the outskirts of the City. Development within EastLake is planned to be phased over a 20-year period, and would generally progress from west to east. This would help to reduce the secondary impacts associated with growth (traffic, air quality, public services and facilities), although not to insignificance.

Implementation of the proposed EastLake project would have significant growth inducing effects on the undeveloped land adjacent to the site. Provision of urban levels of services in this rural agricultural area would allow development at higher densities than is now possible, and higher property values could encourage nearby land owners to sell their land for development or propose their own plans. Although the project incorporates some elements in accordance with existing and proposed growth management plans, such as phased facilities and open space, for the most part the development would conflict with local and regional goals for directing growth. The growth management plans were designed with the intent of managing area growth in an orderly fashion; development of an urban community in an agricultural area surrounded by open space would instead induce growth in the surrounding areas.

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SECTION V

ALTERNATIVES TO THE PROPOSED ACTION

The proposed General Plan Amendment, rezoning to Planned Community and annexation proposals considered in this document for the EastLake project identified three areas of adverse impacts which cannot be mitigated to insignificance. These include the loss of agriculture resources onsite, the premature growth of the area which would induce growth of the surrounding area, and air quality degradation due to population growth beyond that anticipated in regional forecasts used in air quality planning (RAQS). Alternatives which would reduce or eliminate these adverse effects are addressed below.

5.1 NO PROJECT

This alternative would entail leaving the property within the jurisdiction of San Diego County, and retaining existing land use designations for the site. A primary beneficial effect of this alternative is that the property's agricultural resources would be preserved. The current agricultural use of the land could continue, however the economics of dry farming barley onsite are not good and could create a disincentive for continuing present agricultural uses.

The potential for future low density development would remain under the existing land use designations of the County's Otay Subregional Plan. However, due to the limited availability of services, and County policies regarding growth in this area, actual development potential of the site is considered to be severely limited. This alternative would not preclude future development of the site but would be likely to postpone urbanization in this portion of San Diego County.

The significant growth inducing effects of the proposed project would be avoided with the no project alternative. Much of the growth inducing impact is created by the project's requirement for major offsite (to the west) road improvements. Eliminating the need for these improvements would avoid placing substantial pressure on these other properties to develop prematurely.

The no project alternative would assist in implementing regional planning efforts by directing growth toward areas already designated in various agencies' general plans for development. The principal benefit of this redirected growth would be avoidance of what would otherwise be a significant air quality impact and preservation of agricultural resources. The property could be retained as an urban reserve area, to be developed when the need for additional growth areas has been established.

In addition, the potential for adverse impacts associated with the project would be eliminated. These include the loss of agricultural resources discussed above, the change in land use and character of the area to urban development from the existing rural setting, and resultant impacts on traffic circulation, sewage disposal, water and energy availability, schools, police and fire protection, air quality, water quality, topographic alteration, geologic hazards, flooding and noise. However, these impacts, with the exception of regional air

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quality impacts and loss of agricultural resources, have the potential to be largely mitigated as part of future project development.

Implementation of this alternative would eliminate the positive socioeconomic benefit of provision of housing and increased employment opportunities in this area.

Justification for implementing the No Project alternative is dependent upon the perceived value of the onsite agricultural resources versus the desire for an expanded urban area in the City of Chula Vista. Mitigation of significant environmental effects associated with development should be assured prior to project approval, and the decision maker should be aware that some impacts have serious implications for effects beyond the project site (traffic, air quality, growth, water and energy availability).

5.2 INTENSIVE AGRICULTURAL USE

Under this alternative, the property would be utilized for growing coastal-dependent crops with a higher cash value than the dry-farmed barley presently grown onsite. Implementation of this alternative would require that imported water be used for irrigation, water distribution facilities be constructed onsite, and long-term availability of water be assured. Due to the quantity of water needed for coastal dependent crops (the same as 5 to 6 dwelling units per acre) such a demand for water could have an incremental impact on regional water availability until long-term supply solutions are reached. Additional services such as sewer facilities, police and fire protection could also be required due to the increased population that would be working onsite as part of the farming operations.

Intensive agricultural use would likely involve the use of fertilizers and pesticides which may have an adverse effect on residents adjacent to the northwestern portion of the site. In addition, plowing activities in the crop areas would create dust. This is not anticipated to have significant impacts but could be perceived as an annoyance to existing residents when adjacent parcels were being plowed.

Agricultural operations would necessitate an increase in traffic from existing conditions, with the total number of trips dependent on the type of crops and extent of planted acreage. A large portion of this additional traffic would be trucking operations.

Other effects of this alternative would be similar to the No Project Alternative.

Although this alternative would be effective in reducing the impacts associated with the proposed project, it was not selected by the applicant over the project proposal. The applicant's analysis concluded that retention of the property for agricultural land would involve continued economic loss rather than a profitable return on the land.

5.3 REDUCED RESIDENTIAL DENSITY

An alternative development plan which provided for a similar mixture of land uses as the project proposal (residential, commercial, industrial and open space) but which included a lower overall residential density would reduce some adverse impacts. Urbanization of the site would still eliminate the onsite agricultural resources, and would be an inducement to growth of adjacent parcels. The character of the site would be substantially changed from the existing uses, but would be a less intensive development than that proposed by the project. Development at a lower density with more single-family detached units would more closely resemble the type of residential land use which currently exists in the City of Chula Vista. In addition, open space buffers should be provided for all development areas adjacent to agricultural areas to minimize conflicts between these two types of land uses.

A reduction in total traffic generation would be realized with this alternative, resulting in a lesser contribution to total traffic in the area. The precise location and extent of road improvements needed with a lower density project would be dependent on the actual number of units and their location onsite. Incremental reductions in demand for water and energy consumption and in need for community services would also occur. Urbanization of the site would exceed Series V forecasts and thus create an incremental regional air quality impact. However, this would be less significant than that of the proposed project.

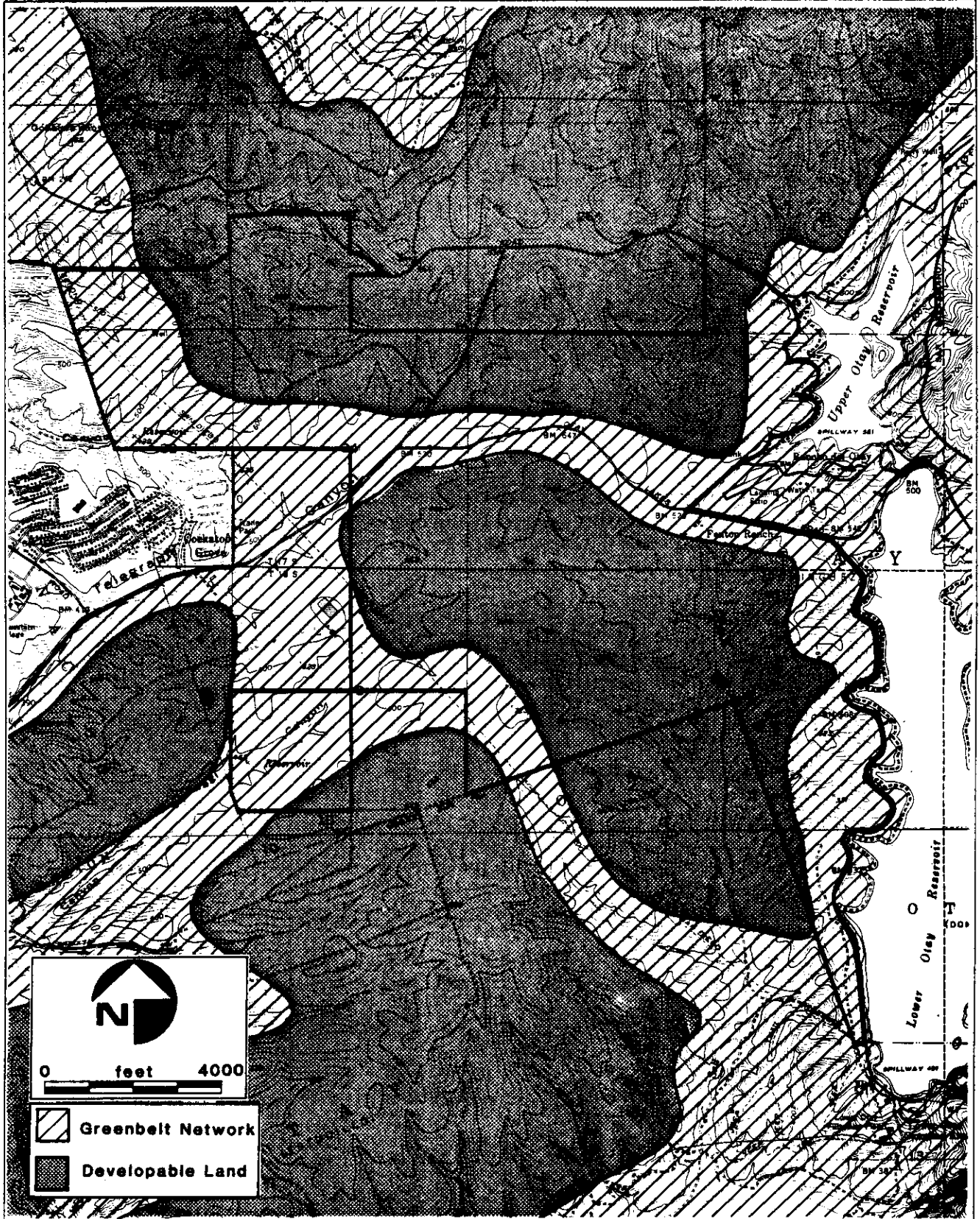
While this alternative would reduce impacts associated with development of the site, the applicant believes that the market exists for a project as proposed, and not a lower density project.

5.4 DEVELOPMENT IN CONFORMANCE WITH GREENBELT PLAN

This alternative would retain the corridors shown for open space on Figure 5-1 with development allowed within the areas indicated. This would implement the preliminary Greenbelt Plan study developed by the Chula Vista Planning Department. It should be noted that this is a preliminary plan and has not been adopted by the City Council. The Greenbelt Plan is designed to preserve the significant canyons and drainage areas of the eastern Planning Area as open space, allowing future development of the remaining acreage. The total developable acreage for the EastLake project site would total approximately 2019 acres. Developable land, the greenbelt network and water areas are indicated on the plan, but no land use designations or densities are defined. Conformance with this preliminary study would retain much of the open nature of the eastern Chula Vista Planning Area while clustering urban development.

The primary effect of this alternative would be a different allocation of open space than is proposed by the applicant. Some of the open space corridors shown on the General Development Plan correspond with the location of greenbelts shown on Figure 5-1 (along Telegraph Canyon/Easterly Otay Lakes Road and adjacent to the Otay Lakes) although the size of the open space is greater on the Greenbelt Plan. Development according to this alternative would also set a precedent for providing greenbelts on adjacent parcels if they develop with urban uses.

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City of Chula Vista Greenbelt Plan
(Advance Planning Division Sketch Plan)

FIGURE
5-1

Impacts associated with this alternative would be similar to those related to urban development of the proposed project. However, the density and timing of development would affect the specific types and intensity of impacts. The total number of units developed under this alternative would likely be lower than the proposed project (due to the reduced number of developable acres). Thus demands for and need of community services would be reduced, and total traffic generation from the site would decrease. Agricultural resources would still be impacted by this plan, although the potential for using the greenbelts for crops would exist.

As in the previous alternative, a project with reduced density would not be considered by the applicant to be responsive to market needs.

5.5 PARTIAL DEVELOPMENT OF PROJECT SITE

This alternative would entail clustering development on a smaller portion of the site, with a reduction in density and the opportunity to retain the onsite agricultural resources. Reductions in commercial and industrial acreage would probably be required in addition to the decrease in residential acreage that would result under this plan.

The preferable location for urban uses would be north of Otay Lakes Road. The decrease in overall project density would reduce total traffic generation, water and energy consumption, demand for services and air quality impacts. Retention of a large portion of the site for potential agricultural use could reduce the adverse impacts on agricultural resources to insignificance. Extension of community facilities and urban services would still be necessary to serve the development.

Implementation of this alternative would reduce the adverse impacts associated with the proposed project. However, the applicant does not consider agricultural use of the property to be economically viable and therefore has not selected this alternative.

5.6 REDESIGN OF THE EASTLAKE DEVELOPMENT PLAN FOR INCREASED EMPLOYMENT OPPORTUNITIES

A major unmitigated impact of the development plan is its conflict with the Regional Air Quality Strategies. While the conflict cannot be completely mitigated, the magnitude of the impact could be reduced by redesigning the land use plan to include a greater commercial and industrial component. Under the proposed design EastLake would provide jobs for approximately 68 percent of the estimated working resident population. An alternative development concept might call for providing an equal number of employment opportunities and dwelling units. If development of the community were phased in such a manner that industrial areas and residential areas were constructed together in equal increments, and if the types of industrial/office activities were specifically selected to match the socioeconomic composition of the expected residents, more people might elect to live and work in EastLake. A substantial reduction in automobile trip length and perhaps numbers of trips could result. Depending upon the number of persons who chose to both live and work in the community, an incremental reduction in traffic impacts would also be expected. All other impacts would be relatively unchanged by this alternative.

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SECTION VI

UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

The proposed GPA and development according to the General Development Plan will result in a significant change in the land use and character of the project site. Significant impacts which cannot be avoided if the project is implemented are described below.

Agricultural Resources: The loss of agricultural resources on the project site is a permanent and irreversible effect of the proposed development. Mitigation of this impact can only be achieved through implementation of an alternative which would retain all or a portion of the site in an undeveloped state to allow for continued agricultural use of the property.

Air Quality: Increased density and population associated with the proposed project would exceed the projections used for RAQS, and could adversely affect the attainment of air quality goals in the San Diego Region. Mitigation measures are available to reduce project generated air pollution but if development is not reduced elsewhere in the region to offset the project increase, the impact cannot be mitigated to insignificance.

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SECTION VII

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

The proposed GPA and future development of the site according to the EastLake General Development Plan would change the land use onsite from agriculture and open space to an urban community development. The project as proposed would provide housing, employment, shopping, educational and recreational opportunities in a region which is growing rapidly. However, the onsite agricultural resources would be eliminated, and replaced with the more intense development associated with residential, commercial and industrial uses. The potential for long-term public safety problems related to geologic hazards exists onsite. However, these will be mitigated to insignificance prior to any future site development.

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

Agricultural Resources: Development of the proposed project would represent an irreversible loss of land suitable for agricultural uses within the San Diego County region. Previous conversion of agricultural land to urban uses has resulted in a finite quantity of land remaining in this favorable climatic zone. These irreplaceable tracts of land continue to be proposed for urban development, further limiting the available acreage. While not all of the remaining suitable agricultural land in the County is currently being cultivated, the commitment to urban uses is irreversible, and incremental reductions in the resource combine to create cumulatively significant impacts. The project as proposed would develop substantial acreage of agriculturally suitable land which is considered a significant, adverse, cumulative impact. This impact can be mitigated only through retention of agricultural resources onsite.

Transportation and Circulation: The effects of project traffic in combination with ultimate development of the entire Traffic Study Area, as discussed in Section 3.3, were evaluated in the traffic analysis completed for this project. The cumulative impacts were considered in that study, and circulation improvements needed to accommodate total traffic generation were identified. The improvements which will be required as conditions of project development are indicated in Table 3-2A.

Sewer Services: Cumulative impacts would be associated with the provision of sewer service through the METRO system. Although the City of Chula Vista has some unused capacity allocation in the METRO system which portions of EastLake will use, the Point Loma Sewage Treatment Plant is currently operating beyond its design capacity. Until such time as that facility is expanded to adequately treat all the sewage it is contracted to handle, any development that contributes to sewage flow entering the METRO system would have a cumulative, significant impact.

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Water Availability: Regional water supply impacts may result from the loss of a portion of California's imported Colorado River water as discussed in Section 3.5. A determination of alternative means of supplying water to southern California has not yet been made. Any development proposal which is made before the region has identified a solution to the potential shortage will contribute to significant cumulative impacts.

Surface Drainage: Development of the project site could aggravate existing downstream drainage and flooding problems. However, prior to approval of sectional area plans, a detailed hydrological analysis will be completed and engineering features will be incorporated into project design to assure that the volume and rate of runoff does not exceed existing, pre-development levels. Thus the project will not contribute to cumulative, offsite drainage impacts.

Air Quality: The San Diego Air Basin currently exceeds standards, and regional air quality strategies (RAQS) have been developed to meet air quality goals based on projected growth in the region. Because the proposed development exceeds the assumptions used in formulating RAQS,, and represents an increase beyond planned regional growth, project-related emissions would have an incremental, cumulative impact on regional air quality.

The applicant has prepared the following discussion regarding justification for approval of the proposed project at this time rather than reserving an option for further alternatives.

EastLake is a Planned Community designed to meet the long-term housing and employment needs of Chula Vista. A Master Plan for EastLake has evolved over a period of 2-1/2 years and will provide the basis for all future plans within the area. The approval of the entire General Plan Amendment and planned community zoning at this time will ensure the orderly development of the area and the provision of adequate infrastructure and community services.

The development of the Planned Community would be phased over an extended period (15-25 years) within the overall framework established by the Master Plan. The City will have the opportunity to review each phase as it is submitted to ensure that the needs of the City are met. It is necessary to proceed with the processing and approval of the planned community at this time to ensure that the first phase of residential and industrial land will be available for development by late 1984.

SECTION VIII

IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WILL RESULT FROM THE PROPOSED PROJECT

Agricultural resources on the project site would be impacted by future project development. The existing crops produced onsite are not considered to be highly valuable, but the soils rated for agricultural production would be irreversibly committed to urban development.

Energy and water resources will be committed in site preparation activities (grading, construction) and as part of future site usage. Grading of the site for development would alter the existing site topography. Cultural and paleontological resources onsite could be adversely affected by future site development. However, it is assumed that these resources will be salvaged, thereby mitigating this potential loss. Ambient noise levels in the project vicinity will increase due to higher traffic volumes as well as other noise sources associated with urban activities.

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SECTION IX

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SECTION X

CERTIFICATION OF ACCURACY AND QUALIFICATIONS


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

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Stephen George and Associates (SGA) - Transportation/Circulation
Alfred Gobar Associates, Inc. - Fiscal Analysis

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.


Ann M. Nussbaum
Project Manager

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**EVALUATION OF ADEQUACY OF
ENVIRONMENTAL IMPACT REPORT FOR
REVISED EASTLAKE PROJECT**

**City of Chula Vista Case Number: EIR-81-03
State Clearinghouse Number: 80121007**

Submitted To:

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

Submitted By:

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

July 1982

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SECTION 1
INTRODUCTION

This report has been prepared to evaluate if the Master EIR prepared for the original EastLake Planned Community proposal is adequate to assess the potential environmental effects of the revised project proposal.

The original project involved a general plan amendment, prezone to Planned Community, General Development Plan and intended annexation request for the entire 3073-acre project site. A Draft EIR was prepared and circulated for public review in October 1981. Subsequent to public review of the DEIR, responses to comments on the Draft were prepared, and a Final EIR was presented to the Chula Vista Planning Commission in February 1982.

After the Planning Commission's action on the original EastLake proposal, the applicant, Cadillac Fairview Homes West, revised the general plan amendment and Planned Community zoning requests, dividing the property into two phases, EastLake I and II. The first phase is proposed to be the development area (approximately 1260 acres) and if approved, a request for annexation to the City of Chula Vista would be made to the Local Agency Formation Commission. This area would be prezoned Planned Community and be developed according to the revised General Development Plan. The second phase area (approximately 1800 acres) would be designated as a future development area, and is anticipated to be incrementally annexed to the City and developed through future planning actions. This approach will allow urbanization of the Phase II area to be developed, thereby permitting the City to develop plans for the entire eastern portion of the planning area prior to committing to a detailed land use plan on the Phase II acreage.

Under Section 15067 of the Administrative Guidelines to CEQA, and Sections 5.8 and 5.9 of the City of Chula Vista Environmental Review Procedures no additional EIR need be prepared for project changes unless those changes would result in new significant environmental impacts not considered in a previous EIR on the project. The purpose of this analysis is to present the basis for determining whether the previous EIR is adequate for the revised project.

The proposed project revisions are described in Section 2 of this report, along with a summary of the original project. The development allowed for EastLake I by the Planned Community District Regulations and General Development Plan, and that envisioned for EastLake II as specified in the EastLake Policy Plan, are very similar to the original project proposal. The most significant difference in the two is the withholding of a level of approval for the EastLake II area, which will permit greater flexibility in planning of the eastern Chula Vista Planning Area. Specific land use and circulation system revisions are described in Section 2.

The EIR prepared for the original project was designed to serve as a Master EIR for the entire property, and as such addressed the environmental effects of full project development. It should be noted that subsequent environmental review will be required for both the EastLake I area (for Sectional Area Plans, Tentative Maps and Precise Plans) and for the EastLake II area (for pre zoning, annexation, sectional planning areas, etc.). These later discretionary actions will provide the opportunity to review more

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specific issues associated with development of the community and to refine the necessary mitigation measures and conditions of approval for each segment of site development.

The comparison of impacts as determined in the EIR for the original project and those associated with the revised project is presented for each issue in Section 3. In summary, the EIR completed for the original project was determined to provide adequate assessment of impacts associated with the revised project. No new significant environmental impacts would occur which were not addressed by the EIR.

SECTION 2

PROJECT DESCRIPTION

The EastLake project site is a 3073 acre unincorporated area within the eastern portion of the Chula Vista Planning Area. A portion of the property is contiguous to the eastern limits of the Chula Vista corporate boundary, and the site itself is bounded on the east by Upper and Lower Otay Lakes. The predominant land use onsite is agriculture (dry-farmed barley). The EIR includes a detailed discussion and maps of the project location and current uses on pages 11-14.

SUMMARY OF ORIGINAL PROJECT CHARACTERISTICS

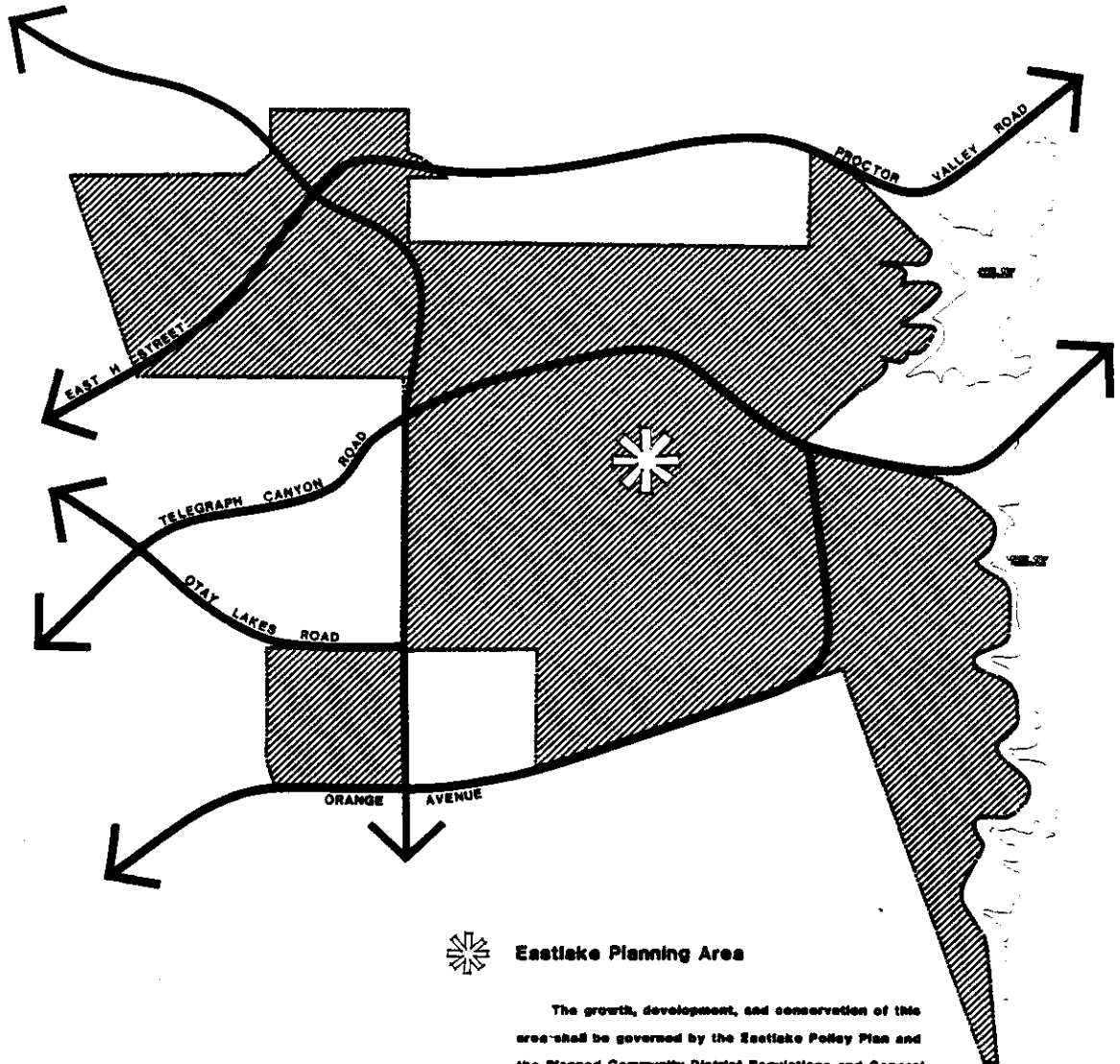
The original project proposal for EastLake was a General Plan Amendment of the Land Use and Circulation Elements, a prezone to Planned Community, and adoption of a General Development Plan and phasing schedule for the entire 3073-acre site. It was intended that if these were approved, a request for annexation of the entire area would be made to the Local Agency Formation Commission (LAFCO). The originally proposed General Plan designations and General Development Plan for EastLake are illustrated and discussed in the EIR on pages 15-22.

REVISED PROJECT

The applicant has submitted a revised project to the City of Chula Vista. The General Plan Amendment which is currently proposed would designate the 3073-acre site as the EastLake Planning Area as shown in Figure 1. This planning area has been divided into two phases, as shown on Figure 2. EastLake I (1267.9 acres) is the current development planning area, which will be developed according to the revised Planned Community District Regulations and General Development Plan for EastLake I. The boundaries of the EastLake I area are almost identical to the Phase 1 area discussed in the EIR. This is the only portion of the property proposed to be annexed to the City of Chula Vista at this time. EastLake II (1805.1 acres) is the future development area the development of which is to be guided by the EastLake Policy Plan, a supplement to the Chula Vista General Plan. Annexation of the EastLake II area would not be requested until future planning studies are conducted and specific plans and zoning are considered.

The circulation system of the revised plan has been changed from the original proposal, and more closely follows the Circulation Element of the Chula Vista General Plan. Figure 1 shows the major roadway alignments proposed for the revised plan. The major change involves the relocation of the north-south transportation corridor (former Route 125) from the eastern portion of the 3073-acre site to the western area of the site. The road would leave the property to the north at the same location indicated by the existing General Plan. However, the alignment onsite would be changed to travel more directly north-south and would leave the southern boundary approximately 1 mile west of the present General Plan alignment. Otay Lakes Road would extend southeast from Telegraph Canyon Road to intersect the north-south transportation corridor. Orange Avenue would be slightly modified from the General Plan alignment and would be located along the southern project boundary, then extend northward to meet easterly Otay Lakes Road. East H Street and Telegraph Canyon Road would follow the same alignments shown by the existing Circulation Element.

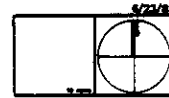
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Eastlake Planning Area

The growth, development, and conservation of this area shall be governed by the Eastlake Policy Plan and the Planned Community District Regulations and General Development Plan for Eastlake I which are hereby incorporated into the Chula Vista General Plan by this reference.

EastLake
a planned community by Cadillac Fairview Homes West

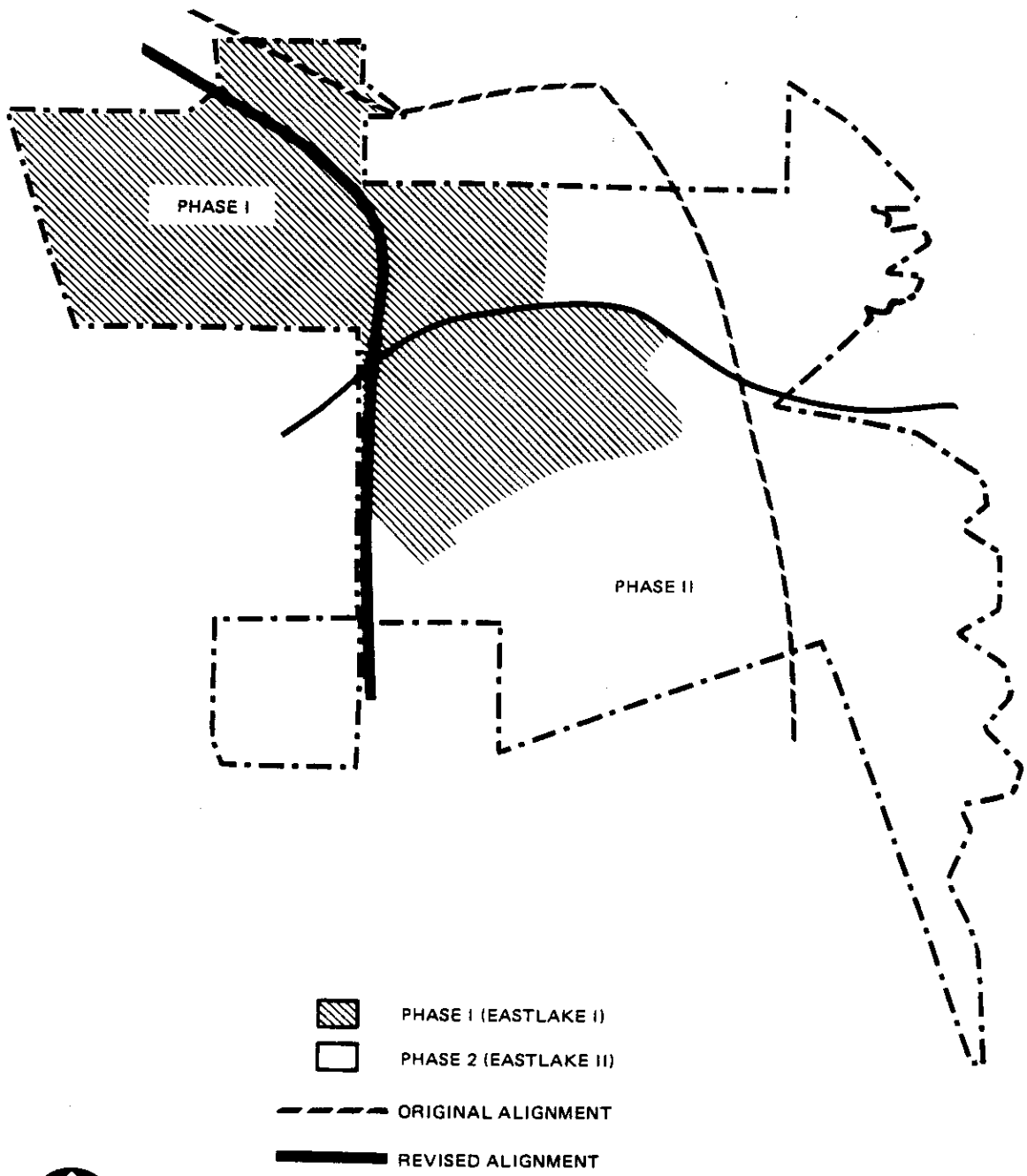


Source:



Proposed General Plan Designation - Revised

FIGURE 1



Project Site Showing Phase Boundaries and Alternative Alignment for
North South Transportation Corridor

**FIGURE
2**

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EastLake I: Under the revised project, EastLake I would be developed according to the General Development Plan shown on Figure 3. This plan provides the same general mix of land uses proposed by the original plan, including a variety of residential types and densities, employment, commercial, educational and open space uses. The changes in land uses for EastLake I compared with the original Phase 1 plan for this portion of the site are described below. The original plan proposal is shown on Figure 2-5 in the EIR (page 18).

As noted earlier, one of the major changes involves the relocation of the north-south transportation corridor, which now extends through the EastLake I area. A 146-foot wide right-of-way will be reserved to permit future expansion of this roadway beyond that required for EastLake I traffic. The alignment of East H Street in the northern portion of the property has also been modified from the original project proposal.

Table 1 presents a comparison of the land uses proposed for the EastLake I revised plan, and the Phase 1 development of the original plan. It should be noted that EastLake I includes approximately 68 acres more than the original Phase 1 area. The additional acreage includes the easternmost Employment Park designation, and additional open space at the southwestern corner of the development area.

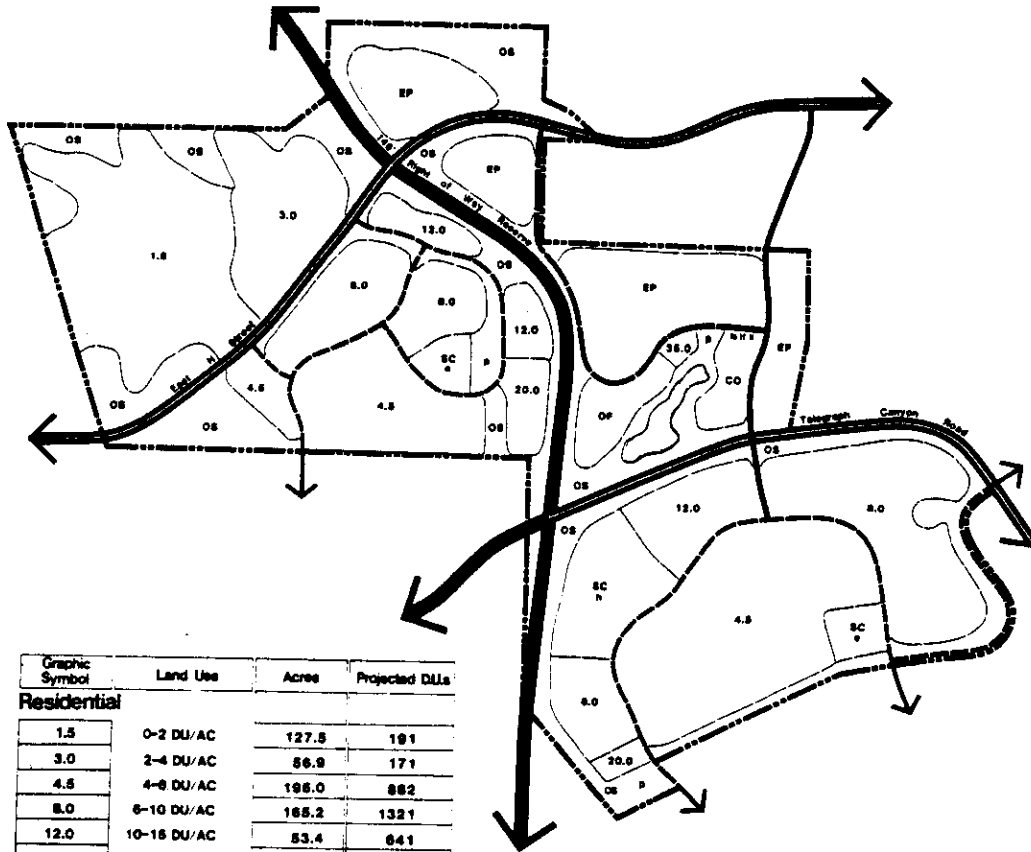
The acreage allocated for Employment Park uses has been expanded to include the area northeast of the north-south transportation corridor on both sides of East H Street. This will provide about 145 acres of land within EastLake I for this land use.

The total acreage designated for residential uses within the EastLake I area has been reduced from the previous plan, with a corresponding reduction in dwelling units. A total of 3683 units are planned to be developed on 620.7 acres. The configuration of densities has been slightly modified, but the net residential density (dwelling units per residential acre) for the revised plan is unchanged from the Phase 1 area of the original plan. The gross project density (dwelling units per total acreage) is only 2.9 units/acre for the revised project, rather than 3.4 units/acre for the original Phase 1 area.

The revised plan has designated a high school site south of Telegraph Canyon Road in addition to the two elementary schools originally shown in this area. Shifting the high school site from its originally designated location in the eastern part of the planning area is intended to accommodate the EastLake I students and avoid overcrowding of existing facilities. This school is intended to function as a joint junior and senior high school for the EastLake I area. When warranted by future development of EastLake II, a separate junior high school would be built and the EastLake I site used as a senior high school only.

Other changes of the revised plan include switching the locations of the commercial and office uses to opposite sides of the lake, adding a park designation at the north end of the lake, and minor revisions in the open space configuration to accommodate changes in the employment park and residential areas.

EastLake II: The EastLake Policy Plan is to be used to guide planning and general development goals of the EastLake II area. It is intended that EastLake II will be implemented through the use of comprehensive planning regulations such as a Specific Plan or Planned Community Zoning. No specific land uses have been designated for this area to permit flexibility in future planning. However, guidelines for the general types



Graphic Symbol	Land Use	Acres	Projected DUs
Residential			
1.5	0-2 DU/AC	127.5	191
3.0	2-4 DU/AC	86.9	171
4.5	4-8 DU/AC	196.0	882
8.0	8-10 DU/AC	168.2	1321
12.0	10-16 DU/AC	53.4	641
20.0	15-25 DU/AC	18.6	376
35.0	25-40 DU/AC	2.9	101
Residential Sub-Totals		620.7	3683

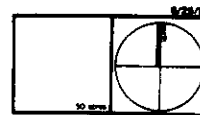
Non-Residential		
EP	Employment Park	145.3
OF	Office	19.2
CO	Commercial	15.0
SC	School	59.9
OS	Open Space/ Recreation	301.4
	Circulation	106.4
Non-Residential Sub-Totals		647.2
Project Total		1267.9
Gross Project Density		2.9

- PRIME ARTERIAL**
6 LANE DIVIDED - 225' R.O.W.
- MAJOR**
4 LANE DIVIDED - 96' R.O.W.
- COLLECTOR**
4 LANE UNDIVIDED - 80' R.O.W.
- COMMERCIAL INDUSTRIAL**
2 LANE UNDIVIDED - 72' R.O.W.
- RESIDENTIAL COLLECTOR**
2 LANE UNDIVIDED - 60' R.O.W.

- Graphic Notes**
(Complete Location of Community Facilities)
- Schools**
- elementary school
 - h high school
- Parks**
- p neighborhood park
- Other**
- to fire station
 - W transit facility
 - l library

EastLake I

a planned community by Cadillac Fairview Homes West



Source:
THE PLANNING CENTER

0 500 1000 1500 2000

Revised General Development Plan EastLake I

FIGURE 3

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Table 1

LAND USE COMPARISON - EASTLAKE I AND PHASE 1
OF ORIGINAL PROJECT

Land Use	Acres		Projected DUs	
	East-Lake I	Phase 1	East-Lake I	Phase 1
Residential¹				
0-2 du/ac	127.5	180	191	250
2-4	56.9	72	171	220
4-6	196.0	216	882	1,230
6-10	165.2	140	1,321	1,090
10-15	53.4	45	641	500
15-25	18.8	22	376	470
25-40	2.9	10	101	300
Subtotal	620.7	685	3,683	4,060
Net Residential Density	5.9	5.9		
Non-Residential				
Employment Park	145.3	66		
Office	19.2	18		
Commercial	15.0	14		
School	59.9	20		
Open Space/Recreation	301.4			
Circulation	106.4	375 ²		
Subtotal	647.2	493		
Project Total	1,267.9	1,190		
Gross Project Density	2.9	3.4		

Source: The Planning Center, General Development Plan for EastLake I (6/5/82), Table 2-1, EastLake Planned Community EIR, page 22.

¹The density ranges listed in this table correspond to the residential categories of the revised plan. The original plan used a slightly different range of units/acre. They were: 0.1-3; 3-5; 5-9; 9-12; 12-20; 20-30; and 30+.

²The calculations for Land Uses by phases in the EIR did not include a separate listing for open space/recreation and circulation. The 375 acres is a combination of both land use categories.

and mix of land uses are presented in the Policy Plan. The gross density for residential units is limited to 3.7 units per gross acre for the entire 3073-acre Planning Area. Residential uses for EastLake II are anticipated to have a similar range of housing types and densities as EastLake I.

Non-residential land uses for EastLake II are expected to include an additional 75 acres of Employment Park and Office uses, a commercial site of approximately 15 acres, a 30-acre community park, as well as schools, open space and park systems, a complex for places of worship, a second private lake and other community and support uses, as appropriate. Circulation system needs will be determined through subsequent analysis during the zoning/annexation stage of EastLake II.

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SECTION 3

ISSUE ANALYSIS AND COMPARISON

The project site area is identical for the original and revised projects, and the environmental setting/existing conditions are the same as described in the EIR. This section addresses each environmental topic analyzed in the EIR, and presents a summary of the impacts identified for the original project followed by a discussion of revised project impacts.

LAND USE

Original Project: The Chula Vista General Plan designates the majority of the site for Agriculture and Reserve, with the northwestern portion of the site designated for Medium Density Residential Uses (4 to 12 du/acre). The boundaries of these designations are shown on Figure 3-2 of the EIR (page 27). The General Plan Amendment and General Development Plan proposed by the original project would change the permitted land uses to an intensive mixed-use urban community and would significantly impact agricultural resources onsite. The proposed development would not have any significant land use compatibility impacts with the existing and planned residential areas to the northwest, or with agricultural land to the north, south and southwest. However, the type and timing of growth on the agricultural land could be affected. The development planned along the eastern boundary of the site include an open space area which could serve as a buffer between EastLake and the Otay Lakes reservoirs. While this buffer zone would reduce potentially significant impacts, it may not completely eliminate them. The internal site design would not be expected to result in any significant land use impacts. However, specific project plans should be evaluated to assure that adjacent uses are compatible, with specific emphasis on buffering surrounding land uses from the proposed high voltage transmission line and the San Diego Aqueduct. The land use mix designated on the original plan would provide opportunities for housing, employment, shopping, education and recreation within the EastLake community and would be more self-contained than a strictly residential development.

Revised Project: The revised GPA for the project site and Development Plan for EastLake I would result in similar changes in land use designations to urban categories. The specific designations of EastLake I would be substantially the same as the original plan, and would provide a mix of uses within this Phase 1 area. The EastLake II area would not have specific land uses designated at this time, but would ultimately be developed at a higher intensity than is shown by the current General Plan. The impacts of the revised project would involve the conversion of agricultural land to urban development as discussed in the EIR. The EastLake Policy Plan includes provisions for mixed uses (Policies A-4 and 5) to encourage self-containment of the community. Future planning for EastLake II should include a review of the land use interface within the project site itself, and with surrounding land uses, particularly the Otay Lakes area. No new significant land use impacts are anticipated to occur with the revised project which were not addressed in the EIR.

Finding: EIR Analysis Adequate.

AGRICULTURAL RESOURCES

Original Project: The proposed land use designation changes would result in ultimate urban development of the EastLake project site which would have a significant impact on agricultural resources onsite. The loss of dry-farmed barley production is not significant, but the loss of resources for the potential production of coastal dependent crops (which would require imported water for irrigation) would be a significant adverse impact of project development. Mitigation of this impact could only be achieved through retention of all or part of the resources onsite.

Revised Project: The proposed project revisions would also allow ultimate conversion of the project site to urban uses, and would have the same significant, unmitigable impact identified in the EIR. Withholding development approvals of the EastLake II area at this time would allow an interim retention of this area for agricultural uses. The Planned Community District Regulations for EastLake I permit agricultural uses within the open space areas (page VIII-1, B-1.a). However, these measures would not mitigate the impacts to insignificance.

Finding: EIR Analysis Adequate.

TRANSPORTATION AND CIRCULATION

Original Project: A traffic study was conducted which analyzed local and regional circulation impacts associated with the original project. This analysis evaluated existing and proposed future roadways within the study area, and identified requirements for street improvements necessary to avoid significant impacts. These were based on the project's proposed revisions to the Circulation Element, and cumulative trip generation from the project and surrounding areas.

Revised Project: The revised project includes roadway designations which are similar to those shown by the existing Circulation Element, with the exception of the north-south transportation corridor alignment through the southern portion of the property. The EastLake Policy Plan (Policy B-1) specifies that EastLake will be developed consistent with the Circulation Element. The Policy Plan (Policy B-2) also requires that a traffic analysis of the Chula Vista sphere east of I-805 be prepared in conjunction with the zoning/annexation stage of EastLake II. This analysis is to define internal and external circulation system needs, required improvements and phasing for EastLake II.

The Planned Community District Regulations for EastLake I include Plan Review Requirements which specify that a similar traffic analysis be completed for the SPA plan (page IV-7, D-14). This study is to address the Chula Vista sphere east of I-805 including the specific phase of EastLake I to be developed. The required onsite and offsite improvements would be defined, with phasing and financing arrangements assessed. If traffic improvements are provided in conjunction with need, no significant impacts would result. Delays in providing necessary improvements could result in significant traffic impacts. Total volumes of traffic generated by project development would not exceed those discussed in the EIR. However, the distribution of that traffic would be modified, and specific impacts should be addressed through the planned additional studies. There are no physical constraints or other problems which would prohibit widening of East H Street and Telegraph Canyon Road as planned.

Finding: EIR Analysis Adequate.

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SEWER SERVICES

Original Project: Development of the property at the proposed intensity of use would greatly exceed that anticipated by the current General Plan. This project development would require extensive construction of both on- and offsite lines, or separate sewage treatment facilities to handle sewage generation. These facility improvements would have to be phased with development to avoid significant impacts. The EIR identified facilities required for Phase 1 development and associated impacts. The area within the Telegraph Canyon basin has some allotted capacity in the existing trunk sewer line. Because some offsite portions of this basin are not proposed to be developed at this time, the City may find it acceptable to pump sewage from the Long Canyon and Proctor Valley basins into the Telegraph Canyon line on a short-term basis, rather than constructing extensive offsite lines to serve the project site. Permanent disposal solutions would be necessary to avoid significant impacts.

Revised Project: Sewage flows from development according to the revised plan would be similar to those projected for the original plan, since land uses for both are almost the same. All of EastLake I is proposed to be sewered through the METRO system via the Telegraph Canyon trunk line, including pumping of additional sewage from the Long Canyon and Proctor Valley basins discussed in the EIR. Sewage flows beyond the 0.54 mgd capacity share in this line for the area within the Telegraph Canyon basin would have to be considered temporary, with provisions for permanent disposal facilities to be included in planning for each phase of development. If adequate sewage facilities are phased with project development, no significant impacts would result. Sewage disposal solutions for the EastLake II area would be evaluated when future specific planning is provided. Additional environmental review at these later stages of project processing should consider the adequacy of area sewage facilities to serve the proposed development.

Finding: EIR Analysis Adequate.

BIOLOGICAL RESOURCES

Original Project: Biological resources on the project site are limited largely to the small areas of remaining native vegetation. The majority of the natural vegetation on the project site has been disturbed by past agricultural cultivation. Several sensitive species are located within the areas of native vegetation, and some individuals and small populations would be lost to development. The overall loss of open land would contribute to a cumulative decrease in the available foraging area for raptors. However, as detailed in the EIR, no significant biological impacts would be anticipated from development as shown on the original plan.

Revised Project: The revised General Plan Amendment request would not result in any new significant biological impacts, as land uses in the EastLake II area are not being specifically located. Actual impacts associated with sensitive resources in the Salt Creek drainage and the southeastern "panhandle" portion of the site would depend on the ultimate configuration of proposed land uses, and would be subject to future environmental review to evaluate land use plans. The EastLake Policy Plan contains several policies regarding the future uses for these areas (Policies D-3, 5 and 6), including recreational uses. Such uses could conflict with the preservation of sensitive biological resources in these areas and should be evaluated further at the time specific plans are available.

The EastLake I General Development Plan indicates the retention of open space in the same general areas as proposed by the original plan. These areas would allow preservation of native vegetation, including sensitive species, on slopes in the north-western portion of the property shown on Figure 3-13 of the EIR (page 81). The realignment of the north-south transportation corridor within the EastLake I area may affect a small portion of Coastal Sage Scrub habitat at the point where it leaves the site on the north. This area includes three sensitive species (Ferocactus viridescens, Viguiera laciniata, and Salvia munzii) and would represent an incremental reduction in this habitat. However, due to the limited extent of this habitat onsite, and the low numbers of individuals involved, this loss is not considered significant. This habitat is more extensively developed offsite and is known to contain a variety of sensitive plant and animal species. The loss of this offsite habitat could be significant dependent upon the final location of the right-of-way. It should be noted that the precise alignment for this roadway has not yet been determined, but the alignment shown by the revised plan in this area is the same as is indicated on the existing Circulation Element of the General Plan. When the right-of-way for the road is being considered, additional evaluation of biological resources both on- and offsite should be conducted.

Finding: EIR Analysis Adequate.

VISUAL RESOURCES

Original Project: Development of the project site according to the land use designations proposed would substantially change the visual character of the site from a rural agricultural area to an urbanized community. While this change in overall visual characteristics is recognized, the level of significance would be dependent upon the design of individual areas within the community. The areas of particular concern in terms of visual impacts are related to landform modification (grading), development within the viewshed of Otay Lakes Park, the interface with the planned high voltage transmission line crossing the site, and land adjacent to potential scenic highways. Potential impacts and mitigation measures should be addressed during subsequent environmental review at the time specific site design is available.

Revised Project: The General Plan Amendment proposed for the site would permit ultimate development of the property with more intense land uses. This would involve the same type of change in visual character for the overall site as was discussed in the EIR. The General Development Plan for EastLake I provides general area designations for land use types and densities, although specific visual impacts cannot be determined at this stage of project design. It should be noted that open space areas are located throughout EastLake I and will serve to buffer the mixed land uses from each other and provide visual relief from urban development.

The EastLake Policy Plan (Policy G) and the Planned Community District Regulations for EastLake I provide for conformance with the Scenic Highways Element, which is to be reviewed at each stage of project development with regard to design, siting and height of structures, landscaping, signs and utilities. In addition, the Planned Community District Regulations include grading standards (page V-6, E-2 and 3) which specify a variety of measures to maintain the existing landform characteristics to the extent possible, and minimize potential visual impacts. Further environmental review during subsequent project development actions will permit additional analysis of any site-specific visual impacts.

Finding: EIR Analysis Adequate.

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WATER AVAILABILITY

Original Project: Water supply to the project site would require the construction of a new water system for delivery. The demand for water to serve project development would be considerably higher than for the lower density development shown on the current General Plan. The Otay Water District and the San Diego County Water Authority, who would provide water for the site, have expressed an ability to serve such development. However, the project would contribute to demands for water which is limited in terms of regional supply. This project itself would not cause available supplies to be exceeded, but would represent part of a potentially significant cumulative impact. Any conservation measures and use of reclaimed water for irrigation could help to minimize water supply impacts.

Revised Project: The demand for water associated with revised project development would not be greater than that considered in the EIR, since the proposed land uses and maximum permitted densities would be very similar. The EastLake II area would not be proposed for development at this time, and demand for water from this portion of the site could be delayed. An assessment of water availability should be made at the time zoning/annexation requests are made. Conservation measures should be incorporated into the project wherever possible, and future use of reclaimed water for irrigation considered as an option to reduce water demands. Use of these measures throughout the community would limit water impacts, but would not mitigate regional, cumulative impacts to a level of insignificance.

Finding: EIR Analysis Adequate.

SCHOOLS

Original Project: The EIR identified a need for additional elementary, junior and senior high schools onsite based on current student generation rates per unit. Schools within the Chula Vista City School District and Sweetwater Union High School District are currently close to or over capacity, and additional schools would be necessary to serve future project residents to avoid significant impacts.

Revised EIR: Ultimate requirements for schools on the project site will vary depending upon the type and timing of development. The applicant has been working with the school districts, and a need for two elementary and one combined junior/senior high school for EastLake I has been tentatively identified. These are indicated on the General Development Plan, and should be constructed in conjunction with need to avoid significant impacts. The junior/senior high school is planned to be converted to a senior high school only, at the time future development within the EastLake II area requires a separate junior high. The Planned Community District Regulations for EastLake I (page V-2, B-5) require that a preliminary Master Plan for School Facilities be submitted prior to or concurrent with approval of the SPA plan. The developer and the school districts are to develop this Plan together, and project approval would be dependent on the assurance that school facilities needed to serve the proposed development would be available when needed. Similar plans should be required for EastLake II as future planning studies proceed.

Finding: EIR Analysis Adequate.

POLICE PROTECTION

Original Project: Development of the project site would create an increased demand for police protection services, and initial emergency response time within EastLake would be below the preferred response time of 4 minutes. However, the addition of police staff and equipment to meet the demands of new development would mitigate this short-term impact to significance.

Revised Project: Urbanization of the project site would result in similar impacts to police protection for both the original and revised projects. The short-term impact resulting from slower response times would remain until additional staff and equipment are provided.

Finding: EIR Analysis Adequate.

FIRE PROTECTION

Original Project: Development of the property as proposed was identified as having a significant impact on fire protection services initially due to the longer response time required to serve the site from existing facilities. A new station was considered necessary during the first phase of development, with a potential need for a second station at ultimate buildout. Project development would also require provision of new apparatus and equipment, and construction of a water supply system adequate to deliver the required flow for fire protection purposes.

Revised Project: Impacts of the revised project would be the same as those identified in the EIR. A fire station location has been identified on the EastLake I General Development Plan. In addition, the Planned Community District Regulations for EastLake I (page IV-6; D-12, 13) require that a public facilities plan be submitted to address methods and sources of financing for public facilities, including a phasing schedule for capital improvement program elements and public facilities, and an implementation plan be submitted to insure that necessary public facilities can be implemented when needed to serve the proposed development.

Finding: EIR Analysis Adequate.

ENERGY SUPPLY AND CONSERVATION

Original Project: The project would require energy facilities to be extended to serve the development, and would result in an incremental increase in demand for energy. However, no unique or unusual demands for energy are expected from project development in this area because of the mixture of land uses which would help to reduce future residents' travel distances. Conservation measures being considered for the development would further reduce energy demand and consumption.

Revised Project: Development according to the revised project would not have any significant energy-related impacts although an incremental increase in demand would still occur. Conservation measures are not specified in the EastLake Policy Plan or Planned Community District Regulations, but should be considered during future environmental review to minimize total energy consumption.

Finding: EIR Analysis Adequate.

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PARKS AND RECREATIONAL FACILITIES

Original Project: The original General Development Plan for EastLake identified adequate open space and park areas to serve future project residents, including one park site within the first phase. No adverse impacts were identified.

Revised Project: The General Development Plan for EastLake I indicates three park sites, as well as open space corridors throughout the area. The Planned Community District Regulations (page IV-5, D-7) and the EastLake Policy Plan (Policy D-4) require that plans be prepared for recreation and open space which define specific provisions for public and private recreation and open space. The Policy Plan also specifies (Policy D-5) that a 30-acre community park be located within EastLake II. No significant park impacts would be associated with development of the revised project.

Finding: EIR Analysis Adequate.

LIBRARY SERVICES

Original Project: The distance of the project site from the single, central library in the Civic Center, and the size of the proposed community, combine to create a potentially significant impact. Measures available to mitigate this impact to insignificance include provision of a temporary store-front library, funding for books and staff, and dedication of a permanent branch library site.

Revised Project: Revised project development would have impacts as discussed in the EIR. A library site has been identified on the General Development Plan for EastLake I, and specific requirements would be addressed in the Public Facilities and Implementation Plans required by the Planned Community District Regulations for EastLake I.

Finding: EIR Analysis Adequate.

OTHER UTILITIES AND SERVICES

No significant impacts would be associated with the incremental increase in use and demand from development of the original or revised projects for solid waste disposal, telephone services, places of worship, hospital or paramedic services.

Finding: EIR Analysis Adequate.

GEOLOGY

Original Project: Potential geologic hazards on the project site include several possible minor landslide areas and seismic activity associated with faulting. Potential impacts associated with slope instability can be mitigated through remedial grading or buttressing and stabilizing the landslides. Potential seismic activity would be no greater at the site than elsewhere in southern California, and construction of structures in conformance with the Uniform Building Code would minimize the effects of earthquake shaking. A detailed geologic investigation would be required prior to final project design to provide grading, foundation and construction recommendations and avoid any adverse geologic impacts.

Revised Project: Under the revised project, the site would be developed with urban uses similar to those proposed under the original plan. Potential geologic impacts would be the same as identified in the EIR. The Planned Community District Regulations for EastLake I (page V-1, B-1) and the EastLake Policy Plan (Policy E) require that detailed geologic investigation reports be prepared by a registered engineering geologist to determine if geologic hazards exist. A geologic hazard avoidance program is to be included for future specific plans to assure that any significant impacts are fully mitigated.

Finding: EIR Analysis Adequate.

SOILS

Original Project: The majority of the project site contains soils which are highly expansive and unsuitable for foundation support. These unstable soils can be easily removed and replaced with compacted fill, and do not represent a significant constraint to development. Potential impacts associated with these unstable soils can be mitigated to insignificance by following the recommendations of an engineering geologist.

Revised Project: Development of the site according to the revised plan would involve the same soils constraints discussed in the EIR. Recommendations of an engineering geologist should be followed to avoid potentially significant impacts associated with unstable soil conditions onsite.

Finding: EIR Analysis Adequate.

GROUNDWATER

There are no substantial quantities of groundwater existing beneath the project site. Development under either the original or revised plans would not have any significant impacts associated with local or regional groundwater conditions in the project vicinity.

Finding: EIR Analysis Adequate.

SURFACE DRAINAGE

Original Project: Urban development of the project site would create large areas of impermeable surfaces, which would result in runoff occurring more quickly, and the peak runoff flow from the site would be larger than for the existing agricultural and open space areas. However, sediment loads of the runoff would be substantially decreased with urbanization. The project site is located in the headwater regions of five tributary drainage basins, and no onsite flooding problems would result with adequate drainage facilities. However, increases in peak discharges of runoff from the project site could aggravate existing flooding problems in areas downstream from the site. Downstream drainage facilities could be significantly impacted by the projected increase in runoff. This impact could be avoided through the use of flood control facilities (such as retention basins) necessary to mitigate any downstream impacts. Further analysis should be conducted at the time specific development plans are available.

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Revised Project: Potential cumulative drainage impacts on areas downstream of the project site would be associated with the creation of impermeable surfaces, such as those which would be created with urbanization of the site. Thus, the revised project would have similar effects as those identified in the EIR. Detailed hydrological analyses should be conducted when design and engineering plans are available, with specific recommendations for flood control facilities. If runoff from the project site does not exceed pre-development levels, no significant impacts would result.

Finding: EIR Analysis Adequate.

MINERAL RESOURCES

There are no known or expected mineral deposits onsite. No adverse impacts would be associated with either the original or revised projects.

Finding: EIR Analysis Adequate.

WATER QUALITY

Original Project: Development of the project site with urban uses would result in a change in the type of contaminants contained in surface runoff, and would decrease sediment loads of runoff as agricultural uses are replaced with urban development. These changes would not have significant water quality impacts, with the possible exception of urban area runoff into the Otay Lakes. The wastewater reclamation program considered for the property would be subject to approval and monitoring by the Regional Water Quality Control Board, and no significant impacts are anticipated. Restrictions on disposal of the treated effluent on land which drains into the Otay Lakes could be implemented by the RWQCB if necessary. In addition, surface runoff from urban areas may need to be redirected from the Otay Lakes to avoid potential impacts.

Revised Project: Urbanization of the project site according to the revised plans would have similar water quality effects as addressed in the EIR. The EastLake Policy Plan (Policy D-2) specifies that the water quality of Upper and Lower Otay reservoirs is to be protected from urban runoff through the use of open space and runoff diversions for areas along the eastern portion of the property draining into the reservoirs. Implementation of this policy would avoid potentially significant water quality impacts. It should be noted that a water reclamation program is not proposed as part of the revised project. If onsite water reclamation is included as part of later planning proposals, subsequent environmental review would be required to address potential impacts of the program.

Finding: EIR Analysis Adequate.

AIR QUALITY

Original Project: The proposed development of the EastLake property would represent a significant increase in growth beyond that projected for the area in the Series V forecasts, with a resultant increase in pollutant emissions from both mobile and stationary sources. Because the Regional Air Quality Strategies for attaining air quality goals are based on these forecasts, development beyond anticipated growth represents a significant, cumulative impact to air quality in a region which currently

exceeds standards. Mitigation measures are available to reduce project-related emissions, but cannot mitigate the impact to insignificance.

Revised Project: Air quality impacts associated with the revised project would be cumulatively significant and unmitigable as addressed in the EIR. Ultimate development of the project site as proposed for EastLake I, and planned for EastLake II, would exceed the Series V estimates and result in cumulative regional air quality impacts. Development of the site as a mixed use community will help to minimize vehicle miles traveled, thereby reducing mobile emissions. Other specific mitigation measures available to reduce project-related emissions discussed in the EIR can be implemented during future site planning for the project site.

Finding: EIR Analysis Adequate.

SOCIOECONOMIC FACTORS

Original Project

Population: The population estimated for development of the project site was estimated to be 10,150 for the Phase 1 area, and 30,445 for ultimate development. These population levels would exceed Series V estimates for the project site. The increase in resident population is not itself a significant impact, but could have secondary impacts related to growth inducement. This is assessed further under the Growth Inducement section.

Housing: The original project proposal involves the development of a variety of housing types and densities throughout the site. In addition, 10 percent of the total 11,800 projected units would be provided as low- and moderate-income housing. Phase 1 development was anticipated to include 4060 dwelling units. Secondary impacts associated with growth levels beyond those anticipated by Series V projections are discussed under Growth Inducement.

Employment: The original development plan included the provision for approximately 268 acres of land uses which would provide employment opportunities for an estimated total of 7942 jobs. Completion of Phase 1 development was expected to generate 3144 jobs. While EastLake development would not be a fully self-contained community, the provision of employment opportunities onsite would help to maximize the number of persons working and living within the EastLake community.

Fiscal Analysis: The analysis of fiscal impact from development of the original project was calculated for the end of each of the three phases proposed. The project was determined to result in net revenues to the City, exclusive of capital improvement costs which were to be paid by the developer. No significant impacts were identified.

Revised Project

Population: Based on the revised Development Plan for EastLake I, the total onsite population for this phase is estimated to be 9503 persons, or 647 less than anticipated under the original plan. The maximum allowable density of 3.7 units/acre for the entire EastLake community, as specified in the EastLake Policy Plan, would be equivalent to that proposed by the original project and considered in the EIR. Thus, the population impacts assessed in the EIR, which were based on estimated persons per dwelling unit, would be substantially the same for the revised project.

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Housing: The revised project proposal would provide for development of 3683 dwelling units as part of EastLake I, which is 377 units less than anticipated under Phase 1 of the original project. Ultimate development allowed for the entire community by the EastLake Policy Plan (3.7 units/acre) would not exceed that considered in the EIR, and no new significant housing-related impacts would be associated with the revised project. Both the Planned Community District Regulations for EastLake I (page VI-8, H) and the EastLake Policy Plan (Policy C) provide for 10 percent of the total permitted dwellings on the property to be developed as affordable housing, thereby retaining this provision of the original project.

Employment: The revised plan for EastLake I includes an expanded employment park with a total of approximately 180 acres of land designated for uses which would generate employment (industrial, office and commercial). An estimated 5228 jobs would be provided onsite by EastLake I development. This is approximately 2084 more jobs than the Phase 1 development of the original project, and would provide a greater number of jobs per population. The EastLake Policy Plan (Policy A-5.a) provides for expanded employment/office park uses (75 acres) and a second commercial site (15 acres). These additional areas would result in approximately the same estimated total employment generation addressed in the original EIR. Ultimate development under the revised plan would thus provide a similar number of jobs per population for the entire EastLake area as specified in the EIR.

Fiscal Analysis: The Planned Community District Regulations for EastLake I (page IV-6, D-12) requires that a public facilities plan be submitted in conjunction with Sectional Development Plans. This will address the methods and sources of financing for public facilities required to support the phased development of the General Development Plan, and a development phasing plan to identify capital improvement program elements and schedules for implementation of public facilities needed to support development of the sectional development plan. The applicant has prepared a revised analysis of cost/revenue based on the revised project, which indicates that EastLake I will provide a net fiscal benefit to the City of Chula Vista.

Finding: EIR Analysis Adequate.

ARCHAEOLOGICAL/HISTORICAL RESOURCES

Original Project: Cultural resources on the EastLake property include two prehistoric and one historic site locations. Ultimate development of the property could adversely impact these resources. A mitigation program involving testing and data recovery prior to site disturbance would avoid potentially significant impacts of project development. Loss or destruction of the isolated prehistoric artifacts scattered across the property would not be a significant impact.

Revised Project: Ultimate development of the property according to the revised plans would have the same potential for impacting cultural resources on the project site, as identified in the EIR. The Planned Community District Regulations for EastLake I provide for an archaeological study area (page V-1, B-2). This would require that a report be submitted by a qualified archaeologist with Sectional Development Plans to indicate the significance of each archaeological area and appropriate measures for mitigation. Such measures could be made conditions of project approval, and would mitigate potential impacts to insignificance.

Finding: EIR Analysis Adequate.

PALEONTOLOGICAL RESOURCES

Original Project: There is a potential for paleontological resources to be present in the extreme southwestern portion of the project site within the Pliocene San Diego Formation and low potential within the Sweetwater Member of the Rosarito Beach Formation in major drainages across the site. Large-scale grading operations could adversely impact any resources which may be present in these areas. Measures are available to mitigate potential impacts, including presence of a qualified paleontologist during grading activities with the authority to temporarily halt or divert grading for areas found to contain significant paleontological resources.

Revised Project: Grading of the areas identified in the EIR could adversely impact paleontological resources. Such impacts would be the same as discussed in the EIR, as would the available mitigation measures. The Planned Community District Regulations for EastLake I include a provision that requires a qualified paleontologist to be present during grading operations on Sweetwater Member soils in this development area (page III-4, B-20). This measure will mitigate impacts from Phase 1 development to insignificance. A similar requirement will be made during subsequent planning actions on the EastLake II portion of the property.

Finding: EIR Analysis Adequate.

NOISE

Original Project: Ambient noise levels in the project vicinity would increase over the existing low levels as a result of urban development of the property. For most of the site, these levels would not be high enough to cause significant adverse impacts. Future noise levels adjacent to major roadways were determined using ultimate traffic volumes. Residential buildings and outdoor living areas located outside the 65 dB(A) CNEL contour distances from major roadways would not be exposed to significant noise levels. Mitigation measures are available to attenuate noise levels for such uses located within the 65 dB(A) CNEL contours. Specific impacts and required mitigation measures were to be determined at the time specific site plans were developed. Construction-related noise levels would not result in significant impacts.

Revised Project: The alignments of major roadways through the project area have been changed in the revised plan. Future traffic studies will determine the future projected roadway volumes, from which noise level calculations can be made. Significant adverse noise impacts would not result from the revised plan if no residences are located within the 65 dB contours. The Planned Community District Regulations for EastLake I (page IV-7, D-15) and the EastLake Policy Plan for EastLake II (Policy F) would require that an acoustical analysis consistent with City-wide practices be prepared using ultimate traffic volumes to delineate the 65 dB(A) CNEL contours within the EastLake I SPA and EastLake II area. No residences are to be located within this contour unless otherwise specifically exempted. These measures will assure that no significant noise impacts will be associated with the revised project.

Finding: EIR Analysis Adequate.

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GROWTH INDUCEMENT

Original Project: Implementation of the proposed project would have significant growth inducing effects on the adjacent undeveloped land. The project would introduce intense urban developemnt into a currently rural setting, and would involve the extension of roads, sewage facilities and community services. Although the project incorporates some elements in accordance with existing and proposed growth management plans, such as phased facilities and open space, the development would conflict with most local and regional goals for directing growth.

Revised Project: While the revised project proposal would have some growth inducing effects, due to the expansion of an urban area into a currently rural setting, the revised General Plan Amendment request preseves flexibility in terms of the majority of the eastern part of the Chula Vista Planning Area. The revised request will allow the eastern area to be studied as a whole, with flexibility in designating future land use types and densities, as well as the timing of that future development. While the revised project does not preclude growth inducement, annexation and development of the East-Lake II area is not proposed at this time and there is a mechanism for controlling growth in this area.

Finding: EIR Analysis Adequate.

SECTION 4

CERTIFICATION OF ACCURACY

This Environmental Impact Report Review was prepared by WESTEC Services, Inc. of San Diego, California. I hereby affirm that, to the best of our knowledge, the statements and information in this analysis are true and correct, and that all known information concerning the potentially significant environmental effects of the revised project have been included and fully evaluated.



Ann M. Nussbaum
Project Manager

R. 11/9/8

**EASTLAKE
FINAL ENVIRONMENTAL IMPACT REPORT
VOLUME 2
COMMENTS AND RESPONSES**

**City of Chula Vista Case Number: EIR 81-03
State Clearinghouse Number: 80121007**

Prepared for:

**City of Chula Vista
Environmental Review Committee
276 Fourth Avenue
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Prepared by:

**WESTEC Services Inc.
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**DRAFT
October 1981**

**FINAL
February 1982**

R. 11/9/8

PREFACE

This three volume document comprises the Final EIR for the General Plan Amendment, rezoning and General Development Plan, and annexation for the Planned Community of EastLake. A Notice of Preparation was circulated in January 1981, and an Environmental Constraints Inventory was prepared for the project site. Subsequently, a Draft EIR was completed for the proposed project and circulated for public review. The Draft EIR text was revised in several areas to address concerns raised during the public review period. The revised EIR text comprises Volume 1 of the Final EIR. Volume 2 contains the comments received on the Draft EIR and the responses to those comments. Volume 3 contains the technical appendices to the EIR, including a supplemental traffic analysis completed during the public review period. Additional information regarding the project, including an Environmental Data Base, White papers, and other technical reports prepared by the applicant, are available for review at the City of Chula Vista Planning Department.

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San Diego County Archaeological Society, Inc.

Environmental Impact Report Review Committee
P. O. Box A-81106
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October 18, 1981

To: Mr. Douglas D. Reid
Environmental Review Coordinator
Department of Planning
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Subject: Draft Environmental Impact Report
Eastlake Planned Community
EIR-81-3

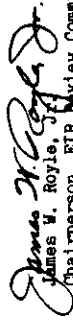
Dear Mr. Reid:

I have reviewed the subject DEIR and its associated archaeological survey report on behalf of this Society's Environmental Impact Report Review Committee.

Based on the contents of the technical report, we concur in the impact analysis and mitigation recommendations contained in the DEIR. The survey report itself is thorough and complete.

We appreciate being included in the City's environmental review process.

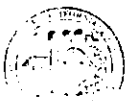
Sincerely,


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

cc: Archaeological Planning Collaborative
SDCAS President
file

1. No response necessary.

8/19/81



THE CITY OF
SAN DIEGO
 CITY OPERATIONS BUILDING - 1221 FIRST AVENUE
 SAN DIEGO, CALIFORNIA 92101

CITY CLERK
 DEPARTMENT 11

October 19, 1981

Douglas Reid
 City of Chula Vista
 P. O. Box 1087
 Chula Vista, CA 92012

Re: EIR 3073-ACRE Janal Ranch Property

2

Returning copy to you as agreed. Thank you for the opportunity to review the document.

Bud Bass

M. A. Bud Bass, Property Agent
 Marketing Division

3

Enclosure

2. No response necessary.

R-11918

Speed Letter. 44-902
[GPO: 1963 O-567-874] U.S. GOVERNMENT PRINTING OFFICE: 1963

To DOUG REID From TED HANSELL
ENVIRONMENTAL REVIEW COORDINATOR
PLANNING
Subject EA 81-3
EASTLAKE

3 INFORM 40000 RELATIVE TO FINE ALLOCATION IS
CORRECT.

3. No response necessary.

Date 10-20-81 Signed [Signature]

REPLY
MESSAGE
DATE
TIME

Date _____ Signed _____

Wilson Jones Company
2101 Wilson Jones Court
Springfield, MA 01104

RECIPIENT—RETAIN WHITE COPY, RETURN PINK COPY

62-11918



Established 1956 ... Dedicated to Community Service
10595 JAMACHA BOULEVARD, SPRING VALLEY, CALIFORNIA 92078
TELEPHONE 462-2322, AREA CODE 714

October 21, 1981
W.O. 951

City of Chula Vista
P.O. Box 1087
Chula Vista, CA 92012

Attention: Douglas D. Reid
Environmental Review Coordinator

Subject: EIR-81-3 - Eastlake Planned Community

Dear Mr. Reid:

We have reviewed the subject report, and have no comment.

Thank you for giving us the opportunity to review it.

Sincerely,

Manuel Arroyo

Manuel Arroyo
District Planning Engineer

MA:cp

4. No response necessary.

2-11918



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2711
LOS ANGELES, CALIFORNIA 90008

IN REPLY REFER TO
SPLED-EP

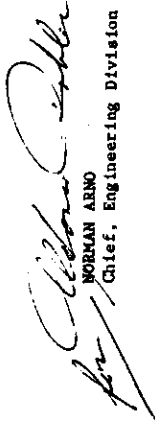
12 November 1981

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

Dear Mr. Reid:

The Los Angeles District Corps of Engineers has reviewed the Notice of the Issuance of a Draft Environmental Impact Report for Public Review and Public Hearing by the Planning Commission for case number EIR-81-3. The draft environmental impact report concerns a proposed project located between Otay Lakes and the Southwestern College Estates/Southwestern College area. The Corps of Engineers has no comments regarding the proposed project.

Sincerely,


NORMAN ARNO
Chief, Engineering Division

5. No response necessary.

5

RECEIVED

NOV 16 1981

Q-11918

5

Sweetwater Union High School District

ADMINISTRATION CENTER
1130 FIFTH AVENUE
CHULA VISTA, CALIFORNIA 92011
714 425-1700

DIVISION OF BUSINESS SERVICES

November 13, 1981

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

Dear Mr. Reid:

Re: Proposed EastLake Planned Community (EIR-81-3)

In response to your letter dated October 13, 1981, the Board of Trustees of the Sweetwater Union High School District, during a meeting held on November 5, 1981, reviewed the draft environmental impact report on the proposed EastLake planned community.

As was previously indicated in a letter dated September 28, 1981, to Mr. Kenneth Lee, based upon the number of students who could be generated as a result of the project, we believe that only one junior and one senior high would not be adequate to serve the development. At the same time as was discussed during the meeting held by the Planning Department on October 13, 1981, the proposed locations of both the junior and senior high schools, neither of which are located within the Phase I development, would have a significant impact upon other existing facilities within the district.

More importantly, as indicated during our discussion on October 13, the Sweetwater District does not have funds available at the present time to purchase sites, build new schools, or expand existing facilities. Because of this fact, our Board of Trustees concurs that adequate land for the necessary school sites should be dedicated by the developer, and developer funding would be necessary to finance the construction of new schools for the EastLake community in the event that capital outlay monies are not made available from State sources.

Because of the State's fiscal crisis, Governor Brown has recently ordered a freeze on funding for capital outlay projects. According to our latest information, this means that some \$200 million will not be allocated for construction projects at both the elementary and secondary level and only those projects which have gone to final bid will be funded during the current fiscal year. What effect this current freeze and the State's fiscal

6. The EIR has been revised to reflect the information provided by the Sweetwater Union High School District regarding the number, location and funding requirements for junior and senior high schools to serve the proposed project.

R-11918

Mr. Douglas D. Reid


-2-

November 13, 1981

problems will have on school construction during the next few years remains uncertain.

As a result, our Board of Trustees has requested that these factors be incorporated in your staff report to the Planning Commission prior to its review and consideration of the final environmental impact report for the proposed Eastlake Planned community.

Sincerely,


W. H. Tucker
Business Manager

JUF:aw

cc: Members of the Board of Trustees
Dr. Wm. B. Padelford
Mr. D. J. Peterson

R-11918

Sweetwater Union High School District

ADMINISTRATION CENTER
1130 FIFTH AVENUE
CHULA VISTA, CALIFORNIA 92011
714 428-1700

WILLIAM B. PADELFORO
DISTRICT SUPERINTENDENT

December 15, 1981

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

Re: Response to the Draft EastLake Master EIR

Dear Mr. Reid:

The staff of the Sweetwater Union High School District has reviewed the Draft Environmental Impact Report for the EastLake General Plan Amendment and Rezoning to Planned Community. We would like the opportunity to offer some comments with respect to the EIR.

The district currently has inadequate facilities to serve the 3,000-acre mixed commercial, industrial, and residential development with a projected build-out of 20 years. As noted in the EIR, we are currently operating over capacity and do not have sufficient funds for the purchase of new school sites and construction of needed facilities.

The proponent of EastLake, Cadillac Fairview Homes West, however, has made a proposal to the staff of the Sweetwater Union High School District with the assistance of their consultant, IMC.

The proposal as we understand it would provide for:

1. The dedication of an appropriate number of school sites during the phased development of the EastLake plan; and
2. Alternate funding mechanisms for the construction of facilities which currently consist of the district's application for State aid with the assistance of IMC and the alternate of direct developer assistance in funding new construction, secured through a contract between the school district and Cadillac Fairview Homes West.

The district staff has not yet finished its review of the Cadillac Fairview Homes West proposal for formal presentation to the board of trustees. Accordingly, we would request the Draft EIR on EastLake note the continuing review of the proposal which has been presented to us and referred to above.

7a

7a.

The applicant's proposal to the District regarding provision of school facilities is noted.

R-11918

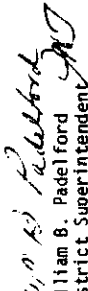
Mr. Douglas D. Reid
Environmental Review Coordinator
City of Chula Vista
December 15, 1991
Page 2

7b. In addition, we would request that a mitigation measure assuring the provision of schools at the appropriate time be added to the Master EIR and become a condition to the project. The condition would provide:

"The General Development Plan for EastLake shall be conditioned to provide that prior to the approval of the first Specific Planning Area Plan (S.P.A.), the Board of Trustees of the Sweetwater Union High School District and Cadillac Fairview Homes West shall enter into a binding agreement which provides for an agreed-upon method of site acquisition and construction financing to provide for the school facilities necessary to serve the first S.P.A. The solution itself shall be reviewed as part of the subsequent environmental review of the S.P.A. as provided for in Table 1-1 of the Draft EIR prior to S.P.A. approval."

We believe that a condition of the nature referred to above will assure the mitigation of any impact prior to the commencement of construction activities which would generate the need for additional school facilities.

Sincerely,


William B. Padelford
District Superintendent

MBP:cj

cc: Mr. Tucker
Mr. Hendee

7b. The mitigation section under "Schools" in the EIR has been revised to include additional information regarding adequate provision of schools as outlined in this comment. It is noted that S.P.A. should refer to Sectional Planning Area.

R-11918



COUNTY OF SAN DIEGO

DEPARTMENT OF PUBLIC WORKS

BUILDING 2 3585 GILMLAND AVENUE
SAN DIEGO CALIFORNIA 92123
TELEPHONE (714) 595 9177

BOARD OF SUPERVISORS

- TOM HAMILTON
First District
- PAUL W. FORLIEM
Second District
- ROGER HEDGECOCK
Third District
- JIM BATES
Fourth District
- PAUL ECKERT
Fifth District

R. J. MASSIARI, Director
 Office of
 County Engineer
 County Road Administration
 County Survey
 County Utility
 County Control
 County Waste
 Solid Waste
 Transportation Operations

November 16, 1981

City of Vista Vista
 276 Fourth Ave.
 Vista, CA 92080
 Attn: Douglas D. Wells

Dear Mr. Wells:

Subject: Draft Environmental Impact Report (EIR) for Eastlake Planned Community (EIR-81-01)

We have received the subject EIR and have the following comments:

The overall development proposal will generate approximately 16,000 daily trips from 11,800 dwelling units and 2.8 acres of commercial and industrial development (reference to page 24). The draft EIR correctly states that this influx of traffic will have a significant traffic impact on the existing and proposed circulation element system.

In order for our first three mitigation recommendations to handle the proposed development, several off-site roads and intersections will require additional improvement:

1. Off-site widening of Proctor Valley Road/I-15 from the northwest property boundary to San Miguel to collector standards.
2. Off-site widening of Proctor Valley Road from the northwesterly property boundary to east of I-15, Proctor Valley intersection where I-15 reenters the proposed development.
3. Off-site improvement to major standard of Otay Lakes Road from the westerly property boundary to the intersection of Telegraph Canyon Road/Otay Lakes Road.

8. As a condition of project approval, a functional circulation system to meet the needs of Eastlake development will be required to be provided. The proposed roadway improvements to be made are listed in Table J-2A of the EIR. The recommendations for full signal improvements as listed will also be incorporated into the recommended mitigation measures. The signal at East H Street and Otay Lakes Road is operational and the one at Otay Lakes Road and Telegraph Canyon Road is budgeted.

R-11918

4. Improvement of all onsite facilities to a level that the traffic study indicates is required. This means prime arterial improvements to Otay Lakes Road within the proposed development boundaries.
5. Full signal improvements and widening if required to the following offsite intersections:
 - San Miguel/I-125, Proctor Valley Rd.
 - Telegraph Canyon Rd./Otay Lakes Rd.
 - 4th St. & Otay Lakes Rd.
 - Sweetwater Rd./I-125
 - Proctor Valley/I-125
6. Full signalization of all intersections onsite shown on Figure 3-10.

If you have any additional questions, please call Bill Hoeben at 565-5074.
 Very truly yours,

R. J. Nassau
 For R. J. NASSAU, Director
 Department of Public Works

RJM:MH:ms

cc: B. Hoeben
 H. Rosenthal, DPLU
 M. Evans, DPLU

Q-11918



San Diego Gas & Electric

COA 270

November 18, 1981

Douglas Reid
Environmental Review
Coordinator
276 Fourth Avenue
Chula Vista, CA 92010

Re: EIR-81-3, Eastlake
Doug.

As stated on page 14 of the draft EIR, San Diego Gas & Electric Company plans to construct a 230KV transmission line through the project area. This line will be an important part of SDG&E's future energy resource plans. As such, continuous reliable service through this line is quite important. To assure this, SDG&E is interested in the following:

- * That the design and development of Eastlake does not hamper access to the transmission line for repair and maintenance.
- * Any proposed encroachments into the transmission right-of-way must be reviewed and approved by SDG&E.
- * Any activities that could cause adverse drainage impacts to the transmission right-of-way should be examined.
- * Adverse impacts to the right-of-way that could be caused by proposed adjacent land uses should also be examined. Where negative impacts can be predicted, alternative land use or land planning designs should be considered or the impacts mitigated. The same should be true where the line could have an adverse impact on proposed adjacent land uses.
- * Any aspects of project design or development that could affect the function, operation and maintenance of the transmission line should be examined and SDG&E should be given the opportunity to comment further.

9. The presence of the SDG&E 230 kV transmission line corridor is recognized and consideration has been given to it in designation of adjacent land uses. Future environmental review for specific site plans will consider and evaluate the points raised in this letter of comment.

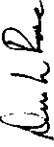
R-11718

-2-

Regarding the energy demands for the subject project: While gas and electric facilities can be made available to the project according to SDG&E's rules filed with and approved by the California Public Utilities Commission, the continued availability of gas and electric energy for this and other future projects is dependent on the supply of fuel and other essential materials and governmental approval of facilities construction.

Thank you for the opportunity to comment on the subject EIR. If you have questions regarding this response, please call me at 232-4252, extension 1504.

Sincerely,



D. L. Rose
Senior Land Planner

DLR:cmd

cc: DPBarrios
MJDanna
JSEspinoza
PMStanfield

R-11718

SWEETWATER WOMAN'S CLUB
P. O. Box 374
BONITA, CALIFORNIA
18 November 1981

NOV 9 1981

Mr. Douglas D. Reid
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 92012

Dear Mr. Reid:

Re: EIR-81-03
Eastlake Planned Community

The Sweetwater Woman's Club with a membership of 105 residents of Chula Vista and the Sweetwater Valley is gravely concerned with certain inadequacies of the Eastlake Draft Environmental Impact Report pertaining to the Sweetwater Valley.

10

3.3.2 Impacts (p. 60) TRANSPORTATION AND CIRCULATION

"Due to anticipated funding difficulties or other reasons, several links of Network 1 may not be improved by year 2000, Route 125 (as a Prime Arterial) between SR 54 and San Miguel Road."

3.3.3 Mitigation (p. 66) states:

"Major Road improvements which will be needed include: SR 125 between the project and SR 54 should be constructed as a four-lane prime arterial; eventual widening to six lanes."

10a

Isn't this totally inadequate mitigation since it will not be accomplished during the life cycle of the project?

P. 67 - "Roads presently designated as collectors will be re-classified as major arterials:

Sweetwater Road (SR 54 - Bonita)
Bonita Bridge
Sweetwater Road (SR 54 - Bonita Bridge)
Corral Canyon Road

An appropriate assignment of responsibility for improvement costs will have to be made."

10b

Isn't it a fact the State Highway Fund doesn't build new roads, but only maintains current roads and both the County of San Diego and City of Chula Vista do not have any monies for construction of new highways?

P. 66 - "Bonita Road between I-805 and Bonita Bridge will need to be widened to six-lane divided major arterial."

10.

The traffic study and recommended mitigation measures are not related solely to the Eastlake project. Rather, they indicate the improvements that would be necessary to serve the entire traffic study area that is bounded by Route 54, the Otay Valley I-805 and Otay Lakes. This is a master EIR on a long term phased project which will have supplemental EIRs on subsequent sectional area plans, tentative maps and precise plans. At a minimum, additional detailed traffic studies will be undertaken at the sectional area plan stage. An additional mitigation measure is being recommended which would require an overall public facilities plan and financing program. This plan is to be prepared prior to consideration of the first sectional area plan. Among the public facilities addressed in this plan would be the proposed street circulation and transportation improvements.

It should be noted that many of the quotations in this letter of comment are taken out of context and the resulting conclusions which are drawn do not reflect the evaluation of impacts presented in the EIR.

10a.

The mitigation as recommended would serve to reduce potential impacts in this particular area to an insignificant level. If the improvements are completed as a condition of project development, no significant impacts are expected. Should the improvements not be completed, significant traffic impacts would result.

10b.

The project developer will be required to complete the necessary on and off-site improvements to accommodate project related traffic with a reasonable level of service. A functional circulation system for the project will have to be provided. Offsite improvements which will be needed and funding responsibilities are listed in Table 3-2A of the EIR text.

R-11918

10c

Where will the right-of-way be taken for this widening? Chula Vista's Municipal Golf Course, the Sweetwater Regional Park, private property and again where will the funds be obtained to pay for the enormous cost to accommodate this one developer?

10c.

The location of the expanded right-of-way for Bonita Road is not known at this time. However, it is likely to encompass a portion of the existing golf course to the north. Increased traffic volumes which warrant widening of Bonita Road are not associated solely with EastLake, but with future development of the entire traffic study area discussed in the EIR.

10d

Aren't Sweetwater Road and Bonita Road in the Sweetwater Planning Area Number 1 Priority Identified Scenic Highways and as such cannot be widened?

10d.

Sweetwater Road and Bonita Road are identified as scenic routes in the Chula Vista General Plan, but no priorities are assigned to such routes. This designation does not preclude widening of the roadways. Again it should be noted that the required widenings are required due to development of the entire traffic study area and not EastLake only.

10e

If SR 125 is built won't it terminate at SR 54 and won't SR 54 terminate at 125? There are no monies to expand 54, Jamacha, 252 has been abandoned, so what's going to occur when the thousands of vehicles suddenly converge on these points and there's no place to go?

DRAINAGE (p. 130) "A serious flood hazard area in terms of the risk of property damage exists at the mouth of Long Canyon."

10e.

The intersection of SR 54 and Route 125 will not be a point of attraction or convergence to which people will want to travel. However, it is acknowledged that high volumes of traffic will travel through this intersection to reach other destinations. It should be noted that State Route 125 is a completed freeway or a proposed freeway north of State Route 54 to the North County area and that the extension of State Route 54 to I-5 is currently budgeted for FY-84. State Route 252 has little or no relationship to the project.

3.17.2 Impacts (p. 132) "With development of the project site for urban land use, large areas of land would be rendered impervious by roads, walkways, buildings, and parking lots. The net result of these changes would be that a higher proportion of rainfall would be translated into runoff, the runoff would occur more quickly, and the peak flow from the site would be larger for a given rainfall intensity than under the existing agricultural and open space land use."

3.17.3 Mitigation "Without specific development plans, no specific measures are presented to mitigate potential drainage problems associated with urban development of the site."

"Drainage improvements in Long Canyon have been approved as part of the comprehensive flood control plan for Zone 3 of the County Flood Control District. However, there is no plan to implement the improvements in the immediate future due to lack of available financing (Harnes, 1981)."

Flooding problems in the Long Canyon Basin and Central Creek areas are well documented both at the City of Chula Vista and the San Diego County Board of Supervisors. Why shouldn't an attempt be made to work in a Regional manner with the city and county in an attempt to solve the problem prior to the approval of any further development in the Long Canyon Basin?

10f

10f.

Potential drainage impacts were identified in the EIR and some solutions were recommended. Drainage improvements can be made a condition of development as specific proposals are processed and the developer will be required to assure that pre-development runoff levels will not be exceeded and no significant impact will result.

AGRICULTURAL RESOURCES - Land is a nonrenewal resource and once the project site is converted to urban uses it's a significant unmitigable adverse impact in terms of the loss of potential production of coastal-dependent crops. EastLake will be an urban island causing a growth-inducing effect on the agricultural areas surrounding it.

10g

10g.

Comment noted. Impacts to agricultural resources were identified in the EIR, and the project was determined to be growth inducing.

10h

We recommend that at this time the Draft EIR 81-03 be found inadequate until extended studies addressing the above issues be completed.

10h.

The EIR identifies all the issues discussed in this letter and identifies mitigation measures which are adequate to deal with these specific impacts with the exception of unmitigable impacts on agricultural resources and air quality. This is a master Environmental Impact Report and additional studies and evaluations will be undertaken prior to the preparation of supplemental documents.

Joanne Clark
mgb

Sincerely,
SWEETWATER WOMAN'S CLUB

President

R. 11918

From tape of Planning Commission hearing on EastLake EIR on Nov. 18, 1981

O'Neill:

On page 160 in the EIR, why don't we use more recent figures than the 1975 special census. In almost every area you talk about there are more recent figures available--under existing conditions?

11a

Well, no need to dwell on that.

On page 129, I'm interested in what percentage of the site will drain into Long Canyon. It indicates here it would be about 19%, but then it's not clear to me whether there would be another 7% added by the Proctor Valley input. That would add up about 26%. Is that an incorrect assumption there?

11b

The reason for my question is, obviously, Long Canyon is a critical area right now and I'm interested in the percentage of this site that will add to an already bad situation there.

Mussbaum:

I believe that 19% refers to the area which would be draining westerly into Long Canyon itself. The 7% from Proctor Valley would eventually reach the same point but it would be on beyond the critical area in Long Canyon.

O'Neill:

A lot of the impacts here are peripheral--as a matter of fact, out at some range. When we say Bonita bridge are we talking about the one on Bonita Road or the one on Willow?

Peterson:

It is on Bonita Road.

O'Neill:

The last question, S.R. 125 is defunct but one of the mitigating features or one of the circulation features that's going to have to be added is something along the old route of S.R. 125. Can you tell me now whether that will go east of the existing golf course or right through it?

11c

Well, we can answer that later, Doug, but that certainly is a concern that would be a little more of an impact than has been indicated here.

Reid:

Yes, there would be the need for further construction of a bridge facility as it crosses the Sweetwater River, I'm not sure of the exact location.

Stevenson:

You're not laying that totally on this development, though. Those bridge requirements are extremely a long ways away from EastLake. If new bridges are required, this would be absorbed by all of the developers out in that area as opposed to just EastLake itself, right?

Reid:

Some type of an arrangement would have to be reached--an assessment district, reimbursement district, something like that. I would like to emphasize however, that when we're speaking of the traffic impacts and the volumes on these various streets we are talking about the study of that entire traffic area, not just the EastLake property.

O'Neill:

But was this not necessitated by the EastLake development, however, which would increase the traffic throughout the area, 16, 18 percent?

Reid:

Correct. Yes there's a figure and we have slides also of the percentages EastLake associated, although not necessarily generated.

11a.

For each issue discussed, the information used was the most recent available, at the time the EIR was prepared, which would allow comparison of data. The projected impacts were based on Series V data and the finding of no significant impacts would not be changed with use of more recent numbers. Information from the 1980 census is not available at this time. It is estimated to become available in Spring 1982.

11b.

The Proctor Valley, Sunnyside Basin discharges to the Sweetwater River upstream from the Long Canyon Basin discharge point. The 7 percent of the site which drains through Proctor Valley would not impact the Long Canyon Basin (which drains 19 percent of the project site).

11c.

The exact location of the bridge to cross the Sweetwater River has not yet been determined, but would be dependent on the final roadway alignment. This improvement would not traverse the middle of the existing golf course but may cross the northeastern end of the course. The ultimate routing for this roadway segment will be subject to further environmental review.

12 11918

Williams:

In the fiscal analysis section on pages 162 and 165 you make reference to the need for capital improvements. It seems to me we are talking about an infrastructure that's going to be a tremendous expenditure, and you really can't assume that away and then go on and offer the comment that there's no significant impact. I think that without quantifying it must be raised to a level of significance in the EIR in order to--I'm not sure how you would do that--but it's going to be very very significant and I think it must be identified as so

Stevenson:

Won't the capital improvements be placed in place by the developer so that there's really no impact on the City. At least, that's what I would hope.

Williams:

If that's going to happen I think it's going to have to be tracked and documented all the way through the process, and I think the way to be sure it's tracked and documented all the way through the process is to have it identified as a needed and significant mitigating factor.

Stevenson:

I thought some of the costs in here, in my mind, tended to be a little high, at least, in the initial five or six year period. Because I'm under the assumption that the developer would put in the capital costs, streets, sidewalks and so on. For example, we have a figure of something 2, 4, 6 hundred thousand for public works, and certainly in the early stages of the development it wouldn't seem that there'd be too great a public works cost, assuming that the developer puts in all of the streets and roads. I know in the area where I live there really wasn't that much public works expenditure for the first eight or ten years after we moved in. The streets were brand new, the sidewalks were great, they came around and clipped the trees once every two years. What's those figures? I'm a little confused. Also on library costs. The library in here, we talked about not having a branch library at EastLake. How could library costs go up \$360,000? It sounds extremely high. Did your firm develop these costs?

Have you got any answers?

Nussbaum:

Our subconsultant developed the costs and if you can give me two minutes I will give you an answer.

My understanding is that those costs are based on--and the revenue--are based on a--an appropriated share based on the number of units the type of development, type of residential, type of commercial, type of industrial, and while those costs may not be indicative of the first year or first five years of development it that type of development's share in the overall budgeted cost. At this juncture there had to be some generalizations made and the city budget was used to allocate those costs, not necessarily for the first five years, but what the average would be over the lifetime of the project.

Stevenson:

You do have them broken down by phases, which equates into . . .

Nussbaum:

Phases, not necessarily by years, but by development completed during that phase.

11d. Capital improvements are proposed to be completed by the project applicant as part of site development. The city will assure that these improvements are implemented as conditions of development. A capital facilities plan and financing program will be prepared prior to approval of the first Sectional Area Plan. The fiscal analysis has been revised to reflect corrections as follows (see Table 14A and B): the capital costs for the fire station and equipment will be borne by the developer, park maintenance costs will be financed through homeowners associations. Personal property tax calculations were also corrected.

12-11718

3.

Reid:

I might just add as far as the costs summarized here, those expenses are new personnel, new equipment, longer distances to provide services in the outlying area, street maintenance, sewer maintenance. We're talking, you know, 30, 35 percent increase in population of the city in a new area and when you compare that to existing budgetary figures it's not terribly out of line.

Stevenson:

I would think this is one area where you really should lock yourself into, because the economic feasibility of this, I think, will be one of the extremely important aspects of this entire development. Certainly if it's going to be a loss, we've got problems, and if it's going to be a gain-- in other words, I think the justification has to be there, and I get the feeling and the report has said that these are very tentative, temporary, off the top of the hat sort of guesses, and I think that's probably correct. But I think as this thing develops we should really lock into this is a good solid, C.P.A. type of way.

11e

11e.

The EIR analyzed the fiscal impacts as thoroughly as possible based on the project and City budgetary information available at the time the report was being prepared. The nature of the analysis completed within the scope of the EIR was a general fiscal overview.

LONG CANYON
HOME OWNERS ASSOCIATION

Please address reply to:
4425 Acacia
Bonita, California
92002
19 November 1981

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

Re: Environmental Review of proposed Eastlake - EIR 81-03

Dear Mr. Reid:

Attached are the comments and concerns of the Long Canyon Homeowners Association regarding the validity and accuracy of the Environmental Impact Report.

We would request that these comments be included in the Final Environmental Impact Report.

Sincerely,

Martha McDonald
MARTHA McDONALD, PRESIDENT
LONG CANYON HOMEOWNERS ASSOCIATION

M. McDonald
mgb

R-11918

My name is Martha McDonald, 4425 Acacia Avenue, Bonita. Tonight I represent both the Long Canyon Homeowners' Association and the Sweetwater Valley Civic Association. Both groups express great concern about the validity and accuracy of the EIR for the proposed Eastlake project in the following areas:

TRAFFIC: The EIR's approach to traffic impacts and mitigation is polyanic. The major impacts of the circulation plan will be upon the Bonita/Sweetwater Valley area. The present traffic circulation system in the project area has limited capacity to accommodate new developments. (EIR) If the proposed mitigations are approved, the character and the essence of Bonita will be destroyed. Yet the EIR states that traffic impacts cannot be reduced to a level of insignificance without this mitigation. The mitigation provided (p. 66) (Appendix C. P. 15) demands that both the County and City Circulation Plans be amended to upgrade specified collector streets to prime arterials. A careful review of this list will prove that this mitigation is not feasible. For example, the entire circulation mitigation depends upon (a) 125 and yet SR 125 has been deleted by Cal Trans and will in all probability never be built. (b) a six-lane Bonita Road from Willow Street to Sweetwater. Where is the land for this widening to be taken? From the Chula Vista Golf Course? The condemnation of private homes in an established community? (c) a 4 - 6 lane Sweetwater Road. Since Sweetwater Road is a designated Scenic Highway, is this mitigation feasible?

What about the destruction of a large number of mature trees? Again where will the land for widening be taken. From the Sweetwater Regional Park? From the condemnation of private homes in an established community? The EIR, Appendix C, points out the heaviest point of congestion will be at the intersection of I-805, Bonita Road and Bonita Mesa Road. There is no mitigation for this. Can a circulation element be used as a Mitigation unless there is a reasonable chance the roads will be built? The EIR should certainly address the impacts of these circulation changes upon the Bonita area. The EIR states that a portion of these road improvements will be borne by public agencies.

In addition, we believe that the EIR does not adequately address the significant cumulative impacts on the circulation system. Section 21083 of CEQA states, "The possible effects of a project are cumulatively considerable". Its definition of cumulative considerable is the incremental effects of an individual project when viewed in connection with the effects of past projects, the effects

12a

12a.

The improvements to roadways in the Bonita/Sweetwater Valley area which were specified as mitigation measures in the EIR are required as the result of total traffic from the entire study area and not only from the proposed Eastlake development. Land use studies are currently underway for the Eastern Territories which will further define the magnitude of any cumulative potential impacts.

12b

12b.

While SR 125 is no longer to be constructed by Caltrans, the project applicant has proposed to build a roadway along the generally preferred alignment of Route 125. The references to 125 in the EIR are to the developer-funded road and not SR 125.

12c

12c.

Please see response 10d.

12d

12d.

The scenic route designation of Sweetwater Road does not preclude widening of the roadway. There is sufficient right-of-way width to accommodate the recommended widenings, although some modifications of standards (such as reduced sidewalk widths and prohibition of on-street parking) due to cumulative impacts could be necessary where adjacent land uses are established. Where significant impacts related to Eastlake are anticipated, roadway modification and improvements will be completed as conditions of project development. Details regarding the location of any street widening or extensions are not available at this time.

12e

12e.

Cumulative traffic and circulation impacts were addressed through the evaluation of the entire traffic study area which assumed full development of land uses as designated in the Chula Vista General Plan and development in accordance with SANDAG Series V population forecasts in addition to Eastlake. The EIR recognizes that traffic is a substantial problem related to the proposed project. An implementation program will be developed to assure that adequate mitigation is provided.

of other current projects and the effects of probable future projects.

Under construction is the large Watt Industries Rice Canyon project. Recently, the 650-acre Gersten - Long Canyon project was approved. There is the increased traffic to the new National City Shopping Center. The cumulative impacts of all these projects are not addressed nor is feasible mitigation offered for the incremental impact of the overloaded road system. What will happen to the community if this project is approved without mitigation?

WATER, Water availability is another community concern. Although the applicant argues that this is beyond his control, (p. 80) it is an issue which must be dealt with. Within 3 years, we may lose 15% of our Colorado River water supply; the Peripheral Canal issue remains unsettled. The EIR states (p. 79) that the increase in demand of this project would contribute to regional water supply problems. The only mitigation measures provided are the construction of the system itself and water conservation (p.80) More extensive studies on water availability and feasible mitigation should be provided before the certification of this document.

12f

12f. As noted in the EIR, the supply of water is a regional issue, and any new development in the southern California region will have similar impacts. Resolution of regional water supply problems is beyond the scope of this EIR. This EIR was prepared by WESTEC under an agreement with the City; it contains no arguments by the developer unless specifically identified as such.

SCHOOL AVAILABILITY, This section of the EIR is written in a vague and ambiguous manner. The EIR (pp. 82, 84) states that schools within the area are at or above capacity. The school districts have no sites in the EastLake area nor the funds to provide the necessary facilities (p. 82). I call your attention to mitigation discussion (p. 83) second sentence reads: "Developer funding would be necessary to finance construction of schools". What does this mean? Now to p. 85, 2nd sentence "Dedication of school sites plus payment of development fees--" next sentence: "payment of fees to the district to allow expansion of existing facilities to accommodate EastLake students until community schools were built----". Nowhere does this mitigation spell out specifically the responsibility of the applicant nor how the funding and maintenance of schools will occur in an almost financially defunct school system.

12g

12g. Please refer to comments 7a and 7b, and the revised EIR sections pertaining to school availability.

COST ANALYSIS: (Appendix D) Table A shows the Benefit/Cost ratio and Yield on projected city investment an alarmingly small margin. Any projection errors or mistaken estimates directed to the down side of revenues and/or the up side of costs will create a "negative economics of scale" or "projected negative cash flows" for city investment. This is alluded to on p. 2 of Gobar's report which states, "Theoretical studies have indicated that with increased levels of activ-

ity, city budgets frequently increase faster than the levels of activity". Another statement by Gobar on p. 9 supports an expected deterioration of Benefit/Cost ratios "at the completion of the third phase, the Benefit/Cost ratio will drop to 1.04/1, as a result of a more rapid increase in population than the increase in non-residential facilities during the completion of the third phase". All of these above comments and quotes suggest a strong possibility that EastLake could become a severe economic burden to the residents and taxpayers of Chula Vista. A "Catch 22" statement is found on p. 165 of the EIR: "However, net revenue may vary in actuality if costs to the city to provide services increase at a faster rate than currently observed or if capital improvements must be financed through the city to provide needed community services". No mitigation is provided; yet specifics must be provided to offset the many "ifs" which occur in this section of the EIR. *See page 4

12h

12h. The cost/benefit analysis was based on information which was available at the time the EIR was prepared. Due to changes over time, there is always some speculation in a projected analysis of this type. Supplemental fiscal studies may be completed if considered necessary by the City. Tables 14A and 14B in the Final EIR reflect revisions in the fiscal analysis. Also see response 11d.

DRAINAGE: The EIR addresses in a haphazard and superficial manner the intensity of the flood hazard impacts and subsequent mitigation for the Long Canyon area. The EIR states (p. 130) that a serious flood hazard area in terms of the risk of property damage exists at the mouth of Long Canyon and the upstream natural channel is inadequate to contain larger peak flows. It also states that no major drainage facilities exist or are proposed within this area and that peak run off will be increased and significantly impact downstream drainage facilities. I refer again to Section 21083 of CEQA which says that the possible effects of a project are cumulatively considerable. It is time now for Chula Vista to accept its responsibility for impacts to Long Canyon. The following projects have been approved and some completely built out by Chula Vista and each has contributed increased run off to the Long Canyon Basin: College Estates, no mitigation, no improvements; Bonita Haciendas - no mitigation - no improvements; Bonita Ridge Estates - mitigation included only flow design facilities. Gersten's Long Canyon project - 450 acres draining into Long Canyon - no specific mitigation demanded - left until a later time in the project. Now 228 acres of EastLake will drain into this channel. Again this EIR only hints at various mitigations. The applicant's responsibility is not called down and the cumulative impact is not adequately addressed. P. 134 suggests that the problem is not mitigated to a level of insignificance and p. 133 states that no specific measures are presented to mitigate potential drainage problems associated with urban development of the site. Something must be done now or our community cannot survive. In conclusion, we find that the EIR can best be characterized by its euphemistic

12i

12i. Drainage impacts to Long Canyon were identified in the EIR as potentially significant, and mitigation measures will be required. As a condition of development, the project applicant will assure that runoff will not exceed pre-development levels. (Two retention basins are indicated on the Bonita Long Canyon Sectional Area Plan with the first to be constructed as part of Phase 2.) For each Sectional Planning Area within EastLake, supplemental environmental and engineering review will occur to assure that the necessary drainage improvements are made. Site specific analysis would be completed when those more specific proposals are evaluated.

N
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R-11918

style. It took considerable effort to read beyond this euphemistic style for the reality of the meaning of the significant adverse impacts of this project. Therefore the Long Canyon Homeowners' Association and Sweetwater Valley Civic Association make the following recommendation:

That the EIR for the EASTLAKE PROJECT NOT BE APPROVED AS ACCURATE AND IN COMPLIANCE WITH CEQA until extended studies are made in the areas which we have addressed and until full compliance has occurred with Section 21061.1 of CEQA which states that feasible means capable of being accomplished in a successful manner within a reasonable period of time must be addressed in the environmental document.

*EXCERPTS FROM APPENDICES D EXHIBIT II 1
PAGE 10

<u>PHASE</u>	<u>BENEFIT/COST</u>	<u>YIELD</u>
1	1.05/1	.047
2	1.08/1	.075
3	1.04/1	.038

TABLE A - PLANNING DEPARTMENT'S REVISIONS

<u>PHASE</u>	<u>BENEFIT/COST</u>	<u>YIELD</u>
1	1.03/1	.029
2	1.06/1	.058
3	1.01/1	.014

TABLE A SUPERCEDES EXHIBIT II - 1 AND DIFFERS BECAUSE:

1. City used actual budget figures rather than earlier projected budget used by Gobar.
2. Other differences in calculation between Gobar and City staff.

R.11718

My name is John Kracha and I live at 358 East Millan, here in Chula Vista. I'm going to comment on four areas of concern dealing with the EastLake project, and I'll try to eliminate any duplication that has already been covered. Areas I will address are: Transportation and circulation, sewer services, surface drainage, and the climate and air quality.

The Draft EIR and the supporting Appendix C has covered the problems associated with the project in some detail through the year 2000. The numbers game as to the routes is indeed impressive. As a concerned citizen, I had to look at the transportation problem as a relative one. Rather than counting the cars passing a given intersection at a given time, I was dependent upon the figures that come from the transportation department here from the City. Of the greatest concern was the tremendous increase in the average daily count at the intersection of I-805 and Telegraph Canyon (that's not the exact site, but that's close enough). Today as one looks across the 4 to 6 lanes during the peak traffic period, you wonder how we can accept another 30% increase in the traffic once the new project is in effect, either under Network 1 or Network 2. The introduction of the additional project requires a substantial change to existing roadways through the entire Chula Vista area, and they all will be at the expense of the City.

Route 125 which has previously been mentioned, is critical to the entire development. As pointed out in the EIR and previous comments, Route 125 has not been approved and the question of funding problems for alternative routing is under question. The upgrading of present collector roads to prime arterials has to be funded by someone, and that someone is the citizen already overburdened by various taxes.

I have seen the satellite cities in Virginia and Maryland that are supposed to be self-sufficient. The care and feeding of the EastLake project would impose transportation problems resulting in an adverse impact on the City of Chula Vista.

The San Diego Metropolitan Sewer System presently provides services to the City of Chula Vista. The system is presently operating beyond its 120 million gallons per day capacity. The City of Chula Vista is currently using only 38% of its capacity in METRO. While METRO is attempting to obtain waivers for treatment at the Point Loma facility which are related to Federal air quality standards, no Federal funds are available for new sewage facilities as long as clean air standards are exceeded, and I understand that is presently the situation. This means that all financial support for new facilities must come from within the State because of the inability to maintain compliance with Federal air quality standards. It's a Catch 22 with the citizen on the short end. While the EastLake project represents 20% of the undeveloped land of Chula Vista, a fully sewer project through METRO would use 38% of the capacity for future growth. That hardly seems equitable. The project is totally dependent upon annexation by Chula Vista. If the project is not annexed, the sole sewer agency is the Otay Water District which does not own capacity in METRO.

Surface drainage from the project area would be through four paths of flow. The Salt Creek drainage area eventually empties into the Tijuana River Estuary recently established by the Federal government. As noted during the hearings for that EIR, there is considerable concern on the part of the residents of that area for flooding even with the existing situation. The development of the EastLake Project only increases the flow of surface water to the detriment of those people. Flooding similar to that experienced last year would have a severe impact on the entire

13a.

The costs of street improvements will not be borne by the City but would be funded by private developers. It should be noted that while substantial improvements will be required, these are not due solely to the EastLake project.

13b.

Please refer to the revised discussion of sewers, including status of the METRO waiver, in the EIR.

13c.

Salt Creek drains into the Otay River which in turn empties into the southern end of the San Diego Bay, and not the Tia Juana River Estuary.

(John Kracha)

existence of our wildlife estuary.

The Telegraph Canyon flow is presently under study by the U. S. Army Corps of Engineers. It is presently in the preliminary planning stages. That means action is a long way off. The Proctor Valley and Long Valley drainage areas converge on Bonita. Most remember the recent floods that nearly destroyed the golf course and flooded out several of the businesses. The project adds an increasing burden on flooding prevention without benefit to nearby residents.

Several weeks ago I was on business in the area of Brown Field. It was during a smoggy Ana condition. For the first time in nine years the smog was so bad that I couldn't stop crying. The recent monitoring data near the Eastlake project has already shown violations of State and Federal standards for ozone, nitrogen oxides and total suspended solids. The statistics bear out my fear of continuing pollution. I would the proposed project be completed in addition to the growth forecasted for the remainder of the Chula Vista Planning Area, the increased transportation requirements would cause an increase in vehicular emissions beyond those seen in the Regional Air Quality Strategy. Thus, strategies developed for submittal to the California State Implementation Plan may not be adequate to reduce the regional emissions to the required level.

The existing plan for the EastLake project is not in good keeping with our objective of survival. I have addressed only these four areas as they affect our health and very existence--and my wife agrees. Thank you.

13d.

Runoff from the project site will be restricted to pre-development levels as a condition of development, thus no increased flood flows would result.

13e.

Air quality impacts are identified as significant in the EIR.

12-11718



**San Diego Chapter
of the Sierra Club**

House of Hospitality, 1549 El Prado, Balboa Park
San Diego, California 92101

November 18, 1981

Planning Commission, City of Chula Vista
1604 4th Avenue
Chula Vista, CA 92010

Dear Commissioners:

The Sierra Club recognizes that you are considering a very large development proposal with far-reaching impacts. We know you are going to consider the Eastlake proposal very carefully, and we would like to lay our concerns before you as you are weighing its benefits and its costs.

- 1) It is a leapfrog development far beyond the urban limit line in both County and Chula Vista plans.
- 2) While you are still putting together a comprehensive plan to relate the urbanized area with the large, undeveloped area in your hinterlands - a plan that will stand the test of time so that 25 years from now, people will look back and say "Chula Vista planned well" - you are being asked for a commitment to one developer, one project that will foreclose many of your options for these hinterlands in the future plan. We hope you will get the plan established first in order to guide development to where you have decided it should go and in what amounts, rather than let the cart get ahead of the horse.
- 3) The project will require a far-reaching change in land use designations from intensive agriculture and very low density to urbanization, in effect a South City West with a density 23 times what the plans now call for. Even though development is to be phased in small nibbles, you are being asked to swallow the whole morsel at once.
- 4) Yes, you say, but services are available, and the developer will pay for the capital costs of facilities, and we will have the tax money generated by each phase to pay for the services. Let's look at some of those services:

Water: Otay MWD assures - but the Dept. of Water Resources and MWD are not so sure. There is talk of renegotiating contracts and shortages even if the "Parishal Canal" bill (SB 200) is passed, because it will be more than 10 years before more than a trickle of new water (not replacement water) is available. And the ability to pay for new water development is as uncertain as today's economy. Yet, you are asked to commit to a 7.5 mgd (8400 acre-ft/yr) new service area, and will then be badgered to provide even more water for the leap-frogged area which is likely to develop as well.

14

These comments are directed towards the project and do not challenge the accuracy or sufficiency of the EIR. Thus, no response is necessary.

14.

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Sewage treatment: Again, Otay MWD volunteers, but they are already experiencing difficulties and high costs of providing land disposal for 1 mgd of treated effluent. Where will they put more than twice that amount? Fees can buy treatment plants, but they can't buy land that is too expensive or not available. Meanwhile, you are asked to overcommit present sewer capacity in the Metro system based on the certainty that new sewer lines and capacity will be available in the near future. You know, however, that the federal and state role in providing funds for wastewater treatment is being rapidly transferred to local governments. Although the developer may put up the capital costs, the operation, maintenance, replacement of aging or poorly designed systems, and the salaries will be the responsibility of local government. Will tax money generated by Eastlake be available when you need it?

Roads, schools, libraries, fire and police protection: The same thing is true. The short-term capital costs can be made conditions of the project, but where are the assurances that address your long-term liability?

- 5) The loss of farmland must be measured not in terms of the dry-farmed barley which has been produced only as an interim crop until the owners were ripe for development, but in terms of the potential for raising 2-3 crops each year of vegetables (especially tomatoes), nursery products and flowers on moderately good soils in the benign coastal climate. You should not give up this irreplaceable acreage without the justification of overriding need. The Eastlake Plan to keep "agriculture" alive as long as possible is not likely to work, because of friction between farmers and homeowners over dust, noise, trespassing, etc. Would it not be better to offer incentives to developers to build within the present city limits and allow agriculture to be truly productive on Eastlake land? The costs of imported water are not a valid excuse for the loss of farm operations because, as we shall see, there is another source of water.
- 6) It is hard to justify the loss of this farmland, because four times as much undeveloped land is already available for urban development within the boundaries of the planning area. Is it likely that the owners of this land will agree to let Eastlake have 2/5 of their share of sewer capacity and 3/4 of their share of new housing? Not very likely - so you are being asked to commit Chula Vista and this planning area to a population far beyond what the plans call for until well after 1995.

THERE IS AN ALTERNATIVE TO EASTLAKE, one that should also be looked at very carefully. It is an alternative that would utilize present resources more effectively rather than simply increase demands on them.

Chula Vista is going to grow; where are the land and water resources to support this growth? They are in the very site you are being asked to pave over with a South City West.

a-11918

Potential agricultural land can utilize treated reclaimed water, eliminating the need for 8400 acre-ft/yr of additional imported water and easing the problem of sewage disposal. Acre for acre, cropland can use far more treated effluent than urban landscaping, much of which would have to be planted solely for the purpose of disposing of the effluent. Would it not be better to use the effluent productively and avoid the need for additional imported water?

Furthermore, Eastlake and Otay Valley lie down-gradient of the Otay WWD treated wastewater ponds. The loss in head from 700 to 400 feet is enough to generate hydroelectric power which could be used to pump the effluent up to the Otay Mesa as well. The City of San Diego is already planning this type of energy recovery in the Metro outfall at Point Loma.

Potential agricultural land can provide jobs for a labor market that now has to walk to the North County, as well as jobs in farm-related businesses. This will bring income to Chula Vista and the planning area; a Farmer's Market will attract shoppers from the adjacent area and could become the nucleus of a tourist attraction as well.

Potential agricultural land can be used once again for grazing cattle. Low-calorie beef is in fashion now, and high energy costs are making transportation of feed to cattle, cattle to feedlots, then to a slaughterhouse, and beef products to market a prohibitively expensive operation for many growers. Perhaps it's time to look again at the feasibility of locally-grown beef production.

There is a difference between agricultural land and agriculture. The suggestions above for the use of potential agricultural land are based on the assumption that a productive agricultural operation will be in effect, not a "holding" operation just waiting for development to occur.

In conclusion, like the golden goose, you have a golden opportunity here. It has been neglected and overlooked in recent years when cheap gas and electricity made distant agribusiness more attractive, but it is still available as an option. It can be placed into productive profitable service again, now that times have changed, and times do change, which makes it so important not to allow the irrevocable loss of potential agricultural land to short-sighted visions.

The recent state convention of Resource Conservation Districts devoted almost its entire program to discussion the need for the protection of important agricultural land and preventing its loss to the bulldozer of misplaced development. Our loss of farmland is a national disaster in the making, according to recent news articles. But it is at home, where local land-use decisions are made, that the critical steps in farmland protection begin.

NOTE:

R-11918

MOST IMPORTANT COMMODITIES 1980

Nursery Products
Avocados
Tomatoes

\$89,208,000
\$30,743,000
\$25,303,000

Eggs
Milk
Valencia Oranges

\$59,831,000
\$30,743,000
\$25,303,000

SUMMARY

	1979	1980
	Acres	Value
Field Crops		
Fruit & Nut Crop:		
Bearing	18,384(a)	\$ 2,878,000
Nonbearing	37,149	\$ 80,848,000
Vegetables	7,810	\$ 74,881,000
Nursery Products & Market Flowers	10,539	\$ 86,325,000
Livestock & Poultry	3,835	\$ 19,036,000
Aquatic Products		\$ 100,033,000
TOTAL	75,727	\$ 385,301,000

(a) Not including uncultivated range and pasture land acreage.

NOTE: Except where the value per acre is especially significant, the acreage, production, and value figures in this report have been rounded as follows:

1. Over \$100,000 - rounded to nearest thousand.
2. Under \$100,000 - rounded to three significant digits.
3. Totals may not add exactly due to rounding.

FIELD CROPS: ACREAGE, PRODUCTION, AND VALUE, 1980

Crop	Harvested Acreage	Per Acre	Total	Unit	Per Unit	Total
Barley (Green)	4,590	g	3,664	Ton	\$ 127	\$ 468,000
Beans, Dry edible	550	1.2	660	Ton	\$ 720	\$ 475,000
Blackeyes, Lima	106	26.0	2,730	Ton	\$ 14	\$ 38,000
Greenchop	191	8.3	1,253	Ton	\$ 92	\$ 115,000
Hay, Alfalfa	7,077	1.3	9,200	Ton	\$ 53	\$ 366,000
Pasture & Range (Irrigated)	934	xx	xx	Acres	\$ 100	\$ 93,400
Other	382,000	xx	xx	Acres	\$ 1	\$ 382,000
Silage	144	27.0	3,888	Ton	\$ 19	\$ 72,800
Wheat(a)	1,335	.5	668	Ton	\$ 200	\$ 134,000
TOTAL	378,876	xx	xx	xx	xx	\$2,812,000

(a) Includes wheat grown for seed.

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SD Union
10-26-81

STARTED WITH FEDERAL GRANT

Southeast S.D. Farmer's Market Thrives; Others Possible In Area

By SUZANNE CHONEY
Staff Writer, The San Diego Union

A recently opened farmer's market in Southeast San Diego is doing such a brisk business that others may follow in Escondido and Vista, said market manager Robert Tambuzi.

Located at 1343 Ocean View Blvd., the farmer's market has been getting between 300 and 1,000 customers each Saturday, the only day of the week it is open, although more market days are possible, Tambuzi said. The market is open from 9 a.m. to 2 p.m.

Started last month with a \$10,000 grant from the U.S. Department of Agriculture, administered through the state Department of Food and Agriculture, the market offers consumers the opportunity to buy fresh fruits, vegetables, baked goods, milk and eggs at about a 30 percent discount. The goods are sold directly by small farmers saving them the costs of shipping and packaging.

About 50 farmers' markets are being established around the state, mainly in low-income areas, with the goal of having the markets become self-sufficient.

Farmers who sell their goods must receive approval from the county Agriculture Department, which certifies that the farmer has actually grown the produce he is selling. Farmers pay from \$5 to \$15 for a

and market plans — besides seeking expansion — will also include consumer education.

"We want consumers to be more intelligent shoppers," Tambuzi said. In addition, the market has been sponsoring a free hypertension testing clinic, and information on sickle-cell anemia and nutrition will be available in the future as well, Tambuzi said.

In the meantime, the market's prices should be enough to keep customers coming. One hundred pounds of potatoes, for example, can be bought for \$8 — compared to regular market prices of between \$9 and \$9 cents a pound, Tambuzi said.

Avocados, typically about 49 cents a pound at the supermarket, are five for \$1 at the farmer's market. A gallon of milk is \$1.59, compared to \$2.12 at the store. And the list goes on.

The prices are basically set by checking them against the prices on the retail and wholesale Los Angeles produce market, and are posted at the farmer's market for customers to check. Bartering is definitely part of the shopping trip, Tambuzi said.

"The people enjoy it, talking with the farmers who are out. If all goes down to good old-fashioned bartering as they talk each other down on prices, it's a real professed sociological event," he said of the market.

"It's more than just going to the store.



sell at the market, depending on the volume of produce they bring to sell. So far, Tambuzi said, "the only thing that consumers have been critical of is that we haven't been there every day."

The majority of the customers live in Southeast San Diego, where a long-time community complaint has been the lack of supermarkets and high-quality produce in the stores.

"The shopping situation is pretty shabby," Tambuzi said. "The 70,000 to 80,000 people who live in Southeast often have to go outside the area to shop. A large number of them are on fixed incomes, and it's difficult for them to get transportation."

Tambuzi works for Community Congress, which obtained the grant.

R-11918

California Leads U.S. In Production Of 48 Commodities On 3% Of Farm Land

California farmers and ranchers consider water and pesticides among major issues facing them in the years ahead, according to a consensus determined by the Council of California Growers.

"While agriculture is greatly concerned with a wide range of problems — including energy, labor laws and regulations, land use and the overall economic picture — the immediate priorities are water and chemicals," said Robert W. Long, president of the statewide council.

Water is both a short and long range problem, said Long.

"Simply put, the agricultural community wants to be assured that it will have enough water at the right place and at the right time to irrigate," he said. "What is most important is developing additional water supplies for the future — not operating in a crisis-oriented situation where there is a constant threat of shortage."

An agricultural economy is absolutely dependent on water resources. Farmers and ranchers utilize 85 percent of the water delivered in California to produce 23 percent of the nation's table food.

While agriculture is united in its stand regarding development of additional water supplies, it is split on the methods of obtaining them. Controversy exists over construction of the Peripheral Canal, which would carry additional water through the Sacramento-San Joaquin Delta to the water-short Central Valley and southern California.

On the issue of chemicals, the majority of growers find that they are necessary to control and eradicate destructive crop diseases, weeds and insects, if production yields are to be maintained. They are opposed to a growing number of regulations and laws, both at the federal and state levels, that arbitrarily restrict their use.

Long said California already possesses sufficient safeguards against misuse of pesticides that threaten the health and safety of workers or consumers.

Agriculture is pushing for additional research programs on Integrated Pest Management (IPM), a system whereby chemicals, biological techniques and economic cultural practices are combined to control pests.

"A good example of IPM was the battle in Santa Clara County to eradicate the Mediterranean fruit fly," Long said. "Sterile male flies were used along with chemicals and removal of host foods in an effort to wipe out the pest," he said.

A recent public opinion survey showed that many of the issues facing agriculture — and threatening its existence — are little understood.

It is the purpose of the Council of California Growers to clarify these issues with factual, informational and educational programs, and to assist the news media in thorough exploration of all facets of an issue so that informed public judgments can be attained.

Unlike aerospace, electronics, manufacturing and ranching is taken for granted more often than not. Yet, the food chain — from the field to the supermarket — provides benefits to everyone who lives in the state.

Although California's 33.4 million acres of cultivated land comprise only 3 percent of the farmland in the United States, the state produced nearly 10 percent of all agricultural cash receipts in the country in 1980.

California leads the nation in production of 48 different crops and livestock products. Among these, California produces 100 percent of the total U.S. output of four crops; more than 90 percent of another eight crops, and more than half the production of an additional 18 commodities.

Agricultural production in the state is widely diversified. More than 20 crops and livestock commodities produced \$1.6 billion in farm revenues in 1980.

Of 10 leading agricultural counties, the nation's eight are located in California. Fresno County, alone, ranks high in gross agricultural receipts than 18 of the states.

During 1980, California maintained its position as one of the nation's leading exporters of agricultural products along with Illinois and Iowa. It estimated that more than one-fifth of California's agricultural production was exported.

Cotton, fruits, nuts and cereals dominated the great variety of agricultural products exported through California last year. Raw cotton was the state's major agricultural export, constituting 52 percent of the value of total U.S. cotton exports.

According to statistics compiled by the Council of California Growers, agriculture is important to all segments of the economy.

One in four jobs on and off a farm is related directly or indirectly to agriculture. In the transportation industry, trucks are used to move more than 80 percent of California produce. Railroads and seaport facilities are utilized, as well as airports.

Those employed in making consumer plastics, steel and machinery benefit from agriculture. Farm workers, warehousemen, market clerks, wholesaler-salesmen, advertising agency employees, processing plant workers and bank employees also are affected by agriculture.

The high productivity of California farmers and ranchers provides a great variety of food in more than any other country in the world — despite inflation. California's leading farm crop in 1980, according to figures computed

Q-11918

the state Department of Food & Agriculture, **CSI cattle** with gross cash receipts totaling \$1,836,034. Next in line were milk and cream, \$1,452,153. Cotton ranked third, with \$1,312,011. Following were grapes, hay, almonds, processing tomatoes, nursery products, lettuce, eggs, flowers and young rice, oranges, wheat, chickens, strawberries, walnuts, peaches, turkeys and sugar beets.

The state produces 100 percent of the U.S. crops of ladino clover seed, olives, plums and prunes; nearly all of the almonds, pomegranates, figs, dates, tangerines, apricots and broccoli.

The state leads the U.S. in growing of grapes, safflower, processing tomatoes, avocados, cauliflower, strawberries, lettuce, lemons, honeydew melons, cantaloupes, celery, peaches, spinach, lima beans, asparagus, carrots, peas, alfalfa seed, onions and several other commodities.

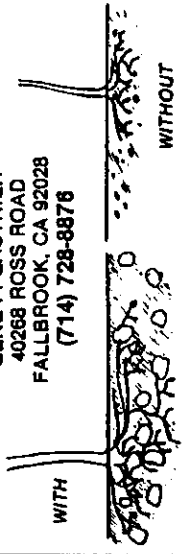
California agriculture — producing more different crops than any other state, most of which are native to foreign countries — is indeed a microcosm of the planet on which we live.

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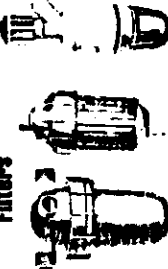
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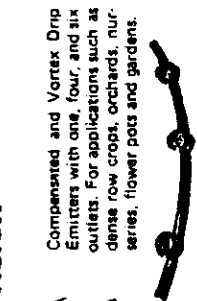
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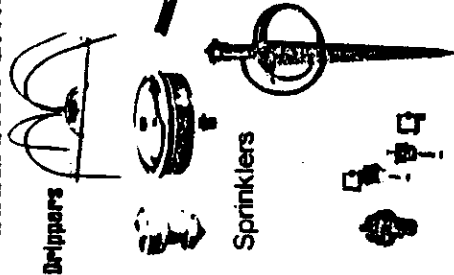
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August 1981

R-11918

Sweetwater Valley Clubs Association
South California

November 19, 1981

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

RE: ENVIRONMENTAL REVIEW OF PROPOSED EASTLAKE PROJECT

Dear Mr. Reid:

On behalf of the Sweetwater Civic Association, I would like to express the following concerns on areas which I feel were inadequately addressed by the Environmental Impact Report on the proposed Eastlake Project. These areas include: traffic, drainage, schools, water resources and economic viability. We would request that our comments regarding these items be included in the final Environmental Impact Report.

TRAFFIC

The Eastlake Project calls for 11,800 dwelling units on approximately 3,000 acres and calls for a projected increase in population over its 20-year phased development of approximately 30,000 people. The impacts with regard to traffic in the Bonita area are extensive. While it is easy to indicate that traffic impacts can be mitigated by widening roads, extending freeways and creating roads, it is far more difficult to address the impacts on off-site areas due to the increased road capacities and traffic congestion. It is beyond reason to think that the major road changes and classifications proposed for the entire Bonita area can be reduced to the extent indicated in the EIR, to quote: "If the project development is phased with needed circulation improvements, the potential impacts would be reduced to insignificance." (See EIR, page 5) Logic is stretched to reach this conclusion from the facts presented in the Environmental Impact Report. The environment currently existing in the Sweetwater Valley area would be substantially affected by the changes proposed.

Even more problematical, however, is the total disregard for the jurisdictional boundaries, and general plans of areas outside the City of Chula Vista. Further disregard is made to road and funding deletions made by CALTRANS. Page 66 of the EIR indicates certain mitigation measures which are proposed off-site to offset the impacts of the increased traffic

15a

15b

15a. Please refer to responses 11c and 12a.

15b. The study area is included within the Chula Vista Planning Area and land use assumptions were based on designations within the Chula Vista General Plan. It is acknowledged that other agency designations are not identical to those of Chula Vista.

8-11918

15c. The comment regarding funding limitations is noted. The road proposed along the alignment of Route 125 is not the original freeway but is located to serve a similar function. This road is planned to be constructed as a condition of development for EastLake.

15d. Please see response 11c.

15e. Please see response 12d.

15f. Adequate road improvements will be required as conditions of project development to mitigate adverse impacts. A phasing plan including facilities improvements and a financial program will be completed before the first Sectional Area Plan and would have to be approved before any development is permitted.

15g. Costs associated with street improvements will be borne by the developer.

on surface streets. Both SR-125 and SR-154 are proposed as mitigation measures. Nowhere in the Environmental Impact Report does it indicate that SR-125 was dealt its death knell by CALTRANS and is completely deleted from future construction plans by that organization. SR-54 has also felt the effect of decreased budgets and is not now proposed to be upgraded to freeway status.

Possibly even more problematical are the changes proposed for Bonita Road. Page 67 of the Environmental Impact Report proposes that Bonita Road be a six-lane, divided major arterial. Once again, the proposal ignores the boundaries of the County as well as the County General Plan and road designations in that General Plan.

Sweetwater Road between SR-54 and Bonita Bridge has been designated as a scenic highway within the County General Plan. Clearly, widening the same to major arterial status would destroy that scenic highway, totally abrogating the County General Plan.

While it is granted that the major road provisions called for as mitigating measures to the Eastlake Project could possibly allow the projected increased traffic to travel over the area, it is believed that this environmental review should take into consideration the lack of likelihood of the eventual proposal taking place. The EIR should address the impacts on those communities that are going to experience the large increases in traffic if the mitigating measures are not fully implemented. "Traffic impacts on roadways outside the Eastlake Project site would result if adequate improvements are not implemented." (See EIR at 67)

Finally, in this age of austerity with regard to city government, no provisions are made within the EIR as to where funding might be acquired for the substantial road improvements necessary to allow the project to be developed. Once again, an assessment should be made of the likelihood of accomplishing the mitigating measures, rather than merely relying on the blanket statement that something can be mitigated by using an improbable solution. It is interesting to note that in the cost/benefit analysis, contained in the Appendix and discussed hereafter, nowhere does it indicate any extensive amounts of moneys to be expended by the City for road off-site improvements. Adding such road expenses to the City, the anticipated cost/benefit ratio clearly makes the City in a negative cashflow position with regard to this project.

SCHOOLS

While it is normal for developers to provide school sites within a phased planned development, it is abnormal for the

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developer to pay all necessary funding to construct the school. This is the case with Eastlake. Once again little regard is given to the slim prospect that the Chula Vista City schools or the Sweetwater School District would be able to afford the construction of needed new schools.

The developer, as per the EIR, assumes responsibility for securing the land and financing the construction of new schools. No indication is given as to the availability or projected availability of moneys necessary to construct the schools or the ability to pay the substantial amounts to the developer for his financing of the same. Therefore, it is highly unlikely that "no significant impacts will result." (See EIR, page 83) An economic analysis should be made in the Environmental Impact Report projecting the anticipated feasibility of the construction proposals.

WATER AVAILABILITY

As the EIR adequately indicates, the State of Arizona is in the process of constructing canals to divert significant Southern California water to its own use. This will cut the current supply of water to Southern California by approximately 15%, based on population figures currently existing. The development of the Peripheral Canal is clearly a very hot political item and even were the project to be approved, it would not be available until 1990.

No indication is made in the EIR as to the effect of Arizona's usage of water prior to the building of the Peripheral Canal and during the first phasing of the proposed Eastlake Project. Furthermore, no indication is made as to how this project would impact the overall water availability if the Peripheral Canal is not constructed.

It is clearly for governments at the state and local levels to take into account the possibility that Southern California will be facing a major water crisis if the Canal is not built. Prospective development prior to the construction of the Peripheral Canal should at the very least be conditioned upon the Canal being built and construction should be delayed until such time as it is complete.

To anticipate, as the EIR would like us to, that the overall effect of the project is going to be mitigated by remedying the "wasteful and inefficient uses" that the public currently puts it to is in this writer's opinion Pollyannic. The EIR should address itself to the hard reality that the State of California and particularly Southern California is likely to confront in the event that the Peripheral Canal is defeated. Substantial political opposition exists in Northern California and the increased taxes necessary to construct the Canal may deter

15h. Please refer to comments 6 and 7 and the revised section of the EIR.

15h

15i. Please refer to response 12f.

15i

R-11918

numerous voters in Southern California from supporting the project. To anticipate its construction without addressing the possibility of its nonexistence fails to address a very real and significant environmental concern.

DRAINAGE

The surface Drainage Section of the EIR also is an area of intense concern because of its inadequacy in addressing the flooding problem of the Long Canyon Area. Over 200 acres of the project, representing 19% of the Long Canyon Watershed, will directly impact upon the Long Canyon Basin. (Table 3-8, page 129) The problems and hazards of flooding private properties in the Long Canyon Basin are well documented via public hearings, media reports, and correspondence with legislative and jurisdictional agencies. Specifically, we feel that the EIR does not adequately address the cumulative impacts of this project upon the Long Canyon Basin nor is any specific mitigation offered for the alleviation of these impacts. Of great significance also is that Central Creek flooding problems will be aggravated by off-site impacts of the Eastlake Project at the Proctor Valley/Sweetwater River junction. (Table 3-8, page 188). These impacts and no mitigation are discussed in the text of the EIR.

ECONOMIC ANALYSIS

The cost/benefit ratio set forth on Exhibit 2-1, page 10 of the EIR Addendum as well as the Planning Department's own revisions of those figures indicate an alarmingly small ratio of projected tax revenues over projected costs. Any projection errors or mistaken estimates directed to the down side of revenues and/or the up side of cost will create a "negative economics of scale" or "projected negative cashflows" for City investment. This condition is alluded to on page 2 of Gobar's report: "Theoretical studies have indicated that within increased levels of activity, city budgets frequently increase faster than the levels of activity." That same report on page 9 support an expected deterioration of the cost/benefit ratios: "At the completion of the third phase, the cost/benefit ratio will drop to 1.04/1, as a result of a more rapid increase in population than the increase in non-residential facilities during the completion of the third phase."

All of the foregoing comments and quotes coupled with the EIR's failure to address the very real prospect of increased costs for off-site improvements suggests a strong possibility that Eastlake could become a severe economic burden to the residents and taxpayers of Chula Vista. The Environmental Impact Report should address whether this project is appropriate on a negative cashflow basis, particularly since even the projected yields are of such a minimal amount.

Sincerely,

Jack C. Bunker
JACK C. BUNKER, President
Sweetwater Valley Civic Association

8-11-1918

15j

15j. Please refer to response 12i. Mitigation is prepared in the EIR which includes construction of retention basins. No increase in drainage will occur.

15k

15k. Please refer to response 12h.

Sun Diego
ASSOCIATION OF
GOVERNMENTS

Suite 524, Security Pacific Plaza
1240 Third Avenue
San Diego, California 92101
(714) 236-5200

November 18, 1981

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

SUBJECT: DEIR Eastlake Planned Community

Dear Mr. Reid:

SANDAG staff has reviewed the subject report. The following comments have not been reviewed by the SANDAG Board of Directors.

The Final Environmental Impact Report should address the following comments:

1. As noted in the Draft EIR, "Specific plans for sewage disposal have not been determined..." This is due to the fact that the area was expected to remain in agricultural use for at least 10 to 15 years. A complete restudy of sewer service capacity will be required if this major development is to proceed. The likelihood of another so-called reclamation plant to serve the Salt Creek area is remote, given the high costs experienced by Otay Metropolitan Water District at its Jamacha Basin Plant. Thus, that subarea continues to be premature for such urban service. Permanent long-term solutions are necessary to assure that costs of sewer service need not be paid twice; once for interim service and later for permanent facilities.
2. If Eastlake is approved as proposed, inconsistencies with regional forecasts will be so substantial that reasonable measures to mitigate the adverse impacts of premature growth do not seem likely. Mitigation would have to be accomplished by a deferral of development in other portions of the South Bay.

Thank you for allowing SANDAG to participate in the City's review process. If you have any questions regarding the comments, please contact me at 236-5375.

Sincerely,

JOAN K. MARTIN
Director, Area-wide Clearinghouse

JRM/DA/ce

C82-78

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16a. The EIR noted the potential for significant sewer service impacts unless mitigation is implemented. Before full development of Phase I, supplemental environmental work will be required, and the availability of capacity to sewer the project will be further evaluated. If a reclamation plant is not provided for sewage disposal, alternate forms of disposal would be required and would be subject to further environmental review. This would likely involve extensive offsite sewer line extensions. In either case any solution would be a permanent one.

16b. The EIR identified this issue under growth inducement and concurs that the proposed development is premature. To avoid this impact, development could be allowed to occur only in conformance with the existing general plan designations.

AND RESEARCH
TENTH STREET
SACRAMENTO 95814

Doug Reid
Environmental Review
City of Chula Vista
P.O. Box 1000
Chula Vista, CA

(714) 236-2015 • San Diego
Local Agency Formation Commission
1600 Pacific Highway • San Diego, CA 92101

November 30, 1981

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Marjorie Hanson
Alpine Fire Protection
District

TO: Douglas Reid, Environmental Review
Coordinator, City of Chula Vista

FROM: Ann Hix, Environmental Administrator
East Lake Draft EIR

SUBJECT: East Lake Draft EIR

Thank you for the opportunity to comment. We feel that the concerns we expressed in reviewing the Preliminary Draft have been resolved, and that this Draft is adequate for our purposes as a Responsible Agency.

17. No response is necessary.

AH:ib

8111218

State of California

GOVERNOR'S OFFICE
OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

LEONARD G. BRONK, JR.
GOVERNOR

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

December 4, 1981

SUBJECT: Eastlake Planned Community DEIR - SCH# 80121007

Dear Mr. Reid:

The State Clearinghouse has completed its review of the draft environmental impact report (DEIR) for the Eastlake project. In reviewing the document, the Clearinghouse found it to be very comprehensive. The extensive research and analyses of various issues involved with the project is evident. Other State Agencies have also completed their review of the environmental document. If you would like to discuss their concerns, please contact the staff from the appropriate agencies.

Clearinghouse concerns with the project include: project location and associated impacts on services, loss of agricultural lands, phasing of the project, housing and employment concerns.

SERVICES - SEWER

The proposed project, located 7.5 miles east of downtown Chula Vista, will be costly to service, especially considering the extension of sewer systems and a transportation network to the site. Sewer services, in order to reach the area, must be extended anywhere from 9,200 feet to ten miles or more. According to the document, the developer would be required to cover the costs for extension of temporary sewer lines and a reclamation plant, if needed (p. 76). However, will the City have to cover the majority of the costs for extending sewer lines? If so, the City should compare the costs of extending sewer to Eastlake with the costs of extending sewer to a project contiguous to existing urban development.

18a

18a. The project developer will be responsible for all capital costs including those associated with any extension of sewer lines.

TRANSPORTATION

An extensive traffic impact study is included with the DEIR. The city, likely to bear the burden for highway construction costs, should analyze the costs for extending a highway network to Eastlake. Fiscal and environmental constraints and alternatives can be looked at. Again, how would the project, located adjacent to existing urban areas, be more cost effective?

18b

18b. The City will not be responsible for the costs of street improvements. An adequate circulation system is to be assured as a condition of development.

18c. Public transit busses can service the area, according to the DEIR. The document should discuss public transit access to commercial and retail

18c.

Public transit access to commercial and retail development, as well as residential and industrial areas should be addressed during subsequent environmental review of more specific development plans. Handy-Trans services (demand responsive transit service for the handicapped and elderly) would be provided to the project area as needed.

A. 11918

development. Also, it is not clear whether services for the handicapped will cover the project area and how adequate these services will be.

PHASING DEVELOPMENT STAGES

Phasing of development, as proposed, should be done with areas closest to Chula Vista being developed first. In the proposal, it appears that most of phase two is further from the existing city boundaries than phase three. Particular reasons for the timing of these phases should be discussed in the DEIR.

18d

HOUSING

The housing section of the DEIR does not mention any provision for affordable housing in the Eastlake plan. The DEIR should discuss this especially considering the scope of the project.

18e

EMPLOYMENT

The document needs to further address how the project will link jobs to housing. The document addresses the employment opportunities that will result from the development. However, methods to encourage employing Eastlake residents close to home is only discussed as an alternative. The Clearinghouse supports using these methods (p.106) in the plan for Eastlake.

18f

When preparing the final EIR, you must include all comments and responses (CEQA Guidelines, Section 15146). The certified EIR must be considered in the decision-making process for the project. In addition, we urge you to respond directly to the agencies' comments by writing to them, including the State Clearinghouse number on all correspondence.

A recent Appellate Court decision in Cleary v. County of Stanislaus clarified requirements for responding to review comments. Specifically, the court indicated that comments must be addressed in detail, giving reasons why the specific comments and suggestions were not accepted and factors of overriding importance warranting an override of the suggestion. Responses to comments must not be conclusory statements but must be supported by empirical or experimental data, scientific authority or explanatory information of any kind. The court further said that the responses must be a good faith, reasoned analysis.

Section 15002(f) of the CEQA Guidelines requires that a governmental agency take certain actions if an EIR shows substantial adverse environmental impacts could result from a project. These actions include changing the project, imposing conditions on the project, adopting plans or ordinances to avoid the problem, selecting an alternative to the project, or disapproving the project. In the event that the project is approved without adequate mitigation of significant effects, the lead agency must make written findings for each significant effect,

13d.

There are three major phases of development which are planned for EastLake. Within each major phase, individual areas are to be developed generally from west to east. The phase three areas are further from the existing city boundaries than much of phase two. However, they were indicated as the last phase of development due to requirements for service extensions, access improvements and drainage basin location.

13e.

The applicant has proposed to include a provision which will require that 10 percent of the 11,800 dwelling units proposed be affordable for low and moderate income households.

13f.

In order to effectively provide housing and employment opportunities in the project area, each phase of development is designed to include a mixture of housing types and industrial and commercial uses. As a condition of approval development, the developer will be required to complete a percentage of the industrial development prior to residential development beyond a certain level. The precise levels have not yet been determined.

Q. 11918

(Section 15088) and it must support its actions with a written statement of overriding considerations for each unmitigated significant effect (Section 15089).

If the project requires discretionary approval from any state agency, the Notice of Determination must be filed with the Secretary for Resources, as well as with the County Clerk.

Please contact Daniel Conaty at (916) 445-0613 if you have any questions.

Sincerely,

Stephen V. Williamson
Stephen V. Williamson
State Clearinghouse

Daniel G. Conaty
Daniel G. Conaty
State Clearinghouse

cc: Ken Fellows, Resources

Q. 11918



DATE: November 24, 1981

- TO: 1) Jim Burns, Projects Coordinator
 Resources Agency
- 2) Mr. Douglas D. Reid
 Environmental Review Coordinator
 City of Chula Vista
 P.O. Box 1087
 Chula Vista, CA 92012

Project Title: Eastlake Planned Community, SCH No. 80121007

Project Description:

Location: San Diego San Diego City of Chula Vista
 (AIR BASIN) (COUNTY) (SPECIFIC LOCATION)

Impacts: 3,073 30,445 11,800 1,428,750
 (ACRES) (POPULATION) (DWELLING UNITS) (ADT) (VMT)

Evaluation of Air Quality Analyses:

Analysis of:	Adequate	Inadequate	Comment Number
Environmental Setting	X		
Impact of Project Proposal and Alternatives	X		
Mitigation Measures for Project Proposal and Alternatives		X	1
Cumulative Impacts			
Consistency Demonstration with Appropriate Air Quality Plans (SIP/AQMP)		X	2
Other			

2-11918

Mr. Burns
Mr. Reid

-2-

November 24, 1981

Comments:

1. As stated in the California Environmental Quality Act (CEQA) Section 21002.1(a), "The purpose of an environmental impact report is to identify the significant effects of a project on the environment, to identify alternatives to the project, and to indicate the manner in which such significant effects can be mitigated or avoided." Page 154 of the draft EIR identifies some possible mitigation measures which, if implemented, could reduce some of the adverse air quality impacts of the project. However, the final EIR should be strengthened to indicate commitments from appropriate entities to implement these measures.

19a

19a. Mitigation measures cannot be made conditions of approval at this stage of project review. Subsequent review can consider compliance with the recommended measures.

2. In reviewing the DEIR, we are concerned that air quality impacts associated with this proposal may offset past achievements in improving air quality. San Diego has one of the most progressive air quality plans in the state. However, there is still a great deal of work to be done to attain clean air in San Diego County. Therefore, we encourage the decision-makers' approval of projects which meet local needs and are consistent with the Air Quality Management Plan (AQMP). This particular project is addressed as being inconsistent with the adopted AQMP for the San Diego area. If this project is to be approved, we recommend that additional mitigation measures, beyond those identified in the DEIR, be implemented to offset unplanned emissions.

19b

19b. The project is inconsistent with RAQS because it proposes development at a location and an earlier time than anticipated by RAQS. All unanticipated emissions create an unmitigated impact to basin air quality. For the City to approve the project offsetting mitigation measures or overriding considerations would have to be identified.

ARB requests notification of future hearings/workshops.

Yes No

ARB request final EIR for review.

Yes No

Reviewed by Beverly Daniels (916) 445-0960
(NAME) (TELEPHONE NUMBER)

Sincerely,

Gary Agid, Chief
Local Project Support Branch

cc: R. Sommerville, San Diego APCD
D. Conaty, OPR

PA-11918

Memorandum

To : Headquarters

Date: November 23, 1981

Ann Barkley

File : 11-SD-305
6.7

Chief, Division of Transportation Planning

Department A-95 Coordinator

From : DEPARTMENT OF TRANSPORTATION
District 11

Subject: SCH #80121007, Eastlake Planned Community

Caltrans District 11 Comments on the Draft EIS are as follows:

- 20a. 1. Page 56 states that State Route 125 was deleted from the future State highway system. That implies an action which has not been taken by the State Legislature. Actually, the deletion was "from the Regional Transportation Plan".
- 20b. 2. Pages 5 and 66 call for the construction of SR 125 as a four-lane prime arterial between the project and SR 54. It should be understood that local government must be responsible for the funding and construction of that mitigation. Such an arterial would not be State Route 125, although it might be called SA 1125 or some other designation.
- 20c. 3. Pages 5 and 67 specify reclassification of Sweetwater Road as a major arterial. Because the freeway agreement for State Route 54 does not call for an interchange at Sweetwater Road, local roads north of the freeway will ultimately have to distribute the traffic from Sweetwater Road.
- 20d. 4. Page 53 reports 19,700 ADT on SR 54 between I-805 east to Washington Street. That probably should be Washington Street, the continuation of Sweetwater Road. Using the 19,700 average in Figure 3-5 tends to conceal the higher volume near Interstate 805. Caltrans counts for 1980 show average daily traffic of 27,500 on Route 54, just east of Interstate 805.
- 20e. 5. The description of existing and planned Park and Ride sites on page 60 is accurate, but those facilities did not anticipate the Eastlake Planned Community and cannot adequately serve a project of its magnitude. As pointed out in our response to the Notice of Preparation

20a. Clarification noted the text of the EIR has been revised to incorporate this information.

20b. Funding of the road to be built to serve a similar function to Route 125 would be the developer's responsibility. It is acknowledged that this would not be State Route 125.

20c. Comment noted.

20d. The EIR text has been revised to read Worthington Street. The clarification regarding traffic volumes on Route 54 are noted and have been incorporated into the EIR.

20e. A Transportation Center, to include a Park and Ride facility, is proposed to be located in the central portion of the project site on one of the parcels designated for Community Facilities (see Figure 2-5 in EIR text).

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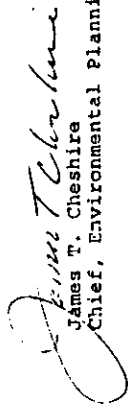
R-11918

Ann Barkley

-2-

November 23, 1981

at least one site should be included in the development plan.
An irrevocable grant of 100 spaces at the shopping center
would provide a logical interface with transit service.


James T. Cheshire
Chief, Environmental Planning Branch

A-11918

Memorandum

To : Ann Barkley, Chief
Division of Transportation Planning
Date: October 20, 1981
File: Clearinghouse
Attn: F. Darrell Husum

From : DEPARTMENT OF TRANSPORTATION
Division of Aeronautics

Subject: Project Review - SCH 80121007 - Eastlake Planned Community -
Up To 11,800 Dwelling Units, Commercial And Other Facilities
On A 3,073 Acre Site East Of Chula Vista

The Department of Transportation, Division of Aeronautics has reviewed the Environmental Impact Report (EIR) for this project.

On December 10, 1980 we responded to a Notice of Preparation of an EIR for this project and indicated our views as to the scope and content recommended for the EIR. On June 8, 1981 we reviewed an "Inventory of Resources and Hazards" for the project, and again commented.

The EIR introduces no new elements and is well written. It appears that the project site will not be influenced by any airport and the major noise source will be related to surface traffic.

Our only other comment is to recommend that any circulation network for the project site be coordinated with the City and County of San Diego and with District 11 of the California Department of Transportation. The EIR is adequate for our purposes.

MARK F. MISPAGEL, Chief
Division of Aeronautics

David Miller
David Miller
Environmental Planner

Attachment

21a No response is necessary.

RECEIVED 21 1981

State of California

Memorandum

To : State Clearinghouse
Dan

Date : November 19, 1981

Place : Sacramento

from : Department of Food and Agriculture

Subject: SCH. #80121007
3,073-Acre Eastlake Development

The California Department of Food and Agriculture has reviewed the above draft Environmental Impact Report and we have the following comments.

This 3,073-acre development conflicts with both the County of San Diego Regional Growth Management Plan (RGMP) and the Chula Vista General Plan, in which the designated land-use is Agriculture and Reserve.

We note that such changes in the land-use designation in the General Plan as proposed will result in the loss of 2,820 acres of prime soils. This conversion is a significant impact in terms of the loss of potential production of coastal-dependent crops.

Moreover, this project constitutes "leapfrog" development which CDFA opposes. The Majority of the Eastlake acreage is located in relative isolation from other urban development and provision of sewer services across off-site areas to reach the project site will have significant growth-inducing effects on adjacent agricultural land.

Therefore, CDFA recommends the "No Project" alternative discussed on page 181 in which the existing land-use designations for the Jamul Ranch will be retained.

21b

21b.

The comments emphasize impacts which were addressed in the EIR text. These comments are noted, as is the recommendation for implementing the "No Project" alternative.



Harry J. Krade
Assistant Director
Special Assignments
(916) 445-0682

SUBNAME
50-104

Memorandum

To : Jim Burns
Assistant to the Secretary
Resources Agency

From : Doug Reid
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010
Department of Conservation—Office of the Director

Date : December 4, 1981

Subject: EastLake Draft
Master Environmental
Impact Report, City of
Chula Vista
SCH 80121007

The Department of Conservation has reviewed the EastLake Draft Master Environmental Impact Report, which proposes development of a 3,073 acre planned community on dry farmed agricultural land. The project is in Otay Mesa, in Southern San Diego County. Development of the EastLake community would require annexation to the City of Chula Vista to the west, amendments to the Chula Vista General Plan, and rezoning to Planned Community from the present agricultural designation. Surrounding areas are primarily comprised of agricultural and grazing lands and natural terrain. In response to the EastLake proposal, we offer the following comments.

The Department, as administrator of the California Land Conservation Act (the Williamson Act), is concerned about the loss of productive and potentially productive prime land which would result from development of the proposed EastLake project. Statewide, California loses approximately 50,000 acres of prime agricultural land to urban development annually. An additional 100,000 acres of other important farmlands are irreversibly committed to urban uses each year. Accordingly, we believe that every proposal for conversion of agricultural land requires serious consideration.

Our comments fall into four categories: 1. Analysis of Agricultural Potential, 2. LAFCD Review, 3. Growth-inducing Impacts, 4. Planning Decisions Pending.

1. Analysis of Agricultural Potential

The City of Chula Vista's policies encourage the preservation of productive agricultural land. Although these policies emphasize current productivity, they also allow for protection of potentially productive land. Chula Vista's General Plan designates land in the proposed EastLake area as "Agriculture and Reserve" (pp. 30, 31); the Plan leaves open the option of urban development without incorporating development as a foregone conclusion. If the agricultural potential of such land is found to be significant, the city's policies provide for leaving it in agriculture permanently (see the study proposed in the City's Open Space Element, p. 31; and our further comment below, p. 4 of this letter). It appears the agricultural potential of the Eastlake site is significant since, with adequate water, the soil and climate can support coastal dependent crops year-round (p. 45).

11918

22a

In light of the significant agricultural potential of the EastLake site, we feel a rigorous economic analysis is needed to answer the following questions:

- o What is the cost per acre to provide irrigation water to the project site? The EIR notes that the cost of water for agriculture would about equal the cost of water for development at a density of 5-6 dwelling units (du)/acre, the average density of the proposed project (p. 50).
- o What offsetting financial benefits would be realized with production of off-season coastal dependent crops? What are the potential economic benefits of growing such crops as tomatoes or flowers versus residential and commercial development?
- o What future water options are available, and what would be the projected attainment costs for each option?
- o What is the potential importance to the regional economy of various land use options, including dry farming, irrigated intensive agriculture, and urban development.

The long term need to preserve the agricultural potential of the EastLake area must also be recognized. San Diego County has 62,000 remaining acres of Class I, II, III and IV lands in coastal and near coastal areas. Many of these are also threatened by urbanization. Development of the EastLake area eliminates yet another option for producing coastal dependent crops in the future.

2. LAFCO Review

Under California's Knox-Nisbet Act (1963), the San Diego County Local Agency Formation Commission (LAFCO) must review and approve the annexation proposed as part of the EastLake project. Because of this approval authority, the LAFCO is a responsible agency under the California Environmental Quality Act (CEQA) and must be consulted in the preparation of a Draft EIR. The EIR only discusses the LAFCO review with respect to established review criteria relating to agricultural lands and "leapfrog" developments (pp. 47, 51). It would be helpful to have some indication of the LAFCO's concerns, if any, with the EastLake proposal.

The San Diego County LAFCO has not yet adopted a sphere of influence for the City of Chula Vista (pp. 1, 14). A sphere of influence, required by California Government Code, Sec. 54774, is one of eight factors a LAFCO must consider when acting on an annexation proposal (see Calif. Govt. Code, Sec. 54796). The deadline for adopting spheres of influence has long since passed, as the

22b

22a.

As stated on page 45 of the EIR, the kind of comparative economic analysis requested by the Department of Conservation has not been conducted. The loss of agricultural resources was cited as a significant impact; however, determination of the economic feasibility of retaining agricultural land would require supplemental studies beyond the scope of this EIR. The applicant has prepared an estimate of the capital and water costs associated with providing water to the project site for one type of irrigation system in comments on the EIR. Other systems may also be feasible, but their cost effectiveness would require a comparison of capital costs with water rates. The relative costs of these two variables may fluctuate in the future. In addition, the future value of agricultural products which might be produced onsite would affect the economic feasibility of such uses. The detail of analysis required for project alternatives is substantially less than that required for the project evaluated in the EIR.

22b.

LAFCO has indicated that the EIR is adequate for their purposes (please see comment 17).

R-#8
11918

California Attorney General held in 60 Ops. Cal. Atty. Gen., 119 (1977). Therefore, annexations to a city for which the LAFCO has not adopted a sphere of influence are vulnerable to legal challenge. A case in point is Resources Defense Fund v. Santa Cruz LAFCO; this litigation involves similar annexation issues. Because of the legal issue, the City of Chula Vista should consider awaiting adoption of a sphere of influence before considering annexation of the Eastlake project area.

3. Growth-inducing impacts

The Draft EIR notes that the proposed Eastlake project, if constructed, would result in significant growth-inducing impacts. These could have far reaching effects on agricultural production in Otay Mesa, which contains 12 percent of San Diego's productive acreage. Of primary concern is the premature urban development of productive and potentially productive lands, a scenario that conflicts with existing city and county growth management plans (p. 180). To reflect the intent of the local plans, the EIR must include more detailed discussion of several important growth-related aspects of the proposed project, including the need for housing and industry in the Eastlake area and the extension or improvement by urban services to a semi-rural location.

- o Housing Demand and Supply. The EIR suggests that the need for additional housing in the proposed Eastlake area counterbalances the development priorities enumerated in California's Urban Strategy (p. 32), priorities which discourage premature conversion of farmlands to urban uses. The EIR does not, however, present facts to demonstrate an overriding housing need. It leaves unanswered key questions, such as: a) What are the projected costs of the proposed housing units? b) Would the Eastlake proposal provide sufficient housing types and price ranges to accommodate low and moderate income levels? c) Would the Eastlake development provide needed housing opportunities that are unavailable elsewhere within or contiguous to urban boundaries? We feel these questions require answers before an informed decision can be made on the Eastlake proposal.

- o Employment Opportunities. The EIR states that 22 percent of the ultimate population of Eastlake would be able to find employment in the Eastlake community (p. 36). The 22 percent figure should be supported by discussion of the specific employment opportunities anticipated. Also, the EIR notes that the county-wide employment average is 38 percent of the total population (p. 36). If these two figures, 22 percent and 38 percent, are correct, there is potentially a workforce surplus of 16 percent of Eastlake's

22c.

An overriding need for additional housing in the proposed location at this time, in a manner which is growth inducing and in conflict with the Urban Strategy has not yet been demonstrated. The Eastlake proposal does contain a provision for developing 10 percent of the 11,800 dwelling units to be affordable for low and moderate income housing.

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ultimate population. In light of this potential surplus, the ability of nearby communities to absorb more employees should be analyzed carefully; if they will be unable to provide adequate employment opportunities for EastLake residents, there will be new pressures for commercial and industrial development in Otay Mesa. The EIR does suggest that future development beyond the bounds of the EastLake proposal may be desirable to increase the number of close-in jobs (p. 36). The EastLake project, although a "planned community," is not self-sufficient. Not only would it rely on Chula Vista's urban support services, it would be dependent on future development to improve its employment situation.

22d

22d. The EIR states that EastLake would not be a totally self-contained community. It is acknowledged that there will not be sufficient jobs for all residents of EastLake.

o Support Services. The EastLake EIR discusses the range of urban support services the proposed development would require: sewer, water, schools, police, fire (pp. 68, 77, 81, 85, 87). In all cases, the project anticipates drawing on existing service facilities which now supply the City of Chula Vista. These expansions would be to a currently undeveloped and relatively isolated area, thereby providing inducement for further growth.

22e

22e. Comment noted. The growth inducing effects of service extensions are discussed on page 178 of the EIR.

o Transportation Corridors. The EIR discusses transportation impacts of the proposed development in terms of increased traffic flow only (p. 67). The EIR should address the negative impacts on agricultural land of the road building and the road-widening proposed as part of the EastLake project.

22f

22f. The adverse impacts of roadway improvements on agricultural land are acknowledged, and the EIR text has been revised to address them (pages 50, 52 and 180).

4. Planning Decisions Pending

The Draft EIR refers to a number of planning decisions or studies in progress. The most significant is a study, referred to in Chula Vista's Open Space Element, "to determine locations of subareas (in the Agriculture and Reserve area) which should be afforded more permanent protection." (p. 31). We understand that the city has contracted for this study and that the results will be used to guide future urban growth. We hope that the City will abide by its original intentions, and commitment to the General Plan, and complete this study before making any decisions on the EastLake proposal.

In addition to the study of agricultural "subareas," the EIR mentions three other relevant planning studies which have not yet been completed: A community plan for Otay Mesa, being prepared by the City of San Diego (p. 33); the Bonita Long Canyon Specific Planning Area. In its tentative first phase (p. 177); and the Chula Vista Planning Department's Greenbelt Plan, in its formative stages (p. 184). These plans could guide the City of Chula Vista in its consideration of the EastLake proposal, and other major land use decisions as well.

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Doug Reid
Page 5
December 4, 1981

The EastLake Draft EIR provides a comprehensive analysis of the proposed development. In the above comments, we have attempted to identify the issues raised which directly affect productive agricultural lands in Otay Mesa. These issues are serious enough to call for further study and very careful evaluation.

We hope that our comments are helpful to the City as it reviews the EastLake EIR. We would appreciate receiving a copy of the Final EIR when it becomes available and would also like to receive copies of all decisions the City makes with regard to the EastLake proposal.



Esther Maser
Environmental Program Coordinator

cc: State Clearinghouse
Office of Planning and Research
San Diego County LAFCO

12-11-918

DEPARTMENT OF CONSERVATION

DIVISION OF MINES AND GEOLOGY
DIVISION OF OIL AND GAS

EDMUND G. BROWN JR., Governor



SACRAMENTO, CA 95814
1416 North Street

(916) 322-1080

December 14, 1981

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

Dear Mr. Reid:

EastLake Master Draft Environmental Impact Report, SCH #80121007

Thank you for hosting our meeting on December 7, 1981, to discuss our comments to the Draft EIR and the environmental issues surrounding the proposed EastLake project. From the discussions at that meeting, it is apparent that approval of the EastLake community development will significantly and adversely affect agricultural production, both current and potential, in the Otay Mesa region.

In our review of the EastLake Draft EIR, we noted four significant issues which we believe merit further attention. These include the following: (a) the resultant decline in farmland due to urbanization of prime and other soils in Otay Mesa; (b) the failure of the San Diego County LAPCO to adopt a sphere of influence for the City of Chula Vista, possibly invalidating the annexation proposal; (c) possible growth inducement which could result from the extension and enhancement of utilities and urban services to be provided to the EastLake area by the City of Chula Vista; and (d) the status of several planning studies not yet completed but now under way which should guide the City when considering the EastLake community proposal.

We also requested in our comments to the Draft EIR that additional information concerning the EastLake proposal be made available prior to project approval. I understand that your staff is responding to this request.

Because of our discussions at the December 7 meeting, we also believe that the alternatives analysis should be expanded to

23a

23a. These concerns were addressed in the previous comments and responses (22a-f).

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Mr. Doug Reid
Page 2
December 14, 1981

23b give more serious consideration to alternative development options. The alternatives presented in the Draft EIR which we believe merit further analysis include those of continued agricultural use and of reduced development with greater open space. Preserving the land for agricultural and grazing uses is, of course, our desired option and deserves serious consideration. However, if the EastLake project is to be approved, then the proposal should be revised to include adequate open space buffers wherever development would be decreased to accommodate the density of the project should be decreased to accommodate the open space and reduce overall project impacts in what is essentially a farm and grazing land region. We request that these alternative development options be expanded upon and discussed in the Final EIR.

In summary, the EastLake project will have serious effects on agricultural production in Otay Mesa. If approved, the development should be modified to mitigate to the greatest degree possible these adverse effects.

Thank you for the opportunity to expand upon our comments to the Draft EIR. We request that you read this letter into the public record at the December 16, 1981 hearing concerning the project.

Sincerely,

Esther Maser

Esther Maser
Environmental Review Coordinator

cc: Ann Nussbaum
WESTEC Services

23b. The EIR has been revised to incorporate these suggestions.



DEPARTMENT OF CONSERVATION

DIVISION OF MINES AND GEOLOGY
DIVISION OF OIL AND GAS

SACRAMENTO, CA 95814
1414 Mark Street
(916) 322-5873

DEC 22 1981

December 22, 1981

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

DEC 20 1981

Dear Mr. Reid:

Subject: EastLake Planned Community Development (DMEIR, SCH80121007)

The Department of Conservation has received a package of information related to the proposed EastLake Planned Community development from the office of Craig Beam of Cadillac Fairview Homes West. The package includes a three-page discussion of "Agricultural Resources," and the EastLake Planned Community Development White Papers, Vols. I and II. It is intended to respond to the issues raised in our comment letter (12/4/81) on the EastLake Draft Environmental Impact Report (EIR).

The Department is aware of the upcoming decision by the City of Chula Vista on the EastLake proposal, and we believe that the new information forwarded by Cadillac Fairview does not adequately address the issues we raised in our comment letter. We feel the City of Chula Vista requires better information before it can reach a sound decision on the proposed EastLake development.

In brief, specific questions raised in our comment letter which still need to be answered include:

- What is the agricultural potential of the proposed development site? Are the current dry-farming barley operations being managed to encourage a reasonable economic return?
- The new "Agricultural Resources" discussion estimates a cost of \$6,298,700 for the water system which would be required for tomato production on the proposed development site. How does this cost compare to the projected cost of a water system for the proposed EastLake development? How does each cost compare with the potential benefits to be realized from continued agriculture and urban development, respectively?

24. This letter provides additional clarification regarding comment letters 22 and 23. The comments are noted, however, no further response is necessary.

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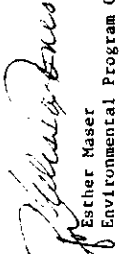
Mr. Doug Reid
Page 2
December 22, 1981

- * What is the specific projected cost of the EastLake development, item by item: housing, urban services, transportation?
- o Is the EastLake proposal appropriate in the context of existing city and county plans and of planning decisions pending, including a sphere of influence for Chula Vista, an Otay Mesa Community plan, the Bonita Long Canyon Specific Planning Area, and the City Planning Department's Greenbelt Plan?

As I noted in my letter of December 14, 1981, we also feel that an expanded "alternative development options" analysis is in order.

We appreciate the continuing opportunity to review information relating to the EastLake proposal. Please keep us informed about critical decisions concerning this proposed development. Thank you.

Sincerely,



Esther Maser
Environmental Program Coordinator

cc: Craig Beam,
Cadillac Fairview Homes West
Ann Nussbaum,
WESTEC Services

8-11918



Department of Planning & Land Use

County of San Diego
INTER-DEPARTMENTAL CORRESPONDENCE

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

SUBJECT: CEQA Review of Eastlake Planned Community

Dear Mr. Reid:

Thank-you for the opportunity to comment on the adequacy of the draft EIR on the Eastlake project; these comments only address the EIR sufficiency and do not reflect a County position on the project itself. Please refer again to the County Planning Department letter of January 19, 1981 (attached); we do not believe all these comments were adequately addressed in the draft EIR.

Degree of Specificity- We understand that it is difficult to discuss complex impacts and mitigation measures for a project the size and scope of the Eastlake proposal, however, certain of the mitigating measures proposed to reduce Eastlake's significant impacts would have environmental impacts themselves: More precise discussion of recommended mitigating measures should be supplied so that decision makers can assess the full consequences of any mitigating measures applied. The EIR reader would greatly benefit from a clearer enumeration of recommended mitigating measures and precisely in which stages of project approval or implementation these measures would be applied.

Agricultural Resources- The draft EIR adequately discusses impacts to important onsite coastal dependent agricultural resources and states that the impacts would be significant and not mitigable. However, the discussion of various alternatives, including those which would reduce impacts to an insignificant level, are incompletely discussed to give decision makers clear direction. We suggest you add an additional alternative which could reduce potentially significant impacts to regional agricultural resources: to plan and implement parts of the Eastlake and adjacent suitable land for permanent agricultural uses. Some density compensation could be made available to affected land owners. Treated waste water from projects such as Eastlake, if approved, could be used as irrigation sources for area agriculture. None of the alternatives in the draft EIR are discussed thoroughly enough for a decision maker to make an informed alternate project choice and fully understand impacts of such alternatives; the discussion of alternatives should be greatly expanded to make them useful. This is especially true of paragraph 5.5 (p 185) where it hints at the agriculturally viable alternative discussed here.

25a. This is a master EIR; mitigation measures to be implemented at this stage of project review will be included in the CEQA findings. Each phase of the development and specific mitigation measures will be subject to subsequent environmental review as they are implemented and further findings made.

25b. The alternatives section of the EIR has been revised to incorporate these concerns.

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25c Traffic and Circulation Impacts- A generally good analysis of potential future traffic impacts was presented. However, the intersection analysis does not take into account the turning movements onto I-805. Because of the heavy traffic projections for Bonita Road, Telegraph Canyon Road, East of H Street and Orange Avenue, the turning movements onto I-805 ramps should be identified and sufficient mitigation proposed. Since 16-18 percent of the traffic in the area will be produced or attracted by the Eastlake project, the analysis is incomplete without their information.

25c. An addendum to the original traffic study was prepared to address project impacts on I-805 interchanges. This addendum is included in the technical appendices and summarized in the traffic section of the EIR text.

25d It is difficult to understand if the traffic analysis accounted for potentially accelerated development in the Jamul area, some of which would use Protor Valley Road for westerly access.

25d. The assumptions used in the traffic analysis were based on existing, planned land use information for the traffic study area which could be reasonably projected.

25e Hydrologic Impacts- Potential impacts from increased runoff from the project through unincorporated Bonita are of great concern to residents of Bonita. Unfortunately, the draft EIR uses drainage studies which assume the project area would be used for open space/ agricultural purposes (apparently Zone 3 and 4 studies, and the "Fogg" (1964) study). Although the report notes this discrepancy, it does not indicate that Table 3-8 reflects this inaccuracy.

25e. Table 3-8 includes this information. As a condition of site development, runoff quantities beyond existing levels will not be permitted.

25f In addition, Section 3.17.2 states that increases in run-off would not be accompanied by increased sediment loads; while this may be true at the end of the 20 year development stages, in the interim, until all controls are in place, sediment loads will increase downstream.

25f. If no interim mitigation measures are implemented, sediment loads would be expected to increase downstream. This clarification is noted.

25g Cumulative Impacts (State EIR Guidelines, Section 15143(a))- The draft EIR does not adequately describe the cumulative impacts of the proposed project and others approved or currently being proposed. It is likely that land south of the project will be proposed for increased residential and/or commercial uses and will contribute to a number of the environmental effects of the project. The attached map shows the locations of a number of additional projects in the east Chula Vista-Jamul corridor which could cumulatively impact such resources as sewers, water availability, traffic, air quality, and other public services. Some of these projects have proposed residential densities in excess of that shown in the adopted San Diego General Plan and therefore are not consistent with some of the Eastlake EIR assumptions.

25g. The EIR has been revised to include a central discussion of cumulative impacts.

25h Non-significant Effects- Section 15143.5 of the State CEQA guidelines require that: "An EIR shall contain a statement briefly indicating the reasons that various possibly significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR". This section is not included in the Eastlake draft EIR, Table 1-1 is insufficient to fulfill this requirement.

25h. Section 15143.5 requires a statement regarding non-significant effects only if potentially significant effects of a project are not to be discussed in the EIR. Because this report is a full EIR, which addressed all project-related environmental issues, such a statement is not appropriate or required.

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Relation between short term use and long term productivity- The draft EIR (refer to page 191) does not contain a key discussion required by the CEQA Guidelines: "In addition, the reasons why the proposed project is believed by the sponsor to be justified now, rather than reserving an option for further alternatives, should be explained." This is a key discussion for this particular project and is paramount for the decision makers and citizens considering the merits of the project.

25i

This discussion is included in the revised EIR text.

Michael U. Evans

MICHAEL U. EVANS
EIR Coordinator

cc: Greg Smith
Ann Hix, LAFCO

Enclosures

ME:sv

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Department of Planning & Land Use

County of San Diego
County Administration Center
1600 Pacific Highway, Room 207
San Diego, California 92101
Telephone: (714) 236-4597
Paul C. Zucker
Director

January 19, 1981

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

Subject: Eastlake Planned Community Environmental Impact Report

Dear Mr. Reid:

Thank you for providing my staff with source material regarding the proposed development of the Janal Ranch as the Eastlake Planned Community. The following represents our comments regarding those topical areas which we believe to be most important and deserving of analysis, review, and discussion within the Draft Environmental Impact Report. We understand that the EIR will become available for public review in late March or early April; please advise us of any modifications to this schedule and provide us with review copies of the report(s).

For clarification, we have organized our comments into four topical areas. These are: Land Use, Growth Management, Transportation, and Environmental Concerns; there is obviously some overlap within these broad areas.

LAND USE

What are the relationships which presently, and due to this development are anticipated to, exist between the Land Use Plans adopted by the City of Chula Vista, the City of San Diego, and the County?

The City of San Diego is scheduled (2/26/81) to consider adoption of the Otay Mesa Community Plan; a future population of some 44,000 persons is anticipated. What are the relationships between the Otay Mesa and the Eastlake plans?

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Attention should be focused towards such matters as: demand for public services and how these two plans may compete for such services; the net impact of the loss of both of these areas to agricultural productivity; and an assessment of those modifications to the existing Land Use plans which should or could be made within the Jamul and Sweetwater community plan areas if the Eastlake project is implemented.

GROWTH MANAGEMENT

The County's Growth Management program directs urban development to areas within or adjacent to existing urban-level development and to areas with existing public services. As such, that area proposed for the Eastlake development is not identified as a candidate area for urban development. In light of the apparent discrepancy with this adopted policy of the Board of Supervisors, the following issues should be discussed:

- Eastlake's impact upon surrounding areas and the growth inducing effect of creating a "new town" within a rural, agricultural area.
- Eastlake is not adjacent to existing urban-level development. Is this a logical extension of development?
- Will extending full urban-level public services to the Eastlake project over extend the capability of any public utilities? Will it prevent the provision of such services to other areas adjacent to, or within, existing areas of urban development?
- Will the extension of public utilities to the Eastlake site be more expensive than providing such services to areas closer, or within, existing urban areas? In the long run, this circumstance could be reflected in increases in costs to the general public and/or may delay or prevent the development of such areas to their full potential.
- Because of the two questions immediately above, housing prices could be increased above already projected levels thereby decreasing the possibility of providing affordable housing not only within the Eastlake development but within the region.
- By policy, the County encourages urban areas to either annex to a city or incorporate. The Janal Ranch and surrounding areas are not currently urban in nature but are rather agricultural areas. The Eastlake site, therefore, is in conflict with both the Growth Management and Annexation Policies of the County.

TRANSPORTATION

A complete traffic analysis should be included within the EIR. The network for analysis should include the SANDAG/CALTRANS model focused to include

12-11-1981

Mr. Douglas D. Reid
January 19, 1981
Page Three

that area between the U.S./Mexican border (because of the Otay Mesa and Second Border Crossing projects), State Route 54, Interstate 5, and generally the Jamul area. In addition to this traffic study, the following questions should be answered:

- Will implementation of the Eastlake project require modifications (amendment) to the County Circulation Element, and possibly, the circulation network within the City of San Diego? An analysis should be made of the regional consequences of such changes including the region's ability to implement (fund) such a concept.
- The preliminary Circulation concept proposed by the Eastlake proponent includes the extension of Proctor Valley Road to the south, (the old Route 125 alignment), as a Major Road with 146 feet of right-of-way. However, the off-site alignment of this road is not indicated. There are three specific questions in this regard:
 1. This route continues to be shown as a Freeway on the County Circulation Element. What would be the regional consequences of opening up this vast area to urban-level highway access, even as a 4-lane road?
 2. The northern end of Proctor Valley Road currently has a prohibition against construction until the year 1995 because of the lack of a bridge across the Sweetwater River intersecting with Route 54. Does the Eastlake project anticipate the construction of this necessary bridge? If so, what are the funding implications? Will the bridge be funded and constructed as a part of the Eastlake project? If not, how can the highway network function?
 3. Because of the regional significance of this route, is it anticipated that the California Transportation Commission will be petitioned to readopt the Route 125 alignment? If so, and CTC approval is obtained, what is the likelihood of obtaining construction funding?

ENVIRONMENTAL CONCERNS

What measures are proposed to prevent contamination of Otay Lakes?

The extension of public services and utilities to the Eastlake project site will have environmental impacts. These impacts, including both social and economic factors, should be thoroughly analyzed and discussed and potential mitigation measures proposed.

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Mr. Douglas D. Reid
January 19, 1981
Page Four

The approval and development of the Eastlake community will result in a rise in the land value of adjacent and similar properties. Because of this, these properties may see increasing urbanization pressures. An assessment should be made regarding such growth inducement and urbanization pressures and should include the long-term viability of agricultural production, its effect upon the region and state, the ability of this region to absorb this amount of urban development, and the social effects and impacts to be expected from such an occurrence.

Because of the location of the Eastlake site, and the travel demands of a community of over 30,000, the matter of the region's air quality strategy should be thoroughly considered.

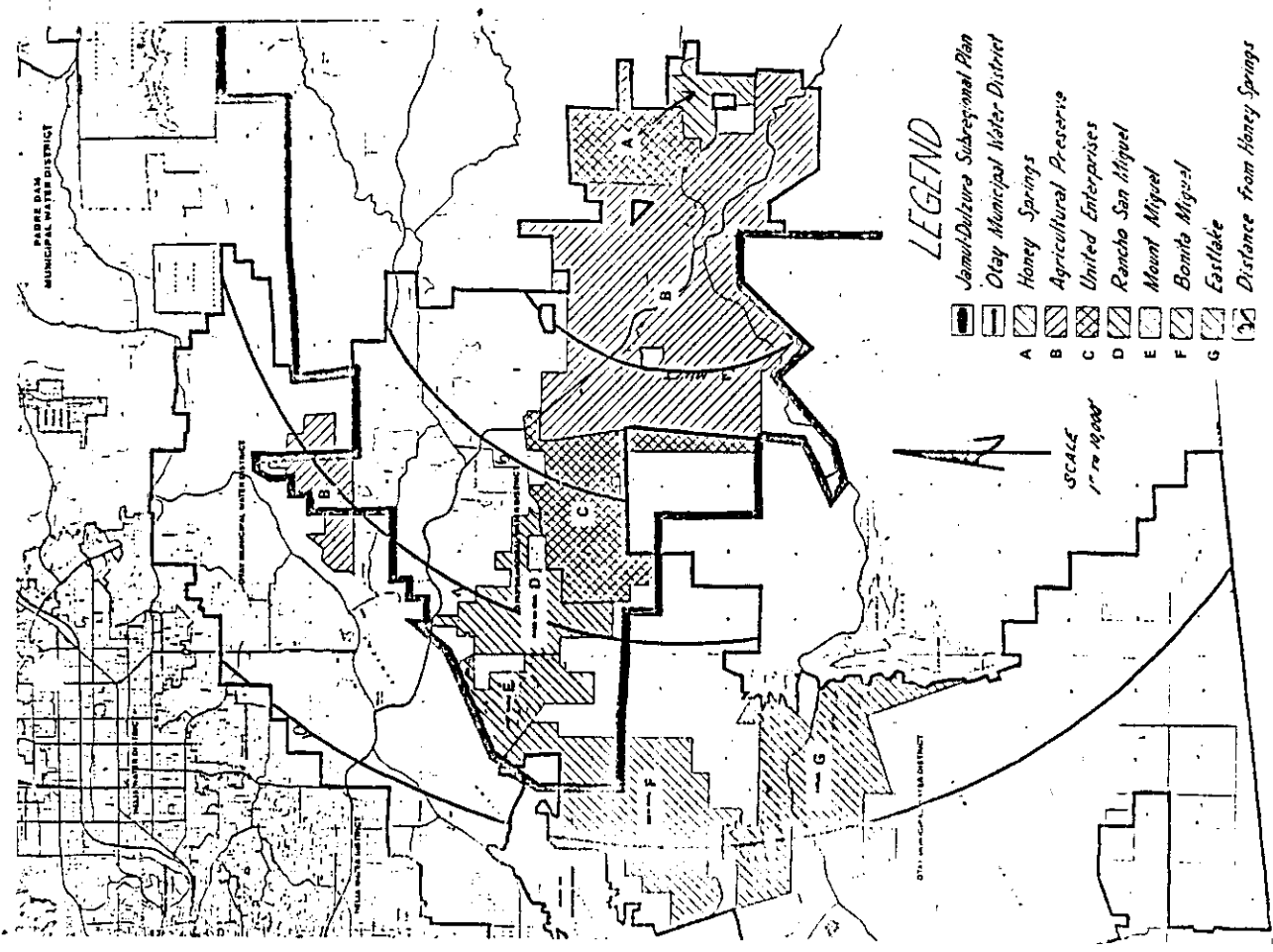
Dianne Guzman

DIANNE GUZHAN
Assistant Director
Department of Planning and Land Use

DG:BC:lrw

cc: Greg Smith
Ann Brickelmaier Hix, LAFCO
Agriculture Commissioner, c/o Tom Escher

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Coleman:

Mr. Chairman and members of the Planning Commission, my name is Coleman, I live on Gotham Street in Chula Vista. I'm concerned with what I consider to be the inadequate addressal of water problems in the E.I.R. for the Eastlake project. The agencies within the San Diego County Water Authority normally use approximately 520,000 acre feet of water a year. Normally, and I stress normally because we do have still storage of runoff water from a couple of wet years, but normally, 90 per cent of that, or roughly 470,000 acre feet of water are imported. That represents about 22 per cent of all water imported in Southern California by the Metropolitan Water District of Southern California. The E.I.R., page 77, states that completion of the Central Arizona project in 1985 will result in a 15 per cent reduction in San Diego County Water Authority import, or approximately 70,000 acre feet.

Since M.M.D. will lose about 30 per cent of all of its imported water when the C.A.P. is completed, I question the reduction of only 15 per cent to the San Diego County Water Authority, especially since all agencies under C.W.A. use about 22 per cent of M.M.D.'s water when we're only entitled to about 9 per cent, not the 22 per cent we actually take.

Page 78 of the E.I.R. says a peripheral canal will be completed in 1990. The best engineering estimates are that it will be completed ten years after the first shovel full of dirt is concerned. Assuming the voters approve it in June 1982, it's unlikely to assume that construction will start much before mid-1983. Once it starts, we're talking about a project that is more than 40 miles long, 400 feet wide and over 40 feet deep.

There are other factors that need to be considered. We're talking about water outside of our own region. One, the problem in Mono Lake. The Los Angeles Department of Water and Power right now is under fire for withdrawal of water from Mono Lake over the past 30 years which has reduced the level of the lake causing two islands, or one of them at this point, to be joined to the mainland by peninsula, destroying one of the largest gull rookeries on the west coast of the United States. Court suits will, no doubt, be threatened at this point and as far as I know have not yet been filed, but no doubt will be filed, and should the people attempting to stop the diversion of water win the suit, Los Angeles will lose 17 per cent of their water. The City of Los Angeles right now is under injunction to reduce ground water withdrawal in the Owens Valley. The Inyo County Board of Supervisors went to court and got the injunction on the grounds that withdrawal of that ground water is actually impacting the environment of the Owens Valley and turning what was a semi-desert into a pure desert. If that injunction is made permanent, it probably will result in somewhere in the neighborhood of another 5 to 6 per cent loss in water. This is to indicate that the City of Los Angeles at this point stands to lose more than 20 per cent of the water it currently imports. The significance there is that the City of Los Angeles is entitled to 54 per cent of all water the Metropolitan Water District of Southern California imports. That's based on assessed valuation and I've heard statements made that that will not be enforced. Let's say it never has been enforced, but there has never been a need to enforce it because there's never been a water shortage which would necessitate enforcing the assessed valuation system.

The City of Los Angeles, under normal conditions, takes about 8 per cent of the water to which it's entitled from the Metropolitan Water District of Southern California. If the City is forced to reduce its receipt of water from the Owens Valley they have prior claim because they've been paying taxes--

26. Comments received at the Planning Commission meeting of 12/16/81 are noted.

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Coleman

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the people of Los Angeles have been paying taxes--on the Colorado River Project since 1930. The most water they've ever taken from the project was 25 per cent of their entitlement. I think it stands to reason that they will be able to reach out and get more.

Closer to home, the Otay Municipal Water District has provided the developer with a well served letter, which, as far as I'm concerned, is not worth the paper it's printed on because Otay Municipal Water District does not own any water. The District has a few tanks sitting out on the Otay Ranch that at the maximum will provide something in the neighborhood of 60 hours of water under an emergency condition. Otay Municipal water comes directly from the end of the pipelines coming into the county, and if there's a reduction in the flow in those pipelines, Otay is one of the districts that's going to be very severely hit.

Otay is one of the districts in San Diego County that has historically exceeded its entitlement; that is, water delivered exceeds the amount to which the district is entitled.

The figures provided by Eastlake in the E.I.R. show that at the ultimate build-out a 75 per cent increase over current water deliveries will result within the Otay Municipal Water District.

The 1980 census shows that San Diego County is one of the five fastest growing counties in the United States. Throughout the entire decade of the 1970's, there were 50,000 people a year added to the population--that's one National City, per year. That's with all of the social problems attendant and all of the demands on resources. I think it's logical to assume at the rate we're going, that growth will continue through the decade of the 80's. The City of San Diego can rationalize its share because the City of San Diego owns most of the water storage in the county. We're dealing with a water district that doesn't own any.

The E.I.R., under mitigation, says, well, so what, another 30,000 people won't hurt. I take exception because I'm a resident of the Otay Municipal Water District, and a project that will add 30,000 people to an already water-poor area, I feel, threatens my existence. Thank you.

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McCoy:

Michael McCoy, I'm with the California affiliate of the National Wildlife Federation and we're severely concerned about the agricultural implications of the Eastlake development. Our organization holds about four million members nationwide and in a recent survey we found the membership, in a poll, considered the loss of agricultural land to be the No. 1 issue in the nation.

During the 1970's crop land harvested increased more than 60 million acres due to the dramatic rise in the demand for U. S. agricultural exports. The demand is expected to grow still larger in the next 20 years and as it does pressures on agricultural land will increase. By the year 2000 most of the nation's 540 million acre crop land base will be in cultivation. From this perspective it can be seen that nonagricultural demands upon agricultural land is a matter of national concern. The United States has been converting agricultural land to nonagricultural use at a rate of about 3 million acres a year; it is paved, built on, etc. That's about 12 square miles a day. The loss of this resource is irreversible. Up until the last few years the conversion of agricultural land caused little concern, however, rapid international and national changes involving food, energy, inflation, economic instability, have created uncertainties about the management of the nation's resources. The public is concerned and uncertain about the capability of the United States agricultural land base to supply food and fiber at the high level that will be demanded in the next 20 to 30 years. This uncertainty has prompted a debate over the continued conversion of agricultural land by the U. S. Department of Interior, Agriculture, Commerce, etc., and other agencies within those departments, culminating in a national agricultural land study, which is complete.

At a more local level, since 1947 4-1/2 million acres of agricultural land has been converted in California to nonagricultural uses. The '72 survey, the study showed the State losing agricultural land at the rate of 134,000 acres annually. At this rate over three-quarters of California's agricultural land will be gone in 30 years. Considering California provides 40 per cent of the nation's food, this is something to note in the back of your mind. The effects of agricultural land conversion have been felt locally. In communities experiencing rapid growth there is increased concern by citizens as they see the loss of open space, increased cost of services, schools, roads, etc. Most of the land concerned in the Eastlake project consists of Class B soil which is prime under the Williamson Act definition. And prime land of a hillside type, rated suitable for farming under the Soil Conservation Service rating of suitability. It's also designated to be statewide, local and unique, important farm land under the farm land map of the nation now in process of publication. There are approximately 60,000 acres of this type of agricultural land left along the coastal strip of Southern California. About 10,000 of these acres are under cultivation in San Diego County, approximately 5,000 in the north county and the rest in the south. Orange County has approximately 5,000. Los Angeles County has lost all of its agricultural land, and by the time one reaches Ventura County the climatic change and the growing season is no longer year around. If we are to continue to provide crops for the nation and the world we have to plan for the future. Presently, housing appears to be more important than food. Once the land is paved over, it's gone. Obviously, people must have somewhere to live and with the burgeoning population we face a serious problem of food supply vis-a-vis shelter; therefore, as a responsible Commission you must hit the issue of cluster development, green-belts, and higher density cities as seen in many European countries where agricultural land is limited. We must learn how to contain our urban sprawl and decide on finite limits of our cities. I encourage you in your planning

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to consider future generations and the more immediate problem of food for the world. Because of this loss, in the case of agricultural resources and other resources that have been identified in the E.I.R., it's a problem that faces us all. I think the City of Chula Vista has an opportunity that could be taken advantage of here, that was taken advantage by a community or county back east when the energy crisis hit. I think the same thing could be done in planning for local growth. They explored an acceptable alternative to the traditional leapfrog type development, which I think you can do here. You can anticipate the social problems, the economic and environmental problems, and expand the environmental impact review to have in the report, and this will provide an exposure for new progressive planning techniques and it will also allow you to use the expertise of an energy of citizens to plan for the development of the resource to carry out the plan. If you set up a forum to guide the program and the participants in establishing a comprehensive development which can be refined to set policy by considering the consequences of such development, to set the citizens committee up, it's possible to select 15 to 20 volunteers and put four or five members in each of the following categories:

Category 1, environment, agriculture, natural resources;
Category 2, industry, commerce, finance and labor;
Category 3, disadvantaged, educational, legal, religious and medical;
Category 4, building community, transportation, land use and housing.

These people basically in these categories agree with one another in their insight and their knowledge in these particular areas, their subject matter, so they can come up with a solution in their particular area. When they finish the task evaluation, the plan from their point of view, they select one member to be their representative to the final task. And the final task is to integrate the categories in a fashion acceptable to the membership at large. This then goes to the political bodies for evaluation, then back to the citizens group for acceptance, then to the governmental body again for a final smoothing and passage as a final package. It worked quite well in a severe energy crisis; it was used as sort of a model for planning, energy planning, and I think with the Otay Mesa, the land development coming up, the Eastlake land development, it could be combined and citizens in this local area can be given the expertise and the insight, the knowledge and so on is available through nonvested interest groups, the U. S. Department of Agriculture, Interior, Commerce, etc., the County and State agencies. I think the information is there, it's just putting it together into a progressive plan.

Thanks a lot for your time.

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Challberg:

Roger W. Challberg, 1444 Eagle Peak Court, I'm a resident of Chula Vista and taxpayer. I'd like to speak on four areas of the environmental impact report; I refuse to use initials, I think this whole society has gone through too much of a conspiracy, that most of us don't know what we're talking about after a while.

I'd like to address four areas: traffic, schools, impact on the taxpayers, and agriculture, not necessarily in that order. Before I start, and I speak for myself and I may speak for my wife, after 31 years I'm darned careful about who I speak for particularly when I'm talking about her, that's 31 years of marriage. I want to give you a little bit of my background so you know where I'm coming from. I have over 30 years in public education, over two-thirds of that as an administrator and administrator related duties in one of the largest urban districts in the United States. I'm not here speaking for the district, I'm speaking for myself. But, over the years, in those 30 years in education, I also was a farmer; one of the things about getting older you have a lot of experiences and you learn from them. In the last 30 years I've had an opportunity to appear and sit in on many Councils, Commissions, State Legislatures, and watch lobbyists, watch developers, I watch people plead their cases on both sides of the case over those years. I've observed some things; what I call the pre-environmental impact days and the post-environmental impact days. the pre-lobbying laws that we have and the post lobbying laws, and there's an abrupt change in what's happened. I think we see today, appearing before legislatures and councils, entirely different sorts of people, pleading their cases, particularly as far as developers. Today's people pleading their cases for developers are young, they're bright, they're articulate, they do their homework, they have their facts and figures, they're usually on a first name basis with the council, the staff, the commissioners. They do their job well. They also have some other things very common. Usually they don't live in the area; they rarely are around once the development has its full potential developed and the problems develop, and that's the thing I've observed through the years. That's not taking anything away from their dedication and their spirit. They also usually snow people with the facts and figures they have before them; some of them are accurate; all of them. I'm sure, are honest in intent; but some are clouded by the means in which they're proposed.

I will try to keep my comments brief, it's been a long evening, and I don't know about you but I don't sit too long, too well for a long period of time, and I'm sure people now wish I'd shut up so they could stretch their legs, but let me just speak briefly--a couple of things I've observed tonight. One, as far as traffic, I have a great deal of respect for traffic engineers. I've had to work with them through the years as a school administrator in mitigating traffic problems, traffic lights, intersections, etc. They're technicians; they do their jobs well and they do their studies well; but one of the things I find very often is they don't bring in the human factor. I think your city man brought up a very interesting point, what's the difference between morning traffic and afternoon traffic. Your consultant says he doesn't see that much difference, to kind of capsule what they're saying. I see a vast difference. No. 1, P.M. traffic, particularly in the winter months, is usually dark or dusk. Lights are on; now that's a human factor. The other thing that's a human factor is what're you and I like after 8 or 9 hours on the job--fatigue factor, the psychological factor. Unfortunately, I don't see these in traffic studies and as I look at these intersections on 805 and as I come home on 805 every night myself approaching dusk, going off on Bonita

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Challberg:

Road and fighting that traffic, you learn little techniques, how to avoid getting over in the right lane so you avoid those people trying to climb back on the freeway, coming out from downtown Chula Vista, but I see the irritation of drivers due to fatigue and I truly wish that in our studies of traffic that we hired some competent clinical psychologists to go into human fields of what is the impact of heavy traffic at that time of the day, because there is a vast difference between morning and evening traffic. Think about it as you go to work tomorrow and when you come home tomorrow night.

I'm not going to dwell on any great deal, except that in looking at some of the capacity and trying as, I suppose a layman, to separate some of those things down, it would seem, just taking one figure, the 17 per cent figure used at one of the intersections as resulting from the EastLake development, reduce that intersection by the 17 per cent and you have an over capacity ramp now brought down to an under capacity ramp, using the figures that were--in other words, from an "F" to a "D" and maybe even a "C" if calculations are correct.

Looking at agriculture, I don't want to spend a lot of time there, and I go back to my farming background and I take some of the things that the articulate young man who immediately preceded me said, water is the key. Yes, water is the key to good agriculture and as a farmer I learned that. But, there's another key, too, and that is, what is the, I call, greed factor. If I have 180 acres of land, how am I going to use that 180 acres of land. I'm going to use it for farming if I see there's no other way to use it, but down the road a developer comes to me, or a farmer that buys me out, then we change the whole factor. And I think you see this with what I call, you know, required zoning, and I don't know any other way to put it. You specify certain lands are going to be agriculture, you will see how money will then pour in to develop and get the best resources. The gentleman's figures are correct, you know, if you're getting \$150 an acre on lease land you'll calculate that out, the poor guy's losing half a million dollars a year. But, I would submit that if that land was currently zoned agricultural, no developer in his right mind is going to lose half a million dollars a year, and I would predict that they would be making some money on that land, using the same water that they're proposing to use for residential. Logic and common sense says to me that it takes less money to grow crops than it does to water lawns, wash cars, washing machines, babies, and so on. I don't have the facts to back it up, but logic, common sense tells me that. I think that's why we're not seeing some of these agricultural lands used, because they're in the hands of long term speculators. We've seen the Williamson Act which I originally supported and thought was a fine act, but it has been used, and I think the facts will show you. In some of the research I've been doing in the last week has demonstrated the Williamson Act has not been used as it was originally passed for; it's been used by land speculators who can afford to hold on to land for ten years to keep it off the market place and not pay taxes, to go into marginal farming, such as dry farming until the time when that land can be utilized and developed.

Let me touch briefly on the schools in which I think I have some expertise. This is one which I happen to say kind of tongue in cheek, I've heard all these stories before. I've heard developers promise the schools and the quality they'd have, and so on, but also as a school administrator have gone through the trials in the last few years of having to lay off people.

Challberg

I've seen programs cut; I see schools in the older areas of town underutilized, closing, where we are forced to build new schools in areas that are being developed, because what I call leapfrog developing, which ties in to my last point. Schools are not an easy matter, school financing is not an easy matter and it's getting worse as we get on down the line. Years ago, I can remember when we as school administrators gleefully, very gleefully, rubbed our hands when the assessed valuations went up because that meant more money in our pockets. The assessed valuation goes up that means we get more money to spend. I think anyone who understands finance today, both at the city level and at the particular school level, which even predates Prop. 13, knows that's no longer true. It is the State's responsibility now and I would not promise, in view of what's been happening at State and Federal governments, and I am a fiscal conservative, but I can't agree with what's happening at the State and Federal governments, that the future's very bright for new schools.

I have to bring in another factor, and I admit it's probably not a popular factor, but one that has to be faced. We live in a land in which the Supreme Court has made decisions, *Brown vs. Board of Education*, 1954. Integration is something we may not want to talk about, but integration is something that is with us, and is going to be with us. The Courts have never moved backward on the issue. We are now talking about, and I don't see this in the environmental impact report, developing a leapfrog community, which could cause serious court problems to the school districts of this area as far as integration. Are we talking about long range transportation of students to integrate the students from the older part of Chula Vista with the area? Is the developer willing to talk about that, as he talks of developing the land? I submit he probably doesn't, and I wouldn't blame him, because that may impact the sale of his land and the development of his homes, but it's something that has to be faced, has to be looked at, should be in the environmental impact report, and I think it's tragic it's not there.

The last is the impact on the taxpayers. I think no matter how you sort it out, there is a direct impact, a fiscal impact, on the taxpayers of the whole area. Not only because of the traffic patterns, because of the school situation, because of a number of factors, and that has to be looked at, and I don't think it has been looked at adequately, and I would submit it should be and must be looked at. History has said, new developments just don't pay for themselves for ten to fifteen years. No matter what the promises are, no matter what the hopes are of these young, articulate people, they are the ones that are going to have to live with it, I won't. I'm not going to be around probably the year 2000, but they will, and I would hope perhaps their words will come back to haunt them. Thank you.

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Escher:

I'm Tom Escher with the San Diego County Department of Agriculture, 5555 Overland Avenue. I came down here tonight to say that the E.I.R. had a lot of good agricultural information in it, and that was my main reason for tonight to be here and to also say that the mitigation measures--there aren't any mitigation apparently, but there are some plans in the nation on land preservation and that was in your report that was sent from the County Planning Department and you've got that tonight.

Also, a really important part of the Department of Agriculture's work is to give agricultural information, and answer questions that you might have about agriculture. Some of the information I'd like to give you tonight is that the climate is the most important agricultural resource San Diego County has. Now, the soil is another resource, and most of the EastLake land does have a resource for production of tomatoes and they are producing truck crops also on that, like they do on the Otay Mesa, same kind of soil. Because of that reason, it is on the important farm land map of the nation, as statewide important land.

As far as the water goes, agriculture does not need a fancy system to put water on agriculture land, 8 inch pipe, a mile long is nothing to an agricultural person, but that's just on top of the ground, portable pipe, whatever you want, so that could be supplied from potable sources or metropolitan water. The use of reclaimed water is legal to this extent: The health code--reclaimed water health code, says, primary water can be used on vineyards and orchards as long as the fruit does not hit the ground. Okay, the Department of Agriculture now is trying to get that same thing applied to tomatoes, because tomatoes have less chance of hitting the ground than avocados do, with the drip system and so on. Okay, then I think the water prices and everything in the E.I.R. are about right, and I want to talk a little bit about the ag. land prices vs. the development prices.

The ag. land price will never be the same as the development prices until the price of food is the same as development. We're paying about 45 per cent right now for development and 15 per cent for food. So, if you take the land at agriculture prices--these leases are agriculture prices--the farmer can make money. If you start adding the development or the speculative prices of land to agriculture, it will not pay to lease or to farm or anything, and that's the difference. If there's any ag. land preservation taking the development price of the land off and assigning agriculture value to it.

Do you have any more questions at this time?

Commissioner

Green: I have a question, I just want a simple answer. Could you start growing tomatoes on that land and would it be possible? I'm a land owner; I want to put tomatoes on the land today and start growing them. Can I do it profitably?

Escher:

What are you going to figure as the cost? Are you going to figure the cost of the land?

Com. Green:

I own it.

Escher:

You don't care about the cost of the land?

Com. Green:

No, I'm the present owner, I pay taxes on the land, that's granted. I'm not talking about opportunity costs, I'm just talking about being the present

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- Green owner and starting to do that. Is it profitable?
- Escher: Well, yes, it's profitable, that's why there's 10,000 acres of that kind of land being farmed every year here. People don't farm just to lose money, you know.
- Comm. Green: That includes providing the irrigation to it, and the cost of water, and so on.
- Escher: Right. Yes.
- Comm. Green: Okay, is it profitable to the extent, like yields 10 percent of the capital per year?
- Escher: Well, it's pretty hard to find out exactly how much money is made on farming, just like it's hard to find out how much money is made on any kind of business, because the people don't really want to say exactly--the Department of Agriculture keeps track of f.o.b. prices of food and the University of California keeps track of how much it costs, and over a ten year period tomatoes will put \$2,170 of net per acre. So, that's profit, isn't it?
- You want a percentage? Okay, people say at different meetings, I've heard them talk about ten or fifteen percent, and then, farming is always waiting for the big year.
- Comm. Green: My dad was a farmer, I know what you're talking about.
- Escher: You wait for the big year, that's the one that you're really going to clean house and make it. And then you make money on your investment, or expenses, and some profit and make a living or whatever, and you're really waiting for the big year is what the farmers do.
- Comm. Stevenson: I guess this is just a general question, never having been a farmer, but this is the third meeting we've had on this E.I.R. and each time probably the most frequent subject is agriculture. So, it concerns me, and then I go home and I read the papers about the government subsidizing farmers-- don't grow this, don't use your land for this. I hear statements that we're feeding the entire world. I hear statements that the government is extremely concerned about the high cost of storage of the excess farm goods that are produced. So this tends to confuse me in the sense of, do we really have a shortage if all these other things are true.
- Escher: You're not talking about coastal agriculture. That's grain, and so on, where they store it. You can't store this coastal agriculture.
- Stevenson: Grain, milk, cheese, dairy products.
- Escher: Okay, the studies of the national ag. land studies they have come to the conclusion, whatever you want to base that study on, it says right now we're exporting one acre out of three. By the year 2000 we'll be exporting one acre out of two, and by the year 2000 we'll have to use all the land that we have left of good land, plus all the marginal land that we have left to produce that. I don't understand for sure either where this subsidy stops and starts and where the storage and all that sort of thing, but on the local scene here, this is the only place left in the nation with resources that can grow year around, especially in the winter time. And that's what we

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- Escher produce, off season vegetables here.
- Stevenson: You're speaking primarily of tomatoes and flowers.
- Escher: Well, tomatoes, truck crops, cabbage, lettuce, squash, peppers, beans.
- Stevenson: Those things that we grow down on the bayfront right now? Are you familiar with our bayfront area?
- Escher: Well, that has grown there for a long time, but it just keeps getting moved farther back that way.
- Comm. Williams: Could you discuss--you're talking about 10,000 acres, where in the county are the acres that are currently
- Escher: Right now most of the acreage is in the north part of the county, before that, most of it was down here. Otay Mesa produced one-quarter of all the county's vegetables, off season vegetables, about four years ago. And then they were having some labor problems and this and that and there's a difference now between the growers in the south and the growers in the north, so the high labor intensive crops now are being grown in the north, the pole tomatoes and other things, where the other crops now, the squash and so on, where they don't have too much labor, they're still growing that in these areas. So, the acreage is still the same, but it's different type of crops is being grown now in the southern part of the county.
- Comm. Williams: Would you say that those acres under cultivation, for the most part, are closer in and subject to development, more subject to development, than the EastLake project.
- Escher: Closer in? I don't know I hadn't thought about it like that, very much. I've thought of it more like
- Comm. Williams: When I drive north to south, or south to north on 5, I see a lot of land cultivated along that corridor.
- Escher: Here's where the climate, the climate is the most important agricultural resource we have. The climate, the eastern edge of that climate is at the ridge
- Comm. Green: : Wouldn't you pick flat pieces?
- Escher: There are no flat pieces. Do you mean like Mission Valley?
- Comm. Green: There are some mesa areas that are flat, aren't there?
- Escher: Well, they're flatter than, I mean, they're flat, but they're not flat as a river bottom. I'm not sure how much more it costs to farm on a relatively flat parcel of ground, to one that's a little bit more, a little steeper. I don't think there is much, with the drip irrigation system you still have to do a lot of contour, so it doesn't make too much difference. When you get really steep, it's a difference. All of this land is suitable then, because it's not too steep.

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Durbin:

My name is Emily Durbin, 852 Cordova Street, San Diego. I had not intended to say any more than the original statement which I read to you at the first meeting from the Sierra Club. I could add to that the Sierra Club Executive Committee has adopted a resolution opposing the development of EastLake at this time, pretty much for the same reasons that I elaborated on in that first statement; primarily, the impact on the irreversible loss of agriculture and the problems with drainage. I can arrange to have a copy of that sent to you if you would like it.

The reason I came down tonight is because an article appeared in the Los Angeles Times this morning, which you may or may not have had a chance to see, and I think it has a direct bearing on what you are considering tonight. As you pointed out, Mr. Williams, the major part of the comments on this particular project have had to do with agriculture, and this article this morning pointed out that there are states on the east coast, namely, Connecticut, Massachusetts, Virginia, Tennessee, who have come to the realization that the shipping cost of California agriculture being sent to the east coast had become so high that they had found it to their advantage economically to start redeveloping their own local agriculture to a much greater extent than they had done so in past years. They found it's cheaper to grow and harvest their own local agriculture in the summer, vegetable crops in particular, than it is to pay to have those crops shipped from California. Of course, they can't do this all year around but for some super market chains, such as, the Stop-N-Shop, which is similar to the Food Basket here in California, where they used to depend 100% on California crops they are now down to 70 or 80%. Now, the implication on this is that what is too expensive for the east coast today may well be too expensive for the southern part of California tomorrow, because energy costs are going to keep going up, and it may very well be that the value of local agricultural land is going to increase in California to the point where this should enter into your considerations when you look at a long term decision that's going to affect this land irreversibly. I'd like to suggest that you consider this and try to keep open the option of using that land for agricultural purposes as long as possible. The question of water, as Mr. Santos pointed out, and Mr. Coleman before him, is certainly a key issue and the reason why I venture to say that a large proportion of the current agriculturally suitable land is not being developed is because of the cost of water. The other cost would be development to occur. There is the possibility of reclaimed water being used, and I can send you, also, an article showing that tomato farmers who had used drip irrigation find that they get a 50% increased yield and if they're using drip irrigation I don't believe this would be counter to the Department of Health criteria for use of reclaimed water. If we find that there is a need for local agriculture, I think we will find a way to use reclaimed water or to use potable water in such a way to make that possible. I don't think that the current situation should blind you to the future potential for agriculture. Thank you, very much.

Comm. Green:

I have a comment or question, maybe you want to comment on this. I have a feeling the growth is going to occur and if it doesn't occur at this spot, then maybe it'll occur further to the east. Does that mean we prefer to have growth further to the east so we can allow agricultural use on this coastal plain. Would you prefer having the growth in the Jamul area, for example, or prefer having it close in to the coast? Are you saying we should have no growth, or are you saying we ought to have it back closer to the mountains?

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Durbin: No. I think you have a different set of circumstances that govern the question of growth in the Jamul area, a totally different set of considerations. You're in watershed land, you're in very steep slopes, you have an erosion potential. You have all kinds of other complications there that may not occur with the EastLake land. It would seem to me that the best place to encourage growth is in the land within the planning boundaries, either of Chula Vista or the community regional plan, that are still not developed. And it's my understanding that the E.I.R. pointed out that there was four times as much land as EastLake available within the current planning boundaries. I would think that's where you would look to accommodate growth first.

Comm. Green: I think a lot of that land is also suitable for agriculture, that would be my guess. And we've seen what happens at this Commission when we talk about really high density within the urban area, itself; people don't want it. So, I think we have a real problem.

Durbin: I agree with you

Comm. Green: I'm not sure your condition is the best either. I think it's going to end up somewhere out there, not in here. The question is how far out do we go.

Durbin: Well, when you do have that dense development in the city, which is going to occur probably, one way or the other, then I think the question of where their food is going to come from, where their water is going to come from, where their waste is going to be treated, becomes a very important consideration. And, for that I believe you should look to the hinterlands around to take care of some of those problems, rather than develop there and develop in the city. Thank you very much.

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DR. MARILYN McDONALD
SWCPG. JOHN RIESS
C.V.RCC STEVEN TAYLOR
C.V.RCC GARY AUGUSTINE
JAMUL-DELZURZ PAUL JACOB

The Task Force formed to study the draft E.I.R. on the proposed Eastlake Development has met four times and has developed the following comments. The Task Force elected, due to time constraints, to address its efforts to five specific areas i.e: traffic, density, sewer/waste disposal, watershed/drainage and schools. Realizing that many significant areas of concern will not be covered by this limited scope, it is hoped that the concern of both the City of Chula Vista Planning Commission and other interested Groups and private citizens will surface the issues should they exist.

1. TRAFFIC

The current draft E.I.R. indicated that this project will incrementally increase traffic throughout the entire Sweetwater Valley. The E.I.R. points out significant traffic impacts which will occur if projected growth, as indicated in the City of Chula Vista General Plan is implemented in the currently unincorporated areas. There are several problems in the traffic analysis of a minor nature which need correction and needs to include major financial considerations which must be addressed by decision makers before the project can be approved. We, the Task Force, have proposed the following mitigating measures:

- A. The significance of this projects traffic impacts cannot be underestimated. The actual impact is not solely from vehicles that leave the project area, but rather from the substantial growth that is either projected or will be induced by this project. The traffic analysis that is used assumes that the Sweetwater Valley and the areas ^{east} of it will develop at the densities shown in the City of Chula Vista General Plan versus the currently adopted County of San Diego General Plan which includes the Sweetwater Valley Community Plan. There is no available method to provide the massive transportation facilities that would be required to carry the traffic loads. Placing this in prospective, in addition to the South Bay Freeway carrying an impossible 80,000 ADT, it would require a 6 lane Bonita Road, a 4 lane Sweetwater Road, Willow Street, Valley Road and San Miguel Road. To partially mitigate the traffic impacts we would suggest, at a minimum, the following measures be implemented;

27a. The issues discussed in this letter of comment are addressed in the EIR. These comments are noted, but do not challenge the accuracy of sufficiency of the EIR thus do not require a response.

27a.

27a

- (1) The City of Chula Vista must conduct a facility financing study to determine how the facilities needed for the proposed densities could be paid for and maintained once they are installed.
- (2) The density of the project must be closely analyzed to reduce traffic and other adverse impacts. If impacts cannot be reduced, feasibility of the project should be analyzed.
- (3) Alternative transportation corridors such as the improvement of Telegraph Canyon Road and/or "H" Street to expressway standards, with a folded diamond interchange at Interstate 805 should be utilized to provide relief routes and to divert traffic impacts onto routes more capable of handling them. Implementation of this concept would aid in reducing the severe impacts on the Sweetwater Valley.
- (4) A phasing program for this project and all other projects in the eastern area of the City of Chula Vista General Plan should be linked to a monitored traffic indicator system. All Highways and key intersections required for service of the area which will be impacted by Eastlake I.e; Bonita Long Canyon Equestrian Estates and the area north of Eastlake should be monitored annually. Whenever an arterial or intersection meets a standard level of service "C" or lower, the growth area's whose service needs impact the area must either be brought to a halt or the projected impact relieved. Failure to implement mitigating measures will result in a continued incremental degradation of the situation with no method to correct the problem within the current City of Chula Vista and County of San Diego policies.
- (5) The City of Chula Vista General Plan should be revised to reflect realistic availability of these facilities. If the City of Chula Vista and the County of San Diego plans were meshed it would relieve the pressure for annexation.

2. DENSITY
 Sections 5.3 and 5.5 in the project alternatives should be expanded to describe in greater detail the less dense alternatives. This is the best vehicle (less density) to relieve the problems created by this

27b. Please refer to the revised alternatives discussion in the EIR.

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conflict with the state's urban strategy. This mitigating measure would bring the project into closer conformity with adopted plans and would provide for a lesser financial impact for off site improvement requirements

3. SEWER/WASTE DISPOSAL
The draft E.I.R. should be more specific in the area of sewage impacts.

If the project does not develop an on site water reclamation project, then the impact upon the sewer facilities between the main trunk line and the project could be quite adverse. The result of sewerage the entire project would consume sewer capacity in the Poggi Canyon, Telegraph Canyon and Salt Creek sewer lines beyond their design capacities. This could result in either significant replacement costs or reduced densities in the commercial and residentially planned areas between Eastlake and currently developed lands.

4. WATERSHED/DRAINAGE
All of the flood control alternatives ^{proposed} done previously for downstream projects describe the proposed Eastlake area as open-space and agriculture therefore this proposed development drainage impact may be an incremental degradation of all downstream facilities. Drainage and flood control has been the source of much controversy and this project drains, in part, into two of the most controversial areas i.e; Long Canyon and Proctor Valley/Central Creek. The mitigation proposal is not adequately described and is not mandated to the level required to assure downstream owners of their security from floods. A comprehensive City of Chula Vista/County of San Diego drainage/flood plan should be developed before any further project approval is allowed. All drainage studies must be up-dated to reflect current proposed densities rather than the 4 du/ac used in this analysis. There must be a clear description of physical facilities that will be required to adequately carry flood waters to a safe channel past downstream owners. This should include a proposed jointly funded project to alleviate the present Acacia Avenue problem in the Sweetwater Valley.

The statement on page 132 of the draft E.I.R. relating to flooding in the Proctor Valley drainage basin is in error. There is a significant flooding problem in the Central Creek drainage system, from Proctor Valley, upstream where it passes under Dawsonia Street.

5. SCHOOLS
The committee has been unable to evaluate specific school proposals. The proposals discussed during the Task Force deliberations indicate there is a strong likelihood that substantially less desirable educational

27c. The EIR identified the potential for significant impacts unless adequate disposal methods are available. Please see response 18a.

27d. As a condition of approval, the developer will be required to assure that runoff from the project site does not exceed pre-development levels. Specific plans for drainage and flood control improvements will be evaluated during subsequent stages of project review.

27e. Please refer to comments 6 and 7, and the revised section of the EIR text.

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Chula Vista City Council should make it a policy that whatever facilities are constructed in Eastlake are on a par with other facilities currently available in the school districts affected.

Without exception, agencies which have responded to this project have raised questions of concern just as I have just done. As the reviewing agency for this draft E.I.R. you have before you a herculean task to determine that it contains all of the requirements of CEQA. The letter submitted by the State of California office of planning and research (State Clearinghouse), the Department of Conservation, the Department of Transportation District II comments, should all be reviewed in great detail as they address issues that will impact several generations beyond this day.

I wish to thank you for extending the review period to allow the Task Force a chance to review the draft E.I.R. in more detail. I also want to thank, publicly, the Cadillac Fairview representatives for their cooperation in assisting this Task Force by supplying information requested. I would like to think that as future proposals for development come forward that we who live in the unincorporated area and those who live within the bounds of the City of Chula Vista will seek the opportunity to work as a team for the common good of our regional community.

December 17, 1981 EIR Hearing Eastlake, Chula Vista

I am Gretchen Burkey, P. O. Box 321, Bonita. For the record I wish to state that though I live in the unincorporated area I am a Chula Vista taxpayer because of owning a condominium in the city. so in addition to grave concerns for the many adverse impacts of this speculative land proposal, the possible fiscal burden of Eastlake affects me personally as it will all of the taxpayers of Chula Vista.

Tonight I wish to speak briefly about the traffic impacts on the Sweetwater Valley in both the incorporated and the unincorporated areas. I feel that impacts of the specific project have been disguised thru claims that the traffic analysis is based on a study of the whole traffic area including all future land development in this area, yet I believe the amount of traffic generated from Eastlake will also be significant. I will be giving you a sheet showing traffic figures pulled from the EIR - on pages 60 and 61 it states "Route 125 (as a Prime Arterial) may not be improved by the year 2000. From pages 64 and 65 is shown the percentage of Eastlake's contribution to roads indicated at the perimeters of the project, the amount of additional traffic Eastlake will contribute to Bonita and/or Sweetwater at year 2000 if Route 125 is not built and the increase will be 104%. Page 62, Figures 3-8, traffic increase to other roads in Sweetwater Valley area at 2000 - the percentage of increase at Otay Lakes Road and Bonita Road we find is 67% - the percent of increases range from 58% to 76%. P. 66 & 67 states that Eastlake project traffic is expected to constitute 16 to 18% of total traffic within the TSA.

Some of the mitigation measures offered on pages 66 and 67 will in my opinion require the need to MITIGATE the MITIGATION because of the adverse impacts the mitigation will have on the entire valley. Sweetwater road will be reclassified as a major arterial. Aren't the Chula Vista taxpayers who live on the golf course in those very expensive homes adjacent to Sweetwater Road going to have heartburn when they learn of the proposed widening of a road which has been designated a Scenic Highway? A road which we the taxpayers will have to pay for.

I am a member of the Sweetwater Woman's Club which is located at the intersection of Willow and Sweetwater Road, the intersection which will experience a 488% increase in ADT'S. This could conceivably spell the end of that club because even now there are times when the traffic noise is so loud it necessitates stopping the meetings because it's impossible to hear the speakers. The clubhouse is one of the oldest, most beautiful structures in the community and if it became unusable because of noise impacts it would be a catastrophic loss to all of us who live in the valley.

Mitigation, page 67, of the EIR states "With preparation of a project development phasing program which is tied to needed circulation improvements Eastlake can be implemented in an orderly, staged fashion to achieve the objectives of the project and a-

28a.

It is acknowledged that substantial increases in traffic flows associated with Eastlake will result on some roadways. However, the traffic study has identified street improvements required to accommodate the traffic increases associated with both EastLake and other developments in the traffic study area.

28b.

Costs associated with road improvements required to mitigate project impacts will be borne by the developer.

28c.

It is acknowledged that the intersection of Willow Street and Sweetwater Road will experience a substantial increase in traffic volumes, and road widenings to four and six lanes, respectively, are recommended to accommodate those volumes. Existing noise levels at the clubhouse can be expected to increase as a result of the additional traffic. However, the EastLake related traffic which would be travelling through the intersection would only total approximately 2700 ADT. This volume of traffic is not sufficient to create an adverse noise impact.

2-11918

void future traffic circulation problems". Granted the objectives of the project will be achieved but many of the future traffic and circulation problems and adverse impacts will be borne by the residents of the valley, both financially and in the deterioration of the quality of life. Therefore, I ask that the EIR not be certified in compliance with CEQA until additional traffic studies are made which include specific feasible mitigations including the cost of condemnations, specific areas for condemnation and what specific agency or person or persons will carry the financial responsibility of these road improvements. Thank you.

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EASTLAKE TRAFFIC IMPACT

P. 60 - 61 Route 125 (as a Prime Arterial) may not be improved by the year 2000
 P. 64 - 65 Figures 3-10 and 3-11 show traffic contributed by EastLake

Network 1 3-10	Orange Avenue	.80 x 13,000 =	10,400
	Telegraph Canyon Road	.98 x 29,000 =	28,420
	Route 125	.58 x 27,000 =	15,660*
	East H Street	.61 x 22,000 =	13,420
	Otay Lakes Road	.48 x 13,000 =	6,240
	Corral Canyon Road	.17 x 19,000 =	<u>3,230*</u>
			77,370
Network 2 3-11	Telegraph Canyon	.74 x 46,000 =	34,040
	East H Street	.41 x 18,000 =	7,380
	Corral Canyon	.18 x 13,000 =	2,340*
	Route 125	.80 x 13,000 =	<u>10,400*</u>
			54,160

* If 125 is not built, these ADT'S will go through Bonita and/or Sweetwater

P. 62 Year 2000 Projected

Network 1	18,890
Network 2	12,740

P. 63 Year 2000 Projected

Network 1 3-8	Bonita Road	37,000	Add * above =	55,890
			Existing =	27,400
			Increase =	104%

P. 64 Year 2000 Projected

Network 2	Bonita Road	33,000	Add * above =	45,740
			Existing =	27,400
			Increase =	67%

P. 55 Figure 3-5 shows 1980 traffic counts

P. 62 Figure 3-8 shows year 2000 anticipated traffic volumes Network 1

	1980	2000	% Increase
Otay Lakes Road @ Bonita Road	15,600	26,000	67%
Bonita Road West	23,200	37,000	59%
Bonita Road East	17,700	28,000	58%
Sweetwater Road @ Woman's Club	5,100	30,000	488%
Telegraph Canyon Road at Otay Lakes Road	3,500	31,000	786%

P. 66 & 67 EastLake Project traffic is expected to constitute 16 to 18 percent of total traffic within the TSA

Gale Burkey

R 11918

League of Women Voters of San Diego



YWCA Building
1012 C Street
San Diego, California 92101
(714) 235-VOTE

Chula Vista Planning Commission
Response to the Eastlake
Environmental Impact Report

December 16, 1981

Dear Commissioners,

The League of Women Voters has studied land use for a number of years at the local, state and national levels. As a result, we have concluded that land is a finite resource, not just a commodity. We believe that in decisions about land use, public as well as private interests should be respected, with consideration for social, environmental and economic factors. The position has led us to support measures to preserve agricultural lands and to support planning that gives priority to new urban development - filling lands within existing urban areas.

We believe new urban development should occur within or contiguous to areas where urban facilities & community services are already available. Infilling & contiguous development do not require expensive extension of major capital improvements (water, sewers, roads) through areas of undeveloped land.

RECEIVED

Sincerely,
Betty Chelley - Natural Resources Educ.

Q-11918

Cadillac Fairview
Homes West

December 16, 1981

The Planning Commission
City of Chula Vista
City Hall
276 Fourth Street
Chula Vista, California 92010

Subject: EastLake Planned Community
Drait EIR S1-5

Gentleman/Madam:

Cadillac Fairview Homes West has completed our review of the subject Drait EIR prepared by Westec Services, Inc. for the City of Chula Vista and is transmitting herein a set of written responses as input to the environmental review process.

It is our conclusion that the Drait EIR is generally adequate but that certain areas of discussion require additional clarification or amplification. With this in mind, our responses pertain to four basic purposes as summarized below:

1. To correct statements or conclusions which are inaccurate and/or misleading with respect to the environmental effect of the project.
2. To improve the EIR by providing supplemental factual data where such data would facilitate determinations regarding "significant effect on the environment" as defined by CEQA.
3. To improve legal compliance with CEQA by adding or clarifying the mitigation measures proposed to reduce potential impacts to insignificant levels.
4. To improve the function of the EIR document as a Master EIR providing for and facilitating subsequent environmental review requirements.

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The Planning Commission
City of Chula Vista
Page Two
December 16, 1981

Our response is provided in two basic parts using different formats. A series of five "response papers" providing needed clarification and/or amplification for certain key EIR topics comprises the first part. The topics addressed consist of (1) Purpose - Subsequent Environmental Review, (2) Agricultural Resources, (3) Transportation and Circulation, (4) Socioeconomic Factors - Population, and (5) Socioeconomic Factors - Fiscal. The second part of our response consists of a listing of the mitigation measures proposed to be adopted by the City as part of the project design and thus satisfy the legal requirement that impacts which can be mitigated are mitigated during the approval process.

Cadillac Fairview Homes West has previously prepared a number of technical studies which have been submitted to the City in support of the project application. Much of the information provided in the documents has been utilized in the Draft EIR. However, there remains documented information of value to the environmental review process beyond that presented in the Draft EIR. We therefore request that the Environmental Data Base, including its technical supporting documents, and the EastLake Planned Community White Papers, Volumes 1 and 2, be incorporated by reference in the Final EIR.

Sincerely,

CADILLAC FAIRVIEW HOMES WEST



Robert L. Santos
Project Director

RLS/es

cc: Mr. Doug Reid (with enclosures)

30a.

The documents referred to provide additional information regarding the proposed project and are available for review at the City of Chula Vista Planning Department. They are referenced in Section IX of the EIR.

30a

2-11-918

EASTLAKE PLANNED COMMUNITY
DRAFT EIR 91-03

RESPONSE RE PURPOSE-SUBSEQUENT ENVIRONMENTAL REVIEW

The Draft Master EIR for the Planned Community of Eastlake in Section 1-1 outlines the purposes of the Master Environmental Review for the proposed General Plan Amendment, rezoning (with a General Development Plan), and annexation of the Planned Community of Eastlake.

Meaningful public input during the various discretionary approvals associated with the Eastlake project can be increased, however, by an expanded discussion of the purposes of the document as a Master EIR and the subsequent environmental review which would be necessary prior to the issuance of future discretionary approvals.

As a comment to the Draft Master EIR, we would suggest that the discussion commencing with the last sentence on Page 1 and going through the end of the first paragraph on Page 2 be supplemented to provide the following information:

"As noted above, this Draft EIR is intended to serve as a Master EIR for the Eastlake project. The Administrative Guidelines to CEQA provide in Section 15069.5:

"(a) Where a large capital project will require a number of discretionary approvals from governmental agencies and one of the approvals will occur more than two years before construction will begin, a staged EIR may be prepared covering the entire project in a general form. The staged EIR should evaluate the proposal in light of current and contemplated plans and produce an informed estimate of the environmental consequences of the entire project. The aspect of the project before the public agency for approval shall be discussed with a greater degree of specificity.

"(b) When a staged EIR has been prepared, a supplement to the EIR shall be prepared when a later approval is required for the project, and the information available at the time of the later approval would permit consideration of additional environmental impacts, mitigation measures, or reasonable alternatives to the project."
* * *

As noted in the summary in the adjacent Table 1-1, Sectional Area Plans, Tentative Maps, and Planned Unit Developments must themselves be subjected to environmental review with respect to the resources and issues listed in Table 1-1 prior to any approval which may result in a significant effect on the environment. When subsequent environmental documents are prepared with respect to later discretionary approvals, further opportunity to review topics under consideration at the time of those approvals will be provided,

2-11-918

as well as an opportunity to recommend further mitigation measures and project alternatives.

As provided for by the Administrative Guidelines to CEQA in Section 15002(f), where subsequent environmental review demonstrates that the project under consideration and its attendant approvals would cause a substantial adverse change in the environment, the lead agency must respond to such information by one or more of the following actions:

- "(1) Changing a proposed activity;
- "(2) Imposing conditions on the approval of the activity;
- "(3) Adopting plans or ordinances to control a broader class of activities to avoid the problems;
- "(4) Choosing an alternative way of meeting the same need;
- "(5) Disapproving the project, or
- "(6) Finding that changes in, or alterations, the project are not feasible.
- "(7) Finding that the unavoidable, significant environmental damage is acceptable as provided in Section 15089."

We have offered the above remarks to assist the public in understanding the later environmental review processes in which they are entitled to participate. Approval of the General Plan Amendment and the attendant rezoning for the EastLake project authorizes Cadillac Fairview Homes West to proceed with a more detailed level of planning. The comments we have offered above hopefully clarify the rights of the community and the decision makers to require further environmental review.

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EASTLAKE PLANNED COMMUNITY
DRAFT EIR 81-05
RESPONSE RE AGRICULTURAL RESOURCES

The loss of agricultural land resource availability will occur as a result of the proposed Eastlake Planned Community and such a loss could be considered a significant environmental effect on a cumulative basis. The Draft EIR concludes that mitigation of the impact on agricultural resources can only be achieved by (1) retaining the existing agricultural designations or (2) alternate project design which would retain portions of the property for agricultural use. Corresponding project alternatives which would be necessary to reduce or eliminate the adverse effect on agricultural resources are presented in Section V of the Draft EIR under "No Project" and Intensive Agricultural Use", respectively.

Retention of Janal Ranch agricultural land availability does not assure its agricultural productivity. The Draft EIR concludes that the loss of the dry-farmed barley production which has been the agricultural use of the Janal Ranch property for over 60 years is not a significant environmental impact. It goes on to state that the economics of dry-farming barley onsite are not good and could create a disincentive for continuing present agricultural uses. Such a conclusion is totally accurate and can be readily substantiated by the property owner, the Western Salt Company. The property owner's cost/revenue associated with barley production on the property is summarized on Table AR-1 for the past 15 year period from 1968 through 1980. A real economic loss to the property owner occurred in each year with the net loss averaging approximately \$90,000 per year.

Given the Draft EIR's conclusion that the loss of current dry-farming agricultural operations on the Janal Ranch is not a significant environmental impact requiring mitigation, the feasibility of production of coastal-dependent crops on the property becomes the key when evaluating agricultural land resource "potential" (i.e., productivity versus availability). Fortunately it is not necessary to perform a rigorous economic analysis of potential agricultural operations to determine that the production of coastal-dependent crops on the Janal Ranch cannot realistically be accomplished in a successful manner within a reasonable period of time.

The critical missing element is water. Water to produce coastal-dependent crops is essential, just as essential as the climate or the soil. The Draft EIR concludes that the provision of water is a "problem involving high cost" yet provides discussions relative to "water availability" and "economic considerations" which are insufficient in this regard and suggest only that the feasibility of the property as a resource for the production of coastal-dependent crops is unknown. An "Eastlake Agricultural Water System Analysis" prepared for UHW by Lowry & Associates, water resource engineering consultants to QWD, and attached for reference as Appendix "R" starts to identify the magnitude of very high costs associated with producing coastal-dependent crops on the Janal Ranch.

30b

30b.

The analysis completed by the applicant concludes that agricultural uses onsite are not economically viable. However, without additional detailed information regarding costs of water systems (other than that presented in this analysis) water consumption and return from crops, such a conclusion is not adequately substantiated and could be very different were a comprehensive analysis completed. In addition, the future economic viability of agriculture onsite may be influenced by changes in the relative costs of land, water, capital improvements, transportation and labor. The irreversible conversion of this resource to urban development appears to be premature until more detailed information is available. There is an ongoing study being prepared by the CVPD for all the agricultural areas in the eastern Chula Vista Planning Area which may identify certain areas as suitable for agriculture on a long-term basis. No final conclusions should be drawn until such issues are resolved.

12-11-1918

The following brief itemization of facts and factors extracted from the Lowry & Associates analysis and the Rancho Jamal Agricultural Data Base prepared by Mr. Robert J. Buckner, San Diego County Department of Agriculture, retired, support the conclusion that the production of coastal-dependent crops on the property is not feasible.

1. The amount of coastal-dependent crop agricultural land available within the region should be put into perspective. On a County-wide basis, a minimum of 62,000 acres of available agricultural land has been defined as "suitable" for coastal dependent crops. Of this amount, 49,000 acres, or 79% of the total, is not being used for the production of coastal-dependent crops at this time. The Jamal Ranch represents approximately 4.6% of the total agricultural land suitable and available for coastal-dependent crops in the County and only 3.8% of the suitable agricultural land not being used to produce coastal-dependent crops. Development of the Jamal Ranch per the proposed East-Lake Community Plan would reduce the available but unused coastal-dependent agricultural land in the County by approximately 0.5% per year over the next 20 years. More importantly, the fact that the available land is not being used for higher cash value coastal-dependent crops must be acknowledged as a meaningful, if qualitative, indication of potential economic viability.
2. According to Tables 3-1 and 3-2 of the Draft EIR, 96% of the available, coastal-dependent agriculturally suitable land is suitable for tomatoes only (i.e., rated fair or good). According to Buckner, the land should be labeled "tomato land." Although tomato crop yields per acre could be high, double-cropping with other coastal-dependent vegetables would not be viable.
3. A capital expenditure of \$6,298,700 would be required to implement the agricultural water system necessary to produce tomatoes on the suitable coastal-dependent crop agricultural land within Jamal Ranch. Assuming that such an improvement could be financed over a twenty-year period and financed at a below-market annual interest rate of 15%, the annual cost of providing the water distribution system only (principal and interest) would be approximately \$995,000 per year. It should be noted that this cost estimate assumes a well-managed and efficient drip irrigation system and is, therefore, more expensive, capital cost wise, than the alternative use of sprinkler or furrow irrigation methods. Nevertheless, the drip irrigation concept is the least cost watering solution since it utilizes approximately 65% of the total volume of water that would be required if the sprinkler or furrow method was utilized. Incremental increased capital cost of the drip irrigation system is more than offset by the incremental annual water cost savings (i.e., \$700,000 using \$265 per acre-foot³ per (AFFT) that would be as-solicited with use of the sprinkler or furrow irrigation methods.
4. An estimated 90% of the coastal-dependent crop acreage is produced on land leased to growers. The going rate for leases is currently about \$150 per acre per year. Since the property owner, Western Salt Company, is not in the agricultural business, a land lease approach to

* The State precludes the use of reclaimed waste water to irrigate edible crops.

30c. The use of reclaimed water is not precluded for all edible crops. The reclaimed water health code currently allows its use only on vineyards and orchards if fruit does not touch the ground. It does not presently allow use for tomatoes, although this is being reevaluated at this time.

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producing coastal-dependent crops on the Janal Ranch would have to be employed. Assuming that only the net "suitable" coastal-dependent crop agricultural land (i.e., 2,820 acres) is leased, annual revenues to the property owner from the production of coastal-dependent crops (i.e., tomatoes) on the Janal Ranch would amount to approximately \$433,000 per year.

Based on the above facts, the production of coastal-dependent crops (i.e., tomatoes) on the Janal Ranch would portend real economic losses to the property owner of approximately \$572,000 per year over a 20-year period (and this assumes no general and administrative costs). Stated another way, the conversion of current dry-farmed agricultural land to coastal-dependent crop production would result in a net annual increased economic loss to the property owner in the order of \$500,000 per year over what would be the projected development period for the EastLake project.

The Janal Ranch's real "potential" as a productive agricultural resource is that represented by current dry-farming operations. Loss of dry-farming is not a significant environmental impact.

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TABLE A61

JANU. RANZI
SUMMARY OF ANNUAL DRY-FARMING COSTS/REVENUES

YEAR	REVENUE FROM		COSTS			DIFFERENCE PROFIT/LOSS
	BARLEY SALES	DIRECT OPERATING EXPENSES*	PROPERTY TAXES			
1968	42,719	51,179	69,018			(88,458)
1969	57,160	57,520	70,247			(70,607)
1970	29,072	41,137	79,247			(91,512)
1971	17,194	42,552	129,001			(154,059)
1972	30,201	52,511	130,388			(152,698)
1973	170,552	51,595	119,461			(507)
1974	61,364	45,395	118,685			(105,216)
1975	21,917	45,811	119,036			(142,036)
1976	76,780	85,286	122,686			(131,192)
1977	51,764	60,856	112,622			(121,694)
1978	120,796	72,740	73,060			(25,094)
1979	125,857	79,342	78,929			(52,434)
1980	78,510	81,065	82,101			(84,626)
TOTALS	864,109	727,472	1,504,484			(1,167,847)

* Does not include any administrative or management expenses.

APPENDIX R

EASTLAKE AGRICULTURAL

WATER SYSTEM ANALYSIS

The purpose of this analysis is to determine what water system facilities would be required for a potential agricultural operation on the EastLake project. It was assumed that tomatoes would be the sole product of this operation, and two crops a year would be harvested. A total of 2000 acres out of 3073 was assumed to be suitable for agricultural operations based on the EIR.

The EastLake project site is located within the coastal area of San Diego County, providing a suitable climate for growing tomatoes. Based on a 4 month growing cycle, the double cropping operation was assumed to start March 1 and end October 31, an 8 month season providing the maximum potential evapotranspiration and thus productivity of the year.

Water use of tomato crops at this location was estimated, as shown in Table 1, using local pan evaporation, rainfall data, and other information from the U.S. Department of Agricultural Technical Release No. 21 (U.S. Dept. Agr. TR21) and a report by Lowry & Associates "Water Balance Analysis for Jamacha Basin", July 1981. The average water use determined by this estimate is 5000 AF/YR. This estimate assumes a well managed and efficient drip irrigation system. Drip irrigation is more expensive, capital cost-wise, than furrow or spray irrigation but water savings will more than make up for the additional capital cost.

Water can be supplied by a new connection to the Second San Diego Aqueduct which passes through the project site on its western boundaries. However, water must be taken from the aqueduct at a uniform rate requiring local storage facilities.

The maximum monthly demand would be 5.16 inches/month. Using peaking data from the U.S. Dept. of Agr. TR21 as shown in Table 2, a peak daily requirement was determined to range from .17 to .20 inches/day or 9 to 11 mgd. The maximum of 11 mgd was used to be conservative. At a minimum, a reservoir supplying one maximum day's demand or 11 million gallons is recommended. This will provide peak flows as well as serve as an emergency reserve if there is a temporary outage of the water supply system.

The hydraulic gradeline of the aqueduct is insufficient to supply the majority of the project site. Elevations range from 750 feet to less than 450 feet. Assuming a minimum service pressure of 40 psi, the hydraulic gradeline of the connection will only serve areas at an elevation of 543 feet or less. Since these areas are small and are scattered throughout the site, it is not practical to provide service directly from the aqueduct. Rather, water should be pumped to a

reservoir and subsequently distributed to the entire site. Two pressure zones should be used with the lower zone serviced by pressure reducing stations off the higher zone system. The reservoir should be placed at 842 feet in order to provide 40 psi at a service elevation of 750 feet. It is recommended that the reservoir be sized at a minimum of 11 million gallons. A preliminary layout of the required water facilities is given in Figure 1. Zone 1 and Zone 2 are shown assuming a maximum service pressure of 125 psi and a water level in the reservoir of 852 feet.

An open earthen type reservoir was selected as the most economical, but should be lined and covered to minimize debris and other contaminants which could clog the drip irrigation system. The lining and covering is assumed to be a rubber type material such as Hypalon.

A summary of the system costs is presented in Table 3.

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TABLE 2

Peak period average daily consumptive use rates (u_p) as related to estimated actual monthly use (u_m)

Net Irrigation Application I (Inches)	Computed Peak Monthly Consumptive Use Rate (u_m) in Inches $\frac{1}{2}$																
	4.0	4.5	5.16	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
	Peak Period Daily Use Rate (u_p) in Inches per Day																
1.0	.15	.18	.20	.22	.24	.26	.28	.31	.33	.35	.37	.40	.42	.44	.46	.49	.51
1.5	.15	.17	.19	.21	.23	.25	.27	.29	.32	.34	.36	.38	.41	.43	.45	.47	.50
2.0	.15	.16	.18	.20	.23	.25	.27	.29	.31	.33	.35	.37	.39	.41	.44	.46	.48
2.5	.14	.16	.18	.20	.22	.24	.26	.28	.30	.32	.34	.36	.39	.41	.43	.45	.47
3.0	.14	.16	.18	.20	.22	.24	.26	.28	.30	.32	.34	.36	.38	.40	.42	.44	.46
3.5	.14	.16	.18	.19	.21	.23	.25	.27	.29	.31	.33	.35	.37	.39	.41	.44	.46
4.0	.14	.15	.17	.19	.21	.23	.25	.27	.29	.31	.33	.35	.37	.39	.41	.43	.45
4.5	.14	.15	.17	.19	.21	.23	.25	.27	.29	.31	.33	.35	.37	.39	.41	.43	.45
5.0	.13	.15	.17	.19	.21	.23	.25	.26	.28	.30	.32	.34	.36	.38	.40	.42	.44
5.5	.13	.15	.17	.19	.21	.22	.24	.26	.28	.30	.32	.34	.36	.38	.40	.42	.44
6.0	.13	.15	.17	.19	.20	.22	.24	.26	.28	.30	.32	.34	.36	.38	.40	.41	.43

1/ Based on the formula $u_p = 0.034 u_m 1.09 I^{-.09}$ where
 u_p = Average daily peak period consumptive use in inches.
 u_m = Average consumptive use for the peak month in inches.
 I = Net irrigation application in inches.

TABLE 1

AVERAGE MONTHLY WATER
 BALANCE FOR TOMATO CROP
 AT EASTLAKE PROJECT

MONTH	PAN EVAPORATION (in)	TOMATOES P.E.T. (in)	RAINFALL (in)	RUNOFF (RAINFALL) (in)	REQUIRED IRRIGATION (in)
MAR	4.96	3.03	2.09	0.21	1.27
APR	5.89	3.59	1.03	0.10	2.93
MAY	7.05	4.30	.28	0.03	4.46
JUN	7.22	4.40	.06	0.01	4.79
JUL	7.71	4.70	.01	0	5.16
AUG	7.37	4.50	.09	0.01	4.86
SEP	5.91	3.61	.18	0.02	3.80
OCT	4.84	2.95	.51	0.05	2.74
TOTAL	50.95 inches 4.25 AF/AC/YR				30.01 inches 2.5 AF/AC/YR

NOTES:

- 1) Lowry & Associates Report "Water Balance Analysis for Jamacha Basin" July 1981.
- 2) 10% assumed
- 3) includes 10% leaching requirement

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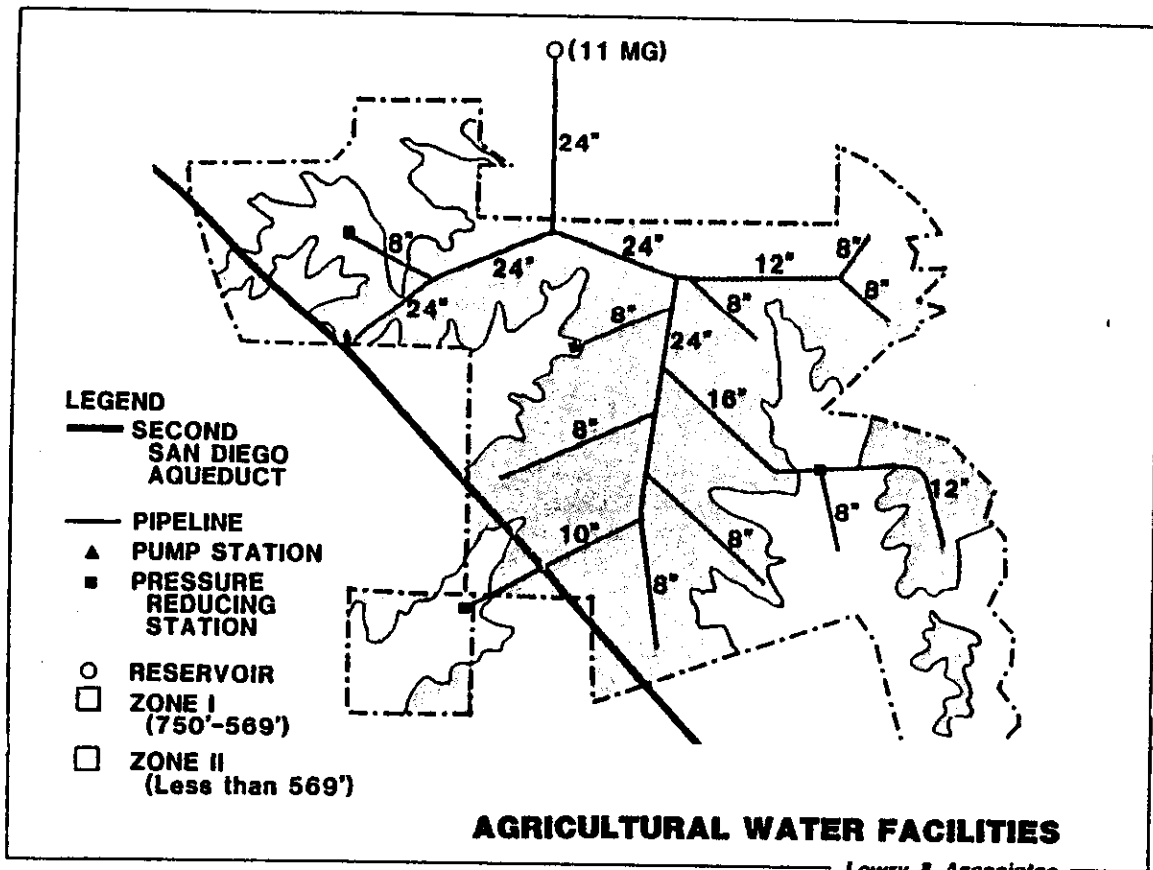


FIGURE I

TABLE 3
WATER SYSTEM COSTS FOR A
POTENTIAL AGRICULTURAL OPERATION AT EASTLAKE
ENR 3700

FACILITIES	QUANTITY/ SIZE	UNIT COST	TOTAL COST
1. Connection to Aqueduct	1	L.S.	\$ 150,000
2. Pump Station	745 hp/ 8333 gpm	L.S.	745,000
3. Reservoir, Earthen: Lined & Covered	11 mg	0.08/gal	880,000
4. Pressure Reducing Stations	4	\$5,000 ea	20,000
5. Distribution System:			
24-inch pipe	17,500 lf	\$48/lf	840,000
16-inch pipe	4,300 lf	\$32/lf	137,600
12-inch pipe	7,500 lf	\$21/lf	157,500
10-inch pipe	4,300 lf	\$18/lf	77,400
8-inch pipe	20,800 lf	\$14/lf	291,200
6. Drip System	2,000 ac	\$1500/ac	3,000,000
	TOTAL		\$6,298,700

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EASTLAKE PLANNED COMMUNITY
 DRAFT EIR 81-05
 RESPONSE RE TRANSPORTATION AND CIRCULATION

The traffic analysis performed by SGA in the context of the Draft EIR is technically sound and represents state-of-the-art traffic modeling for sub-regional transportation planning purposes. Even so, it is important to understand that such a study has limitations on its applicability as a tool to evaluate project-related traffic impacts. It is primarily a planning tool and is well suited for testing specific land use assumptions against master plan circulation system functional efficiency considerations. Used correctly, such a study becomes the framework and starting point for subsequent, more definitive transportation planning efforts as proposals for specific development increments are advanced.

Unfortunately, the Draft EIR is overly simplistic in presenting findings of the traffic study and explaining the manner in which interpretations and conclusions can be drawn. The credibility of the study and its validity as a planning tool are undermined as a result. To facilitate better understanding of transportation and circulation factors, the following clarifications and amplifications should be incorporated into the Final EIR.

SUMMARY OF CONCLUSIONS

1. The major roadway improvements suggested as mitigation measures in the Draft EIR are mitigation measures necessary due to assumed growth within the 25,000 study area and are not necessarily required to mitigate traffic impacts of the EastLake project. 30d. This clarification is noted.
2. Modification of Year 2000 land use and development assumptions could significantly alter traffic study findings in terms of volumes and, therefore, roadway improvement requirements. For example, use of the County's adopted General Plan as it pertains to ultimate development in the Sweetwater Valley (i.e., Bonita) would reduce development intensity in that area by about 50% with a corresponding decrease in traffic demand. Similarly, deletion of the major shopping node shown on the City of Chula Vista GP at the northeast corner of San Miguel Road and Procter Valley Road would substantially change traffic impacts in that part of the Sweetwater Valley. 30e. These clarifications are noted.
3. Many of the General Plan circulation components which do not currently exist are of a "regional public" nature requiring concerted implementation efforts beyond the purview and/or capabilities of an individual development project. The key element in this regard is the north/south transportation corridor (i.e., former SR125) shown on both the City and County General Plans. The ultimate disposition of that facility can only be addressed once multiple public agency goals and needs are defined and a broad-based financing program established. 30f. Traffic improvements which are necessary to accommodate future traffic volumes, including the proposed project, are identified in the EIR. While some of these may not be funded solely by individual developers, they will be required to be in place as conditions of development. Table 3-2A in the EIR indicates the required improvements and responsibility for completing them.
4. Level of service standards within the study area should acknowledge probable future improvement constraints, both physical and financial. 30g. This comment is noted. It is agreed that in currently urbanized areas a Level of Service "D" may, under some conditions, be acceptable for certain portions of the circulation system. In newly developing areas, however, the circulation system should be designed to accommodate eventual traffic volumes at a higher level of service. These will be evaluated at the time of more detailed project review.

associated with gradual urbanization of the study area. While design flexibility should be preserved to the extent practical, the incremental nature of growth seldom allows the pure application of ideal conditions. Due to the extent of "regional public" facilities involved and the severe financial limitations imposed on government at all levels, not to mention the private sector, a level of Service "P", typically considered acceptable in an urban area, should be considered acceptable for certain links in the circulation system.

5. Consideration should be given to the planning and programming of Telegraph Canyon Road as a six-lane, divided arterial from EastLake to Otay Lakes Road. With reference to the mitigation requirements presented in the Draft EIR as well as Tables T-3 and T-4, herein, it can be shown that such a six-lane, divided Telegraph Canyon Road would eliminate the East-Lake-related need for both the suggested Otay Lakes Road and Orange Avenue extensions across Otay Ranch. Further, the resulting level of service on Telegraph Canyon Road would increase while overall improvement costs would decrease.

30h

30h. This alternative road system is currently being planned by the applicant. Preliminary studies indicate that the effects discussed in the comment would result from a six-lane divided Telegraph Canyon Road. A more detailed study to address what Levels of Service would be provided will be required prior to consideration of the first Sectional Area Plan.

6. The financing of the circulation system internal to EastLake is anticipated to be project responsibility. Implementation of the internal system would contribute to overall circulation system implementation including several major links in the regional and/or sub-regional network. External transportation projects will require financing by a combination of private and public sources, including possible State transportation funds, benefit assessment districts, reimbursement agreements, etc.

30i

30i. Comment noted. Completion of external transportation improvements which are required to serve EastLake and other existing and future traffic must be assured prior to project development. A phasing plan for financing and implementation of the circulation system will be completed prior to submittal of the first Sectional Area Plan.

7. The timely implementation of certain external transportation facilities may be required to meet the travel demands associated with cumulative impacts during individual phases of the EastLake project. Subsequent project approvals at the Sectional Plan Area (SPA) or subdivision map level could be conditioned to limit or prohibit development in the absence of facility financing for project-related needs. Such facilities are listed on Tables T-3 and T-4, subject to modification through subsequent study.

30j

30j. Comment noted. Limitations on development based on facility financing for project-related needs will be required at the time of subsequent project approvals.

8. A definitive traffic analysis assuming only existing development (at the time) and approved land use plans would logically be performed in the context of focused environmental review for each SPA approval required per the General Development Plan-General Development Schedule adopted for the EastLake Planned Community. Internal and external circulation system needs would be defined and improvement responsibilities/schedules established.

30k

30k. Comment noted.

A brief discussion of the various factors leading to the above conclusions follows.

LAND USE ASSUMPTIONS

Transportation planning studies recognize the fundamental linkage between land use development and transportation. Given a set of land use assumptions for a

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specific point in time, the traffic study seeks to interpret the assumed land use patterns in terms of travel demand. The study thus illustrates the cumulative transportation implications of the assumed land uses and permits review and evaluation of the circulation needs corresponding to the land use assumptions.

The Eastlake Draft EIR and supportive traffic studies serve to identify cumulative traffic impacts associated with build-out of the Eastlake project and the other assumed growth in the study area by the year 2000. The traffic volumes and required improvement standards suggested on Figure 3-8 and Figure 3-9 of the Draft EIR are simply a reflection of the development assumed to occur within the region by the year 2000. While the SANDAG Series V Forecast was utilized for regional land use assumptions, land use within the 25,000 acre traffic study area was set drastically higher than Series V to assure conservative results. Unfortunately, neither the Draft EIR nor the supportive traffic study by SCA provide a summary of the key land use assumptions which are the basis for the study results. Due to the direct relationship of traffic volumes projections to land use assumptions, and since output from the computerized model is only as good as the input, it is important that the Final EIR note the land use assumptions used. Further, there should be an acknowledgment that identified traffic impacts could change substantially should certain of the conservative land use assumptions not be realized. Important land use assumptions include the following:

1. Within the Bonita and Sunnyside areas, land uses designated under the current City of Chula Vista General Plan were assumed instead of those designated on the current County of San Diego General Plan (i.e., the Sweetwater Community Plan adopted by the Board of Supervisors, August 5, 1977 and revised December 19, 1979). As a result, approximately 11,000 residential units were assumed to exist within that area by the year 2000 whereas the County General Plan provides for less than 6,000 total residential units at build-out of the area.
2. Within the El Rancho Del Rey specific plan area, the maximum possible dwelling units and acreages for each land use were utilized. A total of 10,000 residential dwelling units were assumed versus the 6,000 dwelling units actually permitted under the existing zoning.
3. The Bonita Miguel area was assumed to have 9,000 dwelling units by the year 2000. Additionally, the 40 acre major commercial center shown on the City of Chula Vista General Plan at the northeast corner of the intersection of the Transportation Corridor (i.e., former SR125) and San Miguel Road was assumed built-out. A traffic generation rate per acre equal to that assumed for the 60 acre Plaza Bonita Regional Shopping Center was used.
4. The United Enterprises property, Otay Ranch, was assumed to have about 10,000 dwelling units by the year 2000.

It should be noted that the traffic analysis associated with Network 2 assumed reduced land use intensity. Land use assumptions were reduced in those

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areas exclusively served by the six roadway segments eliminated from the circulation system (i.e., the Network 2 alternative highway network). As a result, land use reductions occurred for much of the United Enterprises property in the study area, as well as most of the Bonita Miguel area.

TRAFFIC ASSIGNMENT

Another area of needed amplification pertains to the manner in which improvement standards (i.e., six lanes, four lanes, or two lanes) for each segment of the roadway network were identified. Lane requirements and roadway classifications were established by applying generalized roadway design capacities to traffic demand numbers (i.e., ADT) associated with the land use assumptions. Aside from the conservative nature of the land use assumptions themselves, it is important to note that the traffic model does not account for highway capacity or congestion factors in assigning projected travel to specific roadway segments. Accordingly, a Level of Service "C" was considered appropriate for all arterial highways within the study area. (Level of Service is a qualitative nature used to indicate a relationship between an existing or projected traffic volume and an estimated capacity for a segment of roadway.) As a practical matter, Level of Service "D" is generally used as the lowest desirable service level in areas where practical constraints of economics, physical controls, etc., exist such as an area transitioning from a rural to a more urban situation. Thus, model results reflect probable travel desires rather than actual traffic flow adjusted for facilities which might be constrained to a specific capacity.

INTERSECTION CAPACITY

With respect to level of service, the capacity analysis within the Draft EIR indicates four intersections operating at a Level of Service "E" or "F". A traffic-lane capacity of 1,500 vehicles per hour was used when arriving at this determination. It should be noted that this capacity figure is somewhat lower than that used by many agencies in Southern California when analyzing signalized intersections. Many counties and cities within California utilize 1,600 vehicles per hour per lane for their assessment criteria. The City of San Diego has indicated that they use a factor of 1,500 vehicles per hour for turn lanes and 1,700 vehicles per hour for straight-through lanes. The ITE Journal, August, 1978, Page 12, reports measured lane capacity values of up to 1,700 vehicles per hour, and recommends using a conservative factor of 1,600 vehicles per hour. As a result, the volume and capacity ratios utilized in the Draft EIR are, in our opinion, overstated. Using 1,600 vehicles per hour, the level of service would improve to that shown on Exhibit I-1 (Network 1).

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TRAFFIC CONTRIBUTION

The Draft EIR states that the EastLake contribution to traffic on individual roadway segments is shown on Figures 3-10 and 3-11 of the Draft EIR for Net-works 1 and 2, respectively, and that these figures "provide clear definition of offsite impacts." Such a conclusion distorts the validity of the traffic study and its intended application. The percentages of traffic contributions shown on figures 3-10 and 3-11 actually indicate trips with either an origin or a destination within the EastLake Planned Community. Should the EastLake Planned Community not be implemented, a substantial number of these trips would still occur within the arterial highway system, although possibly along different routes. For example, many of the work and shopping-related trips which have their destinations in EastLake also have their origins within existing and assumed future residential areas elsewhere in the study area. Should the employment and shopping destinations within EastLake not occur, these residential areas would still generate work and shopping trips but now the trips would have destinations elsewhere within the study area or outside of it. As a result, it is likely that average trip length in the study area would increase should EastLake be eliminated. Traffic volumes on any given segment of the arterial system could actually increase should EastLake be deleted.

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301. It is acknowledged that work and shopping-related trips which would have destinations within EastLake would have to occur elsewhere if the project is not developed. However, those other locations would not necessarily be farther away from their origin (trip length) but would be towards a different direction from EastLake.

"REGIONAL PUBLIC" IMPROVEMENTS

"Regional public" facilities can be categorized as those which: (1) typically serve too large an area to be tied to an individual land development project; (2) usually provide substantial benefits to existing development in addition to the new development; and (3) cannot be provided on an incremental basis based on need or demand generated by an individual development project. The Draft EIR should clearly acknowledge that such facilities exist within the traffic study area and that related facility financing questions cannot be resolved within the context of the Draft EIR. Network 2 as identified in the Draft EIR is valuable in this regard since it analyzes overall traffic system impacts should the implementation of certain planned "regional public" improvements not occur.

ONSITE TRANSPORTATION FACILITIES

The EastLake project will involve construction of several arterial roadways onsite which can be expected to provide subregional benefits as well as serve local needs. The "transportation corridor" (former Route 125) represents a potential major north-south corridor from State Route 117 to the South Bay Freeway (Route 54). This roadway linkage appears on the circulation plans of the City of Chula Vista, County of San Diego, and City of San Diego. If the transportation corridor is implemented per these circulation plans, a major portion of the facility traversing the EastLake project would be phased in the context of the EastLake development program. Should a regional or sub-regional concept not be implemented, the portion of roadway within the EastLake project would be constructed to serve a local transportation function similar to other roadways within the EastLake project area.

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It should be emphasized that development within the EastLake Planned Community does not rely extensively on the implementation of the transportation corridor concept, even though it passes through the community. Projected traffic volumes could be accommodated on a two/four lane roadway within the project area. The higher projected volumes on the transportation corridor north of San Miguel Road appear to be the result of the limited circulation system in that area and the potential traffic generated in this area from the assumed major commercial site as discussed earlier.

The needs for a transportation corridor beyond the year 2000 are unknown and depend upon future policy decisions of regional magnitude. It is proposed that the transportation corridor facility be classified "right-of-way reserve" to enable it to be ultimately constructed to a high level arterial highway or to expressway standards, if necessary. The maximum width right-of-way reserve designation is proposed to allow the City, County, and State sufficient time to determine the ultimate needs for this facility within the EastLake community and surrounding areas. Actual development of the roadway would occur commensurate with that of traffic demands in this area.

CUMULATIVE VERSUS DIRECT IMPACTS

In light of factors such as those discussed above, it is impractical to utilize a 25,000 acre computerized traffic modeling analysis to accurately determine project impacts 20 years hence. Efforts to identify specific project impacts are more appropriate at each of a series of smaller, more discreet development phases using the best land use and traffic data available at the time. The real value of the traffic study performed in the context of the Draft EIR pertains to its use in testing the functional efficiency of the general plan circulation system and flagging potential problem areas associated with cumulative growth. Public agencies can then initiate concerted efforts to monitor and resolve the potential problem areas and/or key the approval of specific projects in the area to certain roadway improvements needed prior to or concurrently with development increments.

The findings of the traffic study completed for the Draft EIR supports the conclusion that the general plan circulation system would function efficiently and safely with acceptable levels of service throughout the study area. Certain major roadway improvements will be needed to implement the circulation system associated with the City's General Plan. Major road improvements needed to avoid significant impacts of general plan-related growth have been identified but improvement areas pertaining to the cumulative effects of the EastLake project have not been flagged. With this in mind, the following, primarily qualitative, analysis of EastLake cumulative impacts is offered.

Based on existing and projected traffic demand volumes and percentages identified in the Draft EIR, required roadway improvement standards can be approximately for three hypothetical CP growth cases: (1) "Total, Year 2000," (2) "Total, Year 2000 without EastLake," and (3) "Existing Development plus EastLake Only." While the latter two cases do not have any real meaning from

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a practical transportation planning standpoint, they do offer some insights and perspectives regarding potential direct versus cumulative effects. That is, a comparison of "Total, Year 2000" with "Total, Year 2000 without EastLake" for selected links starts to suggest cumulative impacts, i.e., incremental roadway improvements required assuming EastLake does not develop but the balance of the traffic study area develops to the Year 2000 development assumptions used. Similarly, a comparison of "Existing Development Plus EastLake Only" with existing and/or committed roadway improvements starts to suggest direct impacts, i.e., incremental improvement requirements above what exists today if no other development except EastLake occurs by the Year 2000. Obviously, neither case can reasonably be expected to occur and are suggested only for qualitative analysis purposes.

Tables T-1 and T-2 have been prepared to summarize pertinent data for select links of the Network 1 and Network 2 circulation systems, respectively. The links generally correspond to the "major road improvements which will be needed" as identified in the Draft EIR (Pages 60-67). It should be noted that required improvement standards do not necessarily correspond to Figures 3-8 and 3-9 of the Draft EIR due to two factors. Level of Service "D" has been taken as the lowest desirable service level where significant physical constraints could limit roadway widening. Second, the four-lane roadway category used in the Draft EIR have been expanded to reflect both "divided" and "undivided" four-lane roadway improvement standards consistent with typical roadway improvements. A four-lane, divided roadway has a 50% greater design capacity than a four-lane, undivided roadway.

The circulation system links where needed roadway improvements associated with assumed GP land use development (including EastLake) by the year 2000 exceed those existing and/or associated with assumed GP land use development without EastLake are summarized in Table T-3 below:

TABLE T-3

NETWORK 1		NETWORK 2	
1.	Transportation Corridor from project to San Miguel Road. (Portion only)	1.	Proctor Valley Road from project to San Miguel Road.
2.	Otay Lakes Road from Telegraph Canyon Road to Orange Avenue.	2.	San Miguel Road from Proctor Valley Road to Corral Canyon Road.
3.	Orange Avenue from Otay Lakes Road to project.	3.	Bonita Bridge.
4.	Telegraph Canyon Road from project to Otay Lakes Road.	4.	Telegraph Canyon Road from project to Otay Lakes Road.
5.	Bonita Road from Otay Lakes Road to Sweetwater Road (Willow).		

The circulation system links where needed roadway improvements associated with existing traffic volumes plus EastLake-related traffic exceed those existing or committed are summarized in Table T-4 below:

RESPONSE RE TRANSPORTATION AND CIRCULATION

TABLE T-4

NETWORK 1		NETWORK 2	
1.	Transportation Corridor from project to SR54.	1.	Proctor Valley Road from project to San Miguel Road.
2.	Otay Lakes Road from Telegraph Canyon Road to Orange Avenue.	2.	Bonita Bridge.
3.	Orange Avenue from Otay Lakes Road to project.	3.	Sweetwater Road from Bonita Bridge to SR54.
4.	Telegraph Canyon Road from project to Otay Lakes Road.	4.	San Miguel Road from Corral Canyon Road to Bonita Road.
		5.	Telegraph Canyon Road from project to Otay Lakes Road.

Together, Tables T-3 and T-4 suggest those roadways which would be impacted by the EastLake project in a manner varying from cumulative to direct subject to project phasing and adjacent growth. All of the roadways are of a regional public nature in that they provide for major circulation needs of benefit to neighboring properties as well as EastLake. Further, they all relate to needed roadway improvements for the north/south transportation corridor and Telegraph Canyon Road and/or alternative improvements along those travel corridors should a regional public transportation corridor solution not be implemented. That is, the disposition of roadway improvements linking the project to SR54 and/or the disposition of Telegraph Canyon Road could likely effect the rate of growth permitted within the EastLake project.

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TABLE T-1

CUMULATIVE TRAFFIC IMPACTS (NETWORK 1)

ROADWAY	SECTION	TRAFFIC DEMAND VOLUME			REQUIRED IMPROVEMENT STANDARDS			REMARKS
		TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	
Transportation Corridor (former Route 125)	Project to San Miguel Rd.	27,000-36,000 ADT	11,000-22,000 ADT	14,000-16,000 ADT	4-lane, divided to 6-lane, divided (LOS "B/C")	4-lane, divided (LOS "A")	4-lane, undivided (LOS "B")	R/W reserved by Contra Costa County for 2-lane road after 1985
	San Miguel Rd. to Sweetwater Rd.	53,000 ADT	42,000 ADT	11,000 ADT	6-lane, divided (LOS "E")	6-lane, divided (LOS "C")	2-lane (LOS "D")	Same as above
	Transportation Corridor to SR 54 (Sweetwater Rd.)	42,000 ADT	35,000 ADT	6,000 ADT + 7,000 ADT	6-lane, divided (LOS "C")	6-lane, divided (LOS "B")	4-lane undivided (LOS "A")	Ex. 2-lane
Otay Lakes Rd.	Telegraph Cyn. Rd. to Orange Ave.	11,000-13,000 ADT	7,000-8,000 ADT	3,000-6,000 ADT	4-lane, undivided (LOS "A")	2-lane (LOS "A")	2-lane, (LOS "A")	
Orange Avenue	Otay Lakes Rd. to Project	11,000-13,000 ADT	3,000 ADT	8,000-10,000 ADT	4-lane, undivided (LOS "A")	2-lane (LOS "A")	2-lane (LOS "C")	
Telegraph Canyon Rd.	Project to Otay Lakes Rd.	27,000-31,000 ADT	8,000-11,000 ADT	4,000 ADT + 19,000-28,000 ADT	4-lane, divided (LOS "D")	2-lane (LOS "D")	4-lane, divided (LOS "B/D")	Ex. 2-lane
Bonita Bridge		14,000 ADT	13,000+ ADT	8,000 ADT + less than 700 ADT	4-lane, undivided (LOS "A")	4-lane, undivided (LOS "A")	2-lane (LOS "B")	Ex. 2-lane
Sweetwater Rd.	Transportation Corridor to Bonita Bridge	17,000 ADT	16,000+ ADT	6,000 ADT + less than 900 ADT	4-lane, undivided (LOS "B")	4-lane, undivided (LOS "B")	2-lane (LOS "A")	Ex. 2-lane

TABLE T-1

CUMULATIVE TRAFFIC IMPACTS (NETWORK 1)

ROADWAY	SECTION	TRAFFIC DEMAND VOLUME			REQUIRED IMPROVEMENT STANDARDS			REMARKS
		TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	
Corral Canyon Rd. (Rutgers)	Telegraph Cyn. Rd. to East "H" St.	12,000 ADT	5,000 ADT	7,000 ADT	4-lane, undivided (LOS "A")	2-lane (LOS "A")	2-lane (LOS "A")	Ex. 4-lane, undivided
	East "H" Street to "unnamed road"	17,000-19,000 ADT	16,000-17,000 ADT	1,000-2,000 ADT	4-lane, undivided (LOS "C")	4-lane, undivided (LOS "C")	2-lane (LOS "A")	2-lanes committed
	"unnamed road" to Central Avenue	5,000-8,000 ADT	4,000-7,000 ADT	3,000 ADT + 1,000 ADT	2-lane (LOS "B")	2-lane (LOS "B")	2-lane (LOS "A")	Ex. 2-lane
Branbywine Avenue	Telegraph Cyn. Rd. to Orange Avenue	22,000-23,000 ADT	20,000-21,000 ADT	1,000-3,000 ADT	4-lane, undivided (LOS "D")	4-lane, undivided (LOS "D")	2-lane (LOS "A")	Ex. 2-lane (portion not planned)
Bonita Avenue	Bonita Bridge & Central Avenue	21,000-27,000 ADT	20,000-25,000 ADT	11,000 ADT + less than 1,200 ADT	4-lane, divided & undivided (LOS "C/D")	4-lane, divided & undivided (LOS "C/D")	4-lane, undivided (LOS "A")	Ex. 2/4 lane
	Central Avenue to Otay Lakes Rd.	28,000 ADT	26,000+ ADT	18,000 ADT + less than 1,400 ADT	4-lane, divided (LOS "C")	4-lane, divided (LOS "C")	4-lane, undivided (LOS "C")	Ex. 4-lane, divided
	Otay Lakes Rd to Sweetwater Rd. (Willow)	37,000 ADT	33,000 ADT	23,000 ADT + 4,000 ADT	6-lane, divided (LOS "B")	4-lane, divided (LOS "D")	4-lane, divided (LOS "C")	Ex. 4-lane, divided
	Sweetwater Rd. (Willow) to I 805	50,000-50,000 ADT	28,000-48,000 ADT	25,000 ADT + less than 1,500 ADT	4-lane, divided & 6-lane, divided (adj. to Plaza Bonita) (LOS "C/D")	4-lane, divided & 6-lane, divided (adj. to Plaza Bonita) (LOS "C/D")	4-lane, divided (LOS "C")	Ex. 4.6-lane, divided

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TABLE T-2
 CUMULATIVE TRAFFIC IMPACTS (NETWORK 2)

ROADWAY	SECTION	TRAFFIC DEMAND VOLUME			REQUIRED IMPROVEMENT STANDARDS			REMARKS
		TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	
Proctor Valley Rd. (former Route 125)	Project to San Miguel Rd.	13,000-14,000 ADT	3,000-4,000 ADT	10,000 ADT	4-lane, undivided (LOS "A")	2-lane (LOS "A")	2-lane (LOS "C")	Ex. 2-lane (portion unpaved)
San Miguel Rd.	Proctor Valley Rd. to Corral Cyn. Rd.	16,000-21,000 ADT	6,000-12,000 ADT	800 ADT + 9,000-10,000 ADT	4-lane, undivided (LOS "D")	2 1/4-lane, undivided (LOS "A")	2-lane (LOS "D")	Ex. 2 1/4-lane
	Corral Cyn. Rd. to Bonita Rd.	29,000 ADT	19,000 ADT	2,500 ADT + 10,000 ADT	4-lane, divided (LOS "C")	4-lane, undivided (LOS "C")	4-lane, undivided (LOS "A")	Ex. 2 1/4-lane
Bonita Bridge		37,000 ADT	28,000 ADT	7,800 ADT + 9,000 ADT	6-lane, divided (LOS "B")	4-lane, divided (LOS "C")	4-lane, undivided (LOS "B")	Ex. 2-lane
Sweetwater Rd.	Bonita Bridge to SR 54	41,000-42,000 ADT	31,000 ADT	6,400 ADT + 9,000-10,000 ADT	6-lane, divided (LOS "C")	4-lane, divided (LOS "D")	4-lane, undivided (LOS "B")	Ex. 2-lane
Corral Cyn. Rd. (Rutgers)	Telegraph Cyn. Rd. to East "I" St.	6,000-8,000 ADT	2,000-6,000 ADT	2,000-4,000 ADT	2-lane (LOS "B")	2-lane (LOS "A")	2-lane (LOS "A")	Ex. 4-lane, undivided
	East "I" St. to "unnamed road"	12,000-13,000 ADT	10,000-11,000 ADT	2,000 ADT	4-lane, undivided (LOS "A")	2-lane (LOS "D")	2-lane (LOS "A")	
	"unnamed road" to Central Ave.	11,000-14,000 ADT	9,000-13,000 ADT	2,800 ADT + 2,000 ADT	2 1/4-lane, undivided (LOS "A")	2 1/4-lane, undivided (LOS "A")	2-lane (LOS "A")	Ex. 2-lane
Brandywine Ave.	Telegraph Cyn. Rd. to Orange Ave.	22,000-28,000 ADT	21,000-23,000 ADT	1,000-5,000 ADT	4-lane, undivided (LOS "D")	4-lane, undivided (LOS "D")	2-lane (LOS "A")	Ex. 2-lane (portion not pioneered)

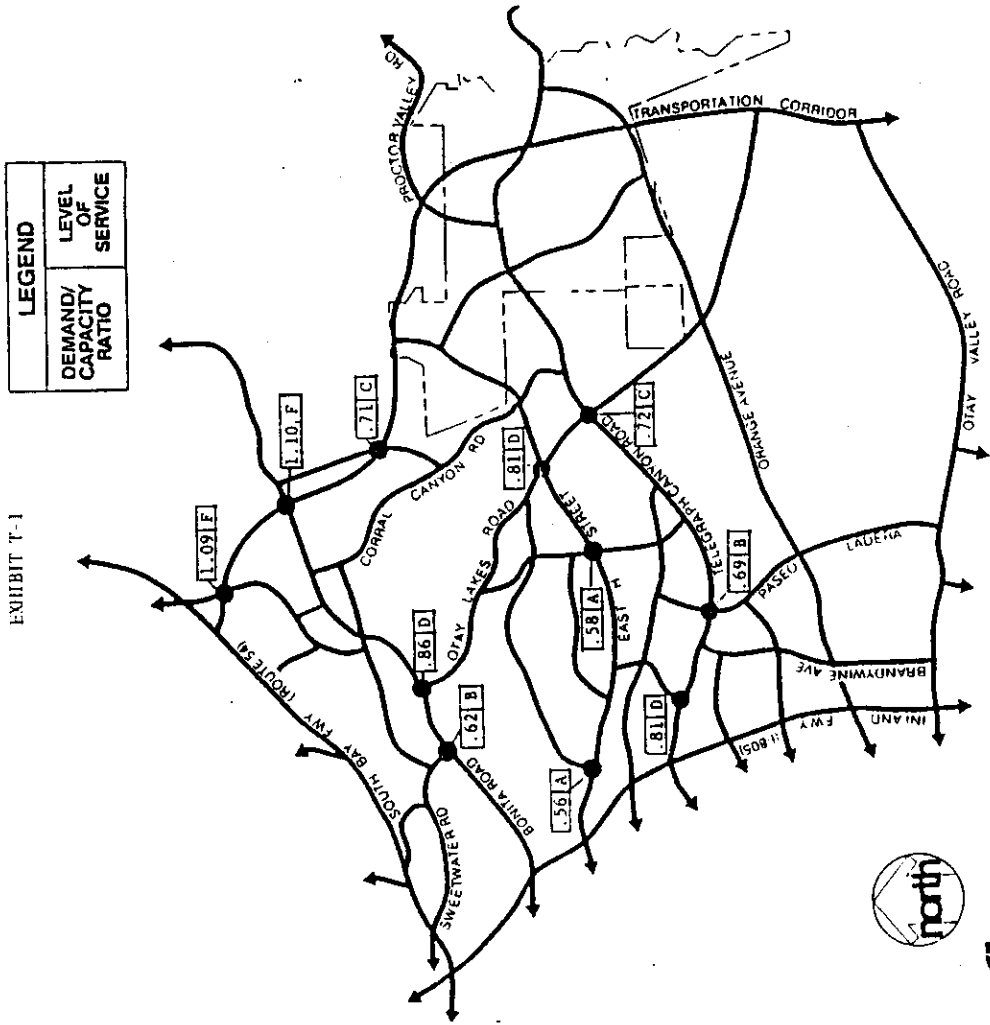
TABLE T-2
 CUMULATIVE TRAFFIC IMPACTS (NETWORK 2)

ROADWAY	SECTION	TRAFFIC DEMAND VOLUME			REQUIRED IMPROVEMENT STANDARDS			REMARKS
		TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	
Bonita Rd.	Bonita Bridge & Central	11,000-17,000 ADT	10,000-16,000 ADT	11,000 ADT + less than 900 ADT	2-lane (LOS "F") & 4-lane, undivided (LOS "A")	2-lane (LOS "D") & 4-lane, undivided (LOS "A")	2-lane (LOS "C")	Ex. 2 1/4-lane
	Central Ave. to Otay Lakes Rd.	26,000 ADT	25,000 ADT	17,700 ADT + 1,300 ADT	4-lane, divided (LOS "B")	4-lane, divided (LOS "B")	4-lane, undivided (LOS "C")	Ex. 4-lane, divided
	Otay Lakes Rd. to Sweetwater Rd. (Willow)	24,000-33,000	21,000-29,000 ADT	23,200 ADT + 3,000-4,000 ADT	4-lane, divided (LOS "B/D")	4-lane, divided (LOS "A/C")	4-lane, divided (LOS "C")	Ex. 4-lane, divided
	Sweetwater Rd. (Willow) to I 805	27,000-48,000 ADT	25,000-46,000 ADT	24,300 ADT + 1,350 ADT	4-lane, divided & 6-lane, divided (adj. to Plaza Bonita) (LOS "C/D")	4-lane, divided & 6-lane, divided (adj. to Plaza Bonita) (LOS "C/D")	4-lane, divided (LOS "B")	Ex. 1 1/2-lane, divided
Telegraph Canyon Rd.	Project to Otay Lakes Rd.	43,000-46,000 ADT	11,000-13,000 ADT	3,500 ADT + 30,000-33,000 ADT	4-lane, divided (LOS "C")	4-lane, undivided (LOS "A")	6-lane, divided (LOS "B")	Ex. 2-lane
	Otay Lakes Rd. to Paseo Ladera	32,000-33,000 ADT	13,000-15,000 ADT	15,400 ADT + 18,000 ADT	4-lane, divided (LOS "D")	4-lane, undivided (LOS "B")	4-lane, divided (LOS "D")	Ex. 2 1/4-lane, divided
	Paseo Ladera to Paseo del Rey	23,000-29,000 ADT	12,000-20,000 ADT	16,000 ADT + 9,000-11,000 ADT	4-lane, divided (LOS "C")	4-lane, undivided (LOS "C")	4-lane, divided (LOS "C")	Ex. 4-lane, divided

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TABLE T-2
 CUMULATIVE TRAFFIC IMPACTS (NETWORK 2)

ROADWAY	SECTION	TRAFFIC DEMAND VOLUME			REQUIRED IMPROVEMENT STANDARDS			REMARKS
		TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	TOTAL, YR. 2000	WITHOUT EASTLAKE	EXISTING PLUS EASTLAKE ONLY	
	Phase 1b-1 Rev to I 805	58,000-47,000 ADT	28,000-39,000 ADT	25,700 ADT + 8,000-10,000 ADT	6-lane, divided (LOS "B/B")	6-lane, divided (LOS "A/B")	6-lane, divided (LOS "B")	Ex. 6-lane, divided



INTERSECTION PEAK HOUR SERVICE LEVELS

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EASTLAKE PLANNED COMMUNITY
DRAFT EIR 81-03

RESPONSE RE SOCIOECONOMIC FACTORS-POPULATION

The Draft Master Environmental Impact Report for EastLake in Section 3.21.1 (commencing on Page 156), discusses the Eastlake Planned Community proposal in the context of the San Diego Association of Government's Regional Population Forecasts. The SANDAG Series V studies predict that by the year 2000, San Diego County will have a population of 2,647,000, a 45-percent increase over the 1980 population figures.

The Draft EIR for EastLake notes a numerical difference between the projected population growth in the project area and that which would occur by virtue of the phased Planned Community development. It also states that,

"Redistribution, or an increase over projected population growth, could have significant impacts associated with the increased growth over current projections, including air quality, traffic, public services and facilities (see Section IV, Growth Inducement, for further discussion)." (EIR, Page 157.)

Our comments are offered to more fully explain the SANDAG Series V projections so that they may be understood in a reasonable context and so that the numerical disparity between the population figures projected for Chula Vista with and without the inclusion of EastLake may be better understood.

The SANDAG (formerly CPD) Series on projected population growth have a valid purpose in providing a data base by which regional plans may be formulated and considered by the various agencies which are members of SANDAG.

Nevertheless, there are limitations in the methodology by which the population growth forecasts are prepared which do not reasonably allow the application of the projected population figures pursuant to SANDAG's analysis for a particular site. Although SANDAG's estimates for Countywide growth have proven accurate, in any individual case they may or may not be an accurate predictive device. In any specific case, their predictions for growth may or may not provide a basis for approval or disapproval of a project, or environmental impacts associated with a project.

For the reasons set forth below, there are considerations which should be kept in mind when judging the effects of a numerical disparity between a SANDAG population projection for a particular area and a proponent's plan.

Several main thoughts must be kept in mind with respect to the Series V projections. They include:

1. The overall intent of the SANDAG study is to predict Countywide population growth and to assess the likely spatial distribution of that growth throughout various areas of the County. Because there is no basis to assume that unpredicted growth in one area may result in an overall numerical increase in Countywide growth, an increase in population in an area not predicted to grow may simply result in a spatial redistribution of growth from one particular area of the County or City to another with no net increase.
2. Predictions that dire consequences will arise from approval of development when it is not projected must be based upon the assumptions that, first, there is an overall increase in the predicted County population growth, and, second, all developments of similar population size are equal in impact upon the region regardless of the design, features, or responsiveness to public facilities needs. Such predictions ignore the need to provide for an in-depth analysis of the merits of the particular development proposed. They also ignore the fact that in the context of regional growth, some projects, due to their features and location, may be more appropriate than others in meeting employment and housing needs.
3. Many external factors affect the accuracy of predicted population growth in the region. The overall economic slowdown facing the nation seems to indicate that it is unlikely the SANDAG Series V projections for population growth will be realized, especially in the context of the City of Chula Vista and its environs. Chula Vista during the years 1980 and 1981 issued 484 residential building permits. As pointed out in the study, two prime components in population growth are (1) employment-related migration and (2) retirement-related migration, both of which are substantially affected by the state of the national economy.
4. The particular predictions for population increase applied to a specific site may be inaccurate due to differences between the various agencies providing input to the SANDAG study, as well as inconsistencies between various plans for the agencies providing input. For example, not all agencies have adopted the SANDAG forecasts. The County of San Diego's approval is notably absent. In addition, one should recognize in the case of EastLake that the population figures for the area have been supplied assuming the development of .3 of a unit per acre, notwithstanding the fact that the City's Land Use Element shows some 700 acres of the site as medium density residential of from 4 to 12 units per acre.
5. For the reasons set forth above, the comment by SANDAG to the Draft EIR noting that "inconsistencies with regional forecasts

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will be so substantial that reasonable measures to mitigate the adverse impacts of premature growth do not seem likely" simply begs the question of the impacts involved. For SANDAG's comment to be accurate, one must assume:

- a. The rest of the San Diego County region on a relative basis will grow as predicted by the SANDAG Series V study, including the balance of Chula Vista;
- b. That Eastlake produces the same types of impacts in the same quantity as other projects upon which various regional studies are based; and
- c. The overall regional growth predictions and the rate of that growth as predicted are accurate.

For the reasons noted above, SANDAG's conclusion that "mitigation would have to be accomplished by a deferral of development in other portions of the South Bay" is a conclusion which should be carefully examined prior to its acceptance.

A more complete discussion of SANDAG Series V regional growth forecasts as they relate to the Draft EIR for Eastlake is included as Appendix SP-P-1 SPAX and made a part of this response.

EASTLAKE PLANNED COMMUNITY
DRAFT EIR 81-03
RESPONSE RE SOCIOECONOMIC FACTORS-FISCAL ANALYSIS

Based on the Eastlake fiscal analysis prepared by Alfred Gobar Associates, Inc. for the City of Chula Vista in the context of the Draft EIR, the proposed Eastlake Planned Community is estimated to provide net revenues and thus a beneficial fiscal impact to the City of Chula Vista. That is, Eastlake represents an advantageous balance of tax revenues and expenditures to the City of Chula Vista and will create, throughout the life of the project, a net fiscal gain to the City. Approval and development of Eastlake will help offset the City's future substantial budget deficits projected at this time and decrease the City's dependence on future State and Federal subventions.

The fact that the proposed project would have a beneficial fiscal impact on the City should not be a surprise. Insuring a better balance of tax revenues and expenditures to the local government is a theoretical advantage of large-scale, planned development well documented in research studies by such highly credible groups such as the Urban Land Institute. With specific reference to the balance of tax rates within the development, the project will about double the assessed value of property within the City of Chula Vista while increasing the population by only 36%. This is key because property tax is the major revenue source for the City and population is the factor typically linked to service costs. Even after the property tax is divided with the County, the per capita property tax received from Eastlake will be 1.9 times that of the existing City. In addition, correspondingly higher sales tax revenue at a higher per capita rate can be expected.

The proposed Eastlake project is not just an increment of the type of development now typical in the City of Chula Vista. It is very different in terms of both economic/demographic factors and public versus private financial solutions. While the former factors are well documented in the Gobar report, the latter factors should also be acknowledged in the analysis. When important aspects of the Eastlake project proposal are acknowledged, substantially increased fiscal benefits to the City of Chula Vista can be identified.

It is important to note here that the annual revenue and cost summary provided as Table 3-14 of the Draft EIR (Page 164) is not taken directly from the Gobar report but rather from a revision of that report's conclusions by City of Chula Vista Staff. Based on a review by CRW's fiscal consultant, we must take issue with the accuracy or reasonableness of certain of the fiscal analysis revisions required by City Staff. Our concerns are briefly itemized below under the appropriate topic.

The fiscal benefit to the City of Chula Vista as presented in the Draft EIR is understated based on the following factors:

12-11-88

REVENUE

1. Property Tax. In the calculation of property tax revenues, City Staff performed a valid revision regarding the source of personal property tax revenues but inadvertently made a major error in recalculating valuations of personal property. It is true that the majority of personal property tax revenue does come from commercial and industrial properties. Unfortunately, the City Staff's recalculation of personal property tax mixes assessed valuation and market valuation (i.e., apples and oranges). Assessed valuation equals approximately one-fourth market valuation. The City's market valuation for commercial/industrial property, \$245,541,000, should be divided into the market valuation of personal property, \$136,610,540 (\$34,152,585 x 4) to get 55.6% versus the 13.9% factor used in the City Staff revision. Table S-1 attached presents the corrected property tax revenue estimate for the EastLake project. Property tax revenues increase by 4.6% or \$92,980

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30m. Clarification noted. Tables 3-14A and 3-14B have been revised to include this information.

2. Real Property Transfer Taxes. Whereas the Gobar report used the City's 1980-81 budget amount for real property transfer taxes as a basis for projecting annual revenues, City Staff revised the basis to directly reflect those taxes actually realized in 1980-81. This presumes that 1980-81 was an "average" year for property transfers. In our opinion, the City Staff revision is overly conservative since it is generally acknowledged that 1980-81 was a "bad year for real estate sales," one of the worst in history. To apply it as a basis for projecting revenues over the 20-year development program for EastLake results in very pessimistic projections - 48% lower than those projected in the Gobar report.

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30n. Comment noted.

COSTS

1. Fire Costs-Capital. The Gobar report (Pages 30-31) assumes that the City of Chula Vista will construct a new fire station in the EastLake area with the debt service for the \$550,000 capital improvement treated as an annual cost to the City of Chula Vista. Based on discussions with City Staff, Cadillac Fairview Homes West anticipates that the provision of a new fire station by the private sector will be a condition of project approvals. The fiscal impact analysis should, therefore, be refined to eliminate the \$57,574 annual cost assumed for "fire costs-capital."

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30o. Tables 3-14A and 3-14B have been revised to reflect this information.

2. Public Works Costs. The Gobar report states that newly developed areas have fewer trees publicly maintained but assumes full costs associated with older areas. With specific reference to Eastlake, all street trees and landscaping within the project are proposed to be maintained privately through an open space maintenance district or community association. Further, the Gobar report assumes that Eastlake streets will require street maintenance equivalent to that

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30p. Comment noted.

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of existing streets within the City and assigns current annual cost factors. Realistically, street maintenance requirements for EastLake streets over the next 20 years will be a fraction of the costs experienced in the older areas of the City. Finally, a street light maintenance district encompassing the EastLake project is anticipated. All of the above factors support the conclusion that public works costs are overstated in a very conservative manner.

5. Parks and Recreation Costs. The fiscal analysis assumes that the City of Chula Vista will provide all parks and recreation services within the EastLake project. Per capita costs associated with existing park and recreation programs are used to project annual EastLake related costs to the City. However, Cadillac Fairview Homes West has proposed to the City that all neighborhood parks and recreational amenity areas within EastLake be privately operated and maintained through one of several forms of private maintenance associations. (A more complete discussion is provided in the EastLake Planned Community White Papers, Volume II, Recreation Program Statement.) Therefore, City parks and recreation costs for EastLake would be limited to those associated with the potential 50 acre City-wide park. Based on that number, a 75% reduction in EastLake-related annual City parks and recreation costs is suggested. Because of the magnitude of the number, and because it directly reflects one of the ways that EastLake is different from the City of Chula Vista norm, the annual cost and revenue summary should be revised accordingly.

Enclosed as Table S-2 is a revised version of Table 3-14 as presented in the Draft EIR (Page 164). Adjustments have been made with regards to "Property Tax-Development of Property," "Fire Costs-Capital" and "Parks and Recreation Costs." Based on those adjustments, net fiscal benefit to the City of Chula Vista will be approximately \$269,542 per year at the end of Phase 1, \$405,156 per year at the end of Phase 2, and \$636,454 per year at the end of the last phase.

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Comment noted. Tables 3-14A and 3-14B have been provided in the EIR text which present Park and Recreation Costs assuming both the use of private maintenance associations and provisions of parks and recreation services by the City of Chula Vista.

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TABLE S-1
PROPERTY TAX REVENUE

Market Value of Project:	End of Phase 1	Annual Revenue End of Phase 2	End of Phase 3
Residential	\$418,438,062	\$18,498,826	\$1,266,517,000
Employment Park	43,050,000	89,250,000	96,000,000
Office	17,000,000	50,700,000	50,700,000
Commercial	8,055,500	14,157,000	14,157,000
Total	\$486,541,562	\$972,605,826	\$1,427,774,000
Personal Property* (in City)	37,865,546	85,683,492	89,770,092
Total	\$524,407,108	\$1,058,289,318	\$1,517,544,092
Assessed Value =	\$131,101,777	\$264,572,330	\$379,386,023
Deduct Current Assessed Value of Property**	1,451,857	1,451,857	1,451,857

Incremental Assessed Value	\$129,649,920	\$265,120,475	\$377,934,166
Net Property Tax Revenue***	\$716,186	\$1,453,477	\$2,087,708

*Estimated as 55.6% of commercial/including land and development valuation.
 **As per 1980-1981 tax bills.
 ***\$0.5521/\$100 assessed value.

Source: Alfred Goblar Associates, Inc.
 City of Chula Vista Planning Department
 Cadillac Fairview Homes West

TABLE S-2
ANNUAL REVENUE AND COST SUMMARY - EASTLAKE FISCAL IMPACT ANALYSIS

Revenues	End of Phase 1	End of Phase 2	End of Phase 3
Property Tax	\$716,186*	\$1,453,477*	\$2,087,708*
Development of Property - Additional Retail in City	2,471	6,089	15,315
Sales Tax	146,455	286,479	443,208
Business License Tax	14,309	34,024	36,255
Utility Users Tax	314,614	674,355	834,125
Franchise Tax	122,983	263,605	326,039
Real Property Transfer Tax	21,456	42,892	62,965
Per Capita - Related Revenue	364,622	731,632	1,101,500
Total Revenue	\$1,703,096*	\$3,492,553*	\$4,907,353*
Costs **			
Police Costs	\$493,117	\$989,462	\$1,488,674
Fire Costs - Operating	249,531	500,697	753,818
Public Works Costs	217,530	441,728	608,111
Parks and Recreation Costs	48,752*	97,824*	147,278*
Library Costs	119,324	239,128	360,469
Overhead Costs	305,500	614,973	911,145
Total Costs	\$1,433,751*	\$2,887,117*	\$4,270,501*
Net Revenue	\$269,342*	\$605,436*	\$636,854*

Source: Alfred Goblar Associates, Inc.
 City of Chula Vista Planning Department
 Cadillac Fairview Homes West

* Numbers revised by CFM per response to Draft EIR 81-03.
 ** Fire costs-Capital deleted by CFM per response to Draft EIR 81-03.

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NUMBER MITIGATION MEASURES

NUMBER MITIGATION MEASURES

LAND USE (PAGES 25-58)

- TU-1 Along the eastern boundary of the project site, open spaces are proposed which would serve as a buffer zone between EastLake and the Otay Reservoir.
- TU-2 Planned Community District Regulations for EastLake, Section IV, Plan Review Requirements, will be used to mitigate site specific impacts and to minimize visual and auidial intrusion on the Lakes area.
(Mitigation measures addressing potential individual environmental impacts due to changes in land use designations are included in each of the appropriate sections herein.)

AGRICULTURAL RESOURCES (PAGES 38-52)

None proposed.

TRAFFIC AND CIRCULATION (PAGES 52-67)

- T-1 The Planned Community District Regulations for EastLake, Section IV, D.9, Public Facilities Plan, provides for implementation of public facilities, including roads needed to support phased development of the project. (See Exhibit "A".)
- T-2 The Planned Community District Regulations for EastLake, Section V, C.4, Right-of-way Reserve, designates a special right-of-way of 140' in width for the highway along Salt Creek. This highway shall be developed with the standards indicated on the General Development Plan, except that the additional right-of-way shall be reserved until 1995 (revised from "five years").
- T-3 The financing of internal circulation system needs of the EastLake project will be provided by the project applicant. External circulation system needs of the EastLake project will be financed in a combination of ways per the following:
- a. The project applicant will improve and/or finance the improvement of Telegraph Canyon Road from the EastLake project to Otay Lakes Road. Improvements will consist of a 6-lane, divided travelway constructed to the standards of the City of Chula Vista. Improvements in addition to travelway needs may be installed subject to City financial participation and/or the execution of reimbursement agreements with adjacent property owners.

- T-3 b. The project applicant will improve and/or finance the widening of Telegraph Canyon Road between Otay Lakes Road and existing 4-lane, divided travelway improvements. Implementation will be in accordance with a 5-year Capital Improvements Program/Schedule established by the City of Chula Vista and will be subject to the execution of reimbursement agreements with adjacent property owners.
- c. The project applicant will participate in a facilities benefit assessment program to provide funds, in combination with possible State transportation funds, for regional public roadway improvements along the proposed north/south transportation corridor between the EastLake project and SR54. The program will be administered by the County of San Diego and City of Chula Vista with assessment amounts collected in an equitable manner from the designated area of benefit. Assessments would be collected as a condition of building permit issuance and based upon a per dwelling unit or acreage development charge. The facilities assessment program would be established prior to or concurrently with recordation of the first subdivision map within the project.

T-4 The City of Chula Vista should consider amending the City's General Plan land use element to reflect the Sweetwater Community Plan adopted by the County of San Diego in 1977, 1979. Cumulative traffic impacts within the study area would be reduced.

T-5 The EastLake Planned Community includes an office and industrial employment center as well as employment opportunities in community and neighborhood commercial centers which will serve to maximize internal trips and minimize internal-external trips.

T-6 The EastLake Planned Community includes a full-range of community support facilities, including commercial centers, recreational facilities, schools, community centers, churches, and parks which will serve to maximize internal trips and minimize internal-external trips.

T-7 The EastLake Planned Community includes a hierarchy of roadways, including the transportation corridor, prime arterials, major arterials, collector arterials, and residential collectors to provide a safe and efficient circulation system for the community.

T-8 The EastLake Planned Community contains an extensive system with primary and secondary bicycle and pedestrian trails, and a more limited system of equestrian trails. At subsequent planning and review levels, the precise design location of these trails shall be determined.

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NUMBER MITIGATION MEASURES

T-9 The proposed roadway system has sized to accommodate expected vehicular traffic volumes and what is reasonably expected as a public transportation demand. Increases in public transit beyond what is currently projected could be accommodated within the roadway system by increasing bus service (frequency or size of busses) along these routes, in conjunction with the corresponding reduction in vehicular traffic. Therefore, the land use and circulation plans are reactive and flexible in terms of meeting changes in public transportation attitudes which may occur in the future.

T-10 In order to provide a focal point for transit services within the community, a transportation center will be developed at a location central to the project. This center could provide a transit information service, drop-off and pick-up points for City and Regional bus routes, telephones for demand-responsive services, and a joint-use parking area for park-and-ride operations.

T-11 An extensive collector system of walkways linking transit stops with nearby residential, commercial, and industrial uses will be developed. An objective of the pedestrian collector system would be to insure that the walk to the stop segments of transit trips are convenient and safe.

T-12 Special bus turnouts will be provided where needed from a traffic/safety and transit standpoint at major potential transit stops. These turnouts would minimize the impact of transit busses upon auto traffic and facilitate bus operations while minimizing impacts to bicycle lanes.

SEWER SERVICES (Pages 68-77)

SS-1 The Planned Community District Regulations for EastLake Section IV.D.8, Utility Service Plan, provides for implementation of utility facilities, including sewers, needed to support phased development of the project. (See Exhibit "A".)

SS-2 The site will be reserved for an onsite reclamation facility within the Salt Creek Tributary Area until such time as a definitive solution for sewer provision to the Salt Creek Tributary Area is reached.

SS-3 The Telegraph Canyon Trunk Sewer monitoring program as outlined on Exhibit "B" will be prepared by the project applicant and approved by the City of Chula Vista as a condition of approval for the first sectional development plan within EastLake.

EASTLAKE PLANNED COMMUNITY
DRAFT EIR 81-03
SUMMARY OF MITIGATION MEASURES

NUMBER MITIGATION MEASURES

SS-4 The project applicant will finance and construct the extension of the existing 15" Telegraph Canyon Trunk Sewer to the EastLake project. This line will be constructed as a part of the improvements necessary for the first final map.

WATER AVAILABILITY (Pages 77-81)

W-1 The Planned Community District Regulations for EastLake Section IV.D.8, Utility Services Plan, provides for implementation of utility facilities including water facilities needed to support phased development of the project. (See Exhibit "A".)

W-2 The project applicant will construct a dual water system to provide reclaimed water for irrigation of open space, parks, and common areas. This will reduce the amount of potable water consumed by the project.

W-3 At more detailed levels of planning, specific water conservation measures will be incorporated into the project. These will include the installation of low-flow faucets and shower heads, low-flush toilets, and the use of drought-resistant plants where appropriate for landscaping within the EastLake community in order to minimize potable consumption.

W-4 The buildout of the project will require the construction of an offsite storage reservoir and related pumps and water mains to the EastLake boundary. These needed O&M facilities will be financed by the project applicant and implemented as conditions of the specific subdivision maps for which their need has been demonstrated.

SCHOOLS (Pages 81-85)

S-1 The project applicant has made a proposal to both the Chula Vista City School District and the Sweetwater Union High School District with respect to school sites and facility financing. An agreement between the individual school district and the project applicant will be entered into which provides for school needs in support of phased development of the project. The agreement will be set prior to approval of the first sectional development plan for EastLake.

POLICE PROTECTION (Pages 85-87)

P-1 Mitigation of the adverse impact in law-enforcement services will be accomplished through additional personnel to the Chula Vista Police force in adequate numbers to effectively serve the EastLake community. This measure is beyond the control of the developer, however, the Police Department anticipates that as development occurs and new residency warrants, additional police would be added to the police force, mitigating, overtime, the expected impact

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of police services to a level of insignificance.

FIRE PROTECTION (Pages 87-89)

F-1 The Planned Community District Regulations for EastLake, Section IV.D.9, Public Facilities Plan, provides for implementation of public facilities, including a fire station, needed to support phased development of the project. (See Exhibit "A".)

F-2 A new fire station will be provided within the project during the first phase of development in order to provide effective protection. The land for the fire station will be located and dedicated as part of the subdivision maps for Phase 1 of the project.

F-3 A secured agreement will be entered into between the project applicant and the City of Chula Vista which provides for construction of the fire station and procurement of the apparatus. The agreement will be entered into prior to the recording of the first final map. A maximum contribution of \$370,000 for the construction of the fire station structure and provision of the necessary fire apparatus and equipment will be provided by the project applicant. The project applicant may elect to construct the fire station structure and contribute \$120,000 to the City of Chula Vista for the provision of necessary fire apparatus and equipment. Fire station standards will be those established for the "Watt project" within El Rancho del Rey.

F-4 The project's water system will be designed to provide sufficient fire flow capacity and pressure based upon the ISO Guide for Determination of Fire Flow and the approval of City of Chula Vista's Fire Department.

ENERGY SUPPLY AND CONSERVATION (Pages 89-94)

F-1 The Planned Community District Regulations for EastLake, Section IV.D.8, Utility Services Plan, provides for implementation of utility facilities, including electrical services facilities, needed to support phased development of the project. (See Exhibit "A".)

F-2 In order to reduce energy consumption attributable to vehicular use, the Eastlake Planned Community has incorporated several features. These are described in detail in the mitigation measures for transportation impacts. The same mitigation measures will serve to reduce energy consumption.

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E-3 The project applicant, in conjunction with SRI International, has received a grant from the US Department of Energy for the purposes of developing energy efficient land development solutions. This study will identify what planning considerations and design features should be included in the sectional planning area plans, the subdivision maps, and the architectural drawings associated with the project.

PARKS AND RECREATIONAL FACILITIES (Pages 94-95)

PR-1 The Planned Community District Regulations for EastLake, Section IV.D.9, Public Facilities Plan, provides for implementation of public facilities, including parks, needed to support phased development of the project. (See Exhibit "A".)

PR-2 The project applicant will develop five 6-acre neighborhood parks and one maximum 30-acre community park within the project. Improvement levels will be consistent with or in excess of City improvement standards and will be subject to City approval. To implement this proposal, the City will exempt the EastLake project from both the City's park dedication fees and Residential Construction Tax.

PR-3 The Planned Community District Regulations for EastLake, Section IV.D.7, Standards for the Recreation, Open Space and Trails Plan, provides for determination of specific areas, uses, ownership and maintenance responsibility for parks and recreation facilities as part of sectional development plan approvals.

OTHER UTILITIES AND SERVICES (Pages 95-97)

Solid Waste Disposal

None proposed.

Telephone Service

None proposed.

Churches

None proposed.

Hospital Services

None proposed.

Paramedic Services

None proposed.

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Library Services

None proposed.

BIOLOGICAL RESOURCES (Pages 97-110)

B-1 The Eastlake Planned Community project incorporates two man-made lakes. Consideration will be given to creating wildlife zones within the two planned man-made lakes.

B-2 The project applicant will be required to obtain a 1603 Permit from the California Department of Fish and Game for any disturbance project applicant will be required to provide mitigation as requested by Fish and Game.

VISUAL RESOURCES (Pages 111-118)

V-1 The Planned Community District Regulations for Eastlake, Section IV.D.4, General Landscape Plans, provides for consideration of visual resource factors in the context of the approval of landscape plans to be submitted within each sectional development area.

V-2 The Planned Community District Regulations for Eastlake, Section IV.D.5, Grading Plans, provides for consideration of visual resource factors in the context of the approval of grading plans to be submitted within each sectional development area.

V-3 The Planned Community District Regulations for Eastlake, Section IV.D.6, Signing Program, provides for consideration of visual resource factors in the context of the approval of signing proposals to be submitted within each sectional development area.

V-4 The Planned Community District Regulations for Eastlake, Section IV.D.8, Conceptual Lighting Plan, provides for consideration of visual resource factors in the context of approval of lighting concept plans to be submitted within each sectional development plan.

V-5 The Planned Community District Regulations, Section IV.D.10, Community Fencing Plan, provides for consideration of visual resource factors in the context of approval of fencing concepts to be submitted within each sectional development plan.

V-6 V.E.1, provides that grading areas identified as natural ungraded areas will remain in a natural state except for minimum intrusion required for infrastructure improvements.

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V-7

The Planned Community District Regulations for Eastlake, Section V.E.2, provides that graded areas will be contoured to blend with natural land form characteristics. Some techniques to be used include: rounding both vertical and horizontal intersections of graded planes, obscuring slope drainage structures with a variety of plant material massing, use of variable slope banks for larger slope banks, and use of landscape planting for erosion control and to obscure man-made slopes.

V-8

General Policies within Section V.E.3 of the Planned Community District Regulations include: (a) Visually significant slope banks should be preserved in their natural state by clustering development; (b) The natural character of the hillside should be retained; (c) Briefly significant rock outcroppings, native plant materials, natural hydrology, and areas of historical or visual significance identified by the Chula Vista General Plan or the EIR will be preserved to the extent practical; (d) Safety against unstable slopes or slopes subject to erosion and deterioration should be provided.

V-9

Steep slopes are protected by preserving them under open space designations or allowing only low density residential development.

V-10

Slopes generally graded at 30% are not proposed for development except where they occur in isolated pockets readily amenable to incorporation with adjacent more gentle terrain.

V-11

The General Development Plan provides for a variety of housing types and arrangements which have been designed to fit the development to the terrain and to preserve major land forms.

V-12

Proposed roads have been aligned in a manner cognizant of natural terrain characteristics in order to minimize necessary cuts and fill requirements.

V-13

The Planned Community District Regulations for Eastlake, Section V.C.3, Scenic Highway Standards, provide that the highways identified on the General Development Plan-Circulation as Scenic Highways shall be reviewed for conformance to the Scenic Highways Element of the General Plan during the plan review process for the applicable Sectional Development Plans. This review should include architectural design and structures, siting of the structures, height of structures, landscaping, signs, and utilities. In connection with any tentative map submitted on properties abutting a scenic route, the applicant shall be required to submit a proposal for beautification of the portion of the scenic route adjacent to

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his development. Each proposal shall consider such factors as: the treatment given to the scenic route outside the boundaries of the particular tentative map area; preservation and enhancement of natural features of the site; creation of a pleasing streetscape with special landscaping techniques and varied building setbacks; and, creation of substantial open areas adjacent to scenic routes through the use of clustering and innovative concepts.

GEOLOGY (Pages 118-124)

The Planned Community District Regulations, Section V.B.1, Geologic Study Area, provide that, prior to approval of a Sectional Development Plan, detailed geologic investigation reports shall be prepared by a registered engineering geologist to determine if geologic hazards exist. Those areas indicated on the General Development Plan-Planning Factors as a Geologic Study Area shall require specific discussions regarding the geologic suitability for proposed land uses, and mitigation measures needed. These reports shall be submitted with the Sectional Development Plan.

All structures will be constructed in full conformance with the Uniform Building Code (Zone IV) and all applicable building and safety code requirements.

SOILS (Pages 125-126)

Mitigation measures V-2 and G-1 also address potential impacts due to adverse soil conditions.

GROUND WATER (Pages 126-127)

None proposed.

SURFACE DRAINAGE (Pages 127-134)

The Planned Community District Regulations for Eastlake, Section V.B.3, Salt Creek Study Area, provide that the area indicated on the General Development Plan-Planning Factors as Salt Creek Study Area shall require a study prepared by qualified professionals indicating the manner in which floodproofing can be accommodated in harmony with visual appearance, and proposed uses in the open space/recreation areas. It shall be the objective of the study to minimize structural solutions to storm drainage requirements. The study shall be submitted with the applicable sectional development plans.

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SD-2 At the time of more detailed design and engineering plans, and prior to approval of each Sectional Development Plan, detailed hydrological analysis will be conducted to determine the size, capacity, alignment, and design of any flood control facility necessary to protect the site from a 50-year storm flow. The studies will also determine any changes in downstream water conditions as a result of these improvements. All facilities will be installed concurrently with development.

SD-3 Where increased runoff could significantly impact downstream drainage facilities which are currently experiencing flooding problems, retention basins shall be constructed onsite to insure that peak runoff discharges from the site, following development do not exceed predevelopment levels.

MINERAL RESOURCES (Page 134)

None proposed.

WATER QUALITY (Pages 135-138)

WQ-1 The Planned Community District Regulations, Section V.B.4, Watershed Protection Zone, provides that the area indicated on the General Development Plan-Planning Factors as the Watershed Protection Zone is so identified to protect the water quality of Upper and Lower Otay Reservoir. A study prepared by qualified professionals indicating the manner in which urban runoff to these reservoirs can be mitigated shall be submitted with the applicable sectional development plans.

CLIMATE/AIR QUALITY (Pages 138-155)

CQ-1 Adequate dust control measures, such as twice per day sprinkling, will be used to control construction-related fugitive dust.

CQ-2 The community is to be phased in a general west-to-east pattern. Since the prevailing winds are west-to-east, this saving will avoid subjecting residents downwind of the new construction to high dust levels.

CQ-3 The proposed onsite circulation system will be phased to insure that adequate roadway capacity is maintained which will prevent congestion and consequently prevent increases in emissions.

CQ-4 The Eastlake Planned Community has been designed to integrate various land uses to promote employment, shopping, schooling, recreation within a few minutes access within the community. This balanced community provides for more efficient travel and traditional "segregated" land use planning, and consequently provides for reduced emissions.

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	(Mitigation measures T-1 through T-12 proposed in transportation and circulation section are designed to encourage alternate methods of transportation and help reduce project-related VMT.)
	(Mitigation E-3 provided in the energy supply conservation section of this summary reflect Cadillac Fairview Homes West's commitment to developing an energy efficient community, and will provide a reduction in energy consumed by the project. This will, in turn, reduce the amount of stationary source emissions.)
	<u>SOCIOECONOMIC FACTORS (Pages 156-165)</u>
	<u>Population</u> (Mitigation measures addressing potential individual environmental impacts are included in each appropriate section.)
	<u>Housing</u> None proposed.
	<u>Employment</u> None proposed.
	<u>Fiscal Analysis</u> With the exception of the proposed community park facility, all open space areas, as well as street landscaping, within Eastlake will be maintained through the use of a combination of an open space maintenance district and private community associations. An open space maintenance district will be formed prior to re-ordination of the first final map.
SF-1	<u>ARCHAEOLOGICAL/HISTORICAL RESOURCES (Pages 165-169)</u> The Planned Community District Regulations for Eastlake, Section V.B.2, Archaeologic Study Area, provides that subsequent archaeological study for sensitive archaeological areas be submitted with applicable sectional development plans. To ensure adequate mitigation of potential adverse impacts to cultural resource sites, a phased data recovery program will be performed for sites SDI-7977, 7197 and 7976. Phase 1: The preliminary test and data recovery phase will consist of: 1) a thorough surface collection of all artifacts at
AI-1	
AI-2	

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	each site including transit or alidade mapping of unique or diagnostic artifacts, 2) subsurface excavation of at least four 1m x 1m test units at SDI-7976, five even 1m x 1m test units at SDI-7197 and two 1.5m x 1.5m test units at SDI-7977.
	Phase 2: The necessity for, and requirements of, a Phase 2 data recovery will be dependent upon the results of the Phase 1 work. If the scientific and cultural data base is exhausted or adequately sampled during Phase 1, mitigation of impacts may be achieved and there will be no necessity for a Phase 2 program. However, if the Phase 1 testing reveals substantial and significant subsurface materials, a more exhaustive data recovery program will be instituted as Phase 2.
	If Phase 2 is required, a thorough and explicit research design will be prepared and reviewed prior to initiation of Phase 2 field work. The research design should clearly state the research goals, method and rationale of sampling, research bias and anticipated contributions to the cultural resource data base and literature.
	Phase 1 and Phase 2, if required, should result in the preparation of a professionally acceptable data recovery report, curation of all recovered artifacts at a local repository and dissemination of the final report to local institutions and archaeological/historical societies.
	<u>PALEONTOLOGICAL RESOURCES (Pages 169-171)</u> To ensure that significant and potentially unique fossils and paleontological resources are not destroyed without examination and analysis, a qualified paleontologist will monitor the initial grading activities in portions of Section 3 and in the Sweetwater Member as it appears in major drainage walls.
	The paleontologist will have the authority to temporarily halt grading in and around exposed areas that contain significant resources. If required, the contractor would cease grading operations for a period of time sufficient to allow for thorough examination, and if necessary, removal of fossil resources. All field notes, photographs and fossil resources should be deposited at a recognized museum or repository.
	<u>NOISE (Pages 171-175)</u> Prior to submittal of each sectional development plan, a detailed noise analysis will be conducted to further refine the expected
PR-1	
N-1	

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noise volumes along all roadways within the sectional planning area. Based on the detailed noise analysis, a detailed acoustical analysis will be conducted prior to site plan review to determine the extent and design of noise attenuation measures to assure that all planned development is in conformance with the City of Chula Vista's noise standards.

Reference is made to the "Planned Community District Regulations for the Planned Community of EastLake as proposed by CFM and formally submitted to the City of Chula Vista on October 30, 1980 in the context of the Zoning Application. In response to Draft EIR 81-03, Cadillac Fairview Homes West proposes to revise "SECTION IV-PLAN REVIEW REQUIREMENTS" as originally proposed to incorporate the expanded Subsection IV.D., "Standards for Sectional Development Plans" as attached and hereby made a part of this response to the Draft EIR. The revised PC regulations proposed to be adopted by the City of Chula Vista as part of the planned community zoning approvals would require the preparation of plans/programs for each sectional development plan which would serve to address and mitigate certain significant environmental effects as identified by the Draft EIR. The City of Chula Vista would thus assure impact mitigation in the context of supplements to the Master EIR prepared for subsequent discretionary project approvals.

SECTION IV.D., STANDARDS FOR SECTIONAL DEVELOPMENT PLANS

1. General: Sectional Development Plans shall include a series of diagrams and supplemental text which provides a specific framework within which individual project site plans can be considered. Following is a list of the basic components required of all Sectional Development Plans. These components may be combined or further broken down into sub-components as appropriate to the area being planned.
 - a. Site Utilization Plan
 - b. General Landscape Plan
 - c. Grading Plan
 - d. Signing Program
 - e. Recreation, Open Space and Trails Plan
 - f. Conceptual Lighting Program
 - g. Public Facility Plan
 - h. Utility Service Plan
 - i. Community Fencing Plan
 - j. Design Concepts
 - k. Special Studies
2. Standards for Plans in General: The following shall be included on all exhibits:
 - a. Title Block which includes: the applicants name, address, and telephone number; the consultant used to prepare the plan if applicable; and the date the plan was prepared, including dated revisions.
 - b. Scale and North Arrow

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- c. The boundaries of the Sectional Planning Area.
 d. The name of this planned community and subcommunity identification.
 e. A reproducible copy of each approved plan shall be provided to the City.

3. Standards for Site Utilization Plans: Site Utilization Plans shall include the following minimum information:

- a. Land Uses including acreages:
 1) Parks and Recreation Areas
 2) Open Space
 3) Schools
 4) Public and quasi-public facilities (include types proposed or permitted)
 5) proposed for each residential area; the net residential density; the character of residential proposed or generic description such as duplex, single family, adult apartments, etc.; and, the residential development standards, such as parking ratios, lot sizes, etc.
 6) Commercial and Industrial uses including general height, size and bulk of buildings proposed.
 b. Existing and proposed easements (identify).
 c. Permanent physical features (e.g., water tanks, transmission towers, drainage channels, etc.)
 d. Existing and proposed streets (this shall include all planned public and private streets with approximate grades and widths of right of ways. The names of existing streets shall be indicated.
 e. Adjacent land uses to the boundary of the plan area. Indicate both existing or planned future uses.
 f. Indication of areas to be subsequently subdivided or for which subsequent site plans shall be provided.

4. Standards for General Landscape Plans: General Landscape Plans shall provide detail guidance for landscape plans submitted with subsequent site plans. The General Landscape Plan for each Sectional Development Plan shall divide the plan area into landscape components such as: various streetscape components; buffer zones; natural areas; riparian corridors; greenbelts, lakes; entry statements, etc. Each of these components will be identified on the plan in an overall context and then further described in supplementary exhibits and text as required.

Each component or landscape zone shall include a Planting Criteria Chart identifying a suggested plant materials list. The general method of continued maintenance for landscaped areas shall also be indicated. Illustrations shall be provided as required for clarifying landscape concepts.

5. Standards for Grading Plans: Preliminary grading plans shall be submitted for the entire SPA and shall include: existing and proposed contours at ten foot intervals; graphic indication for man-made slope bank in excess of ten feet in height; slope ratios for slope banks; and no less than two cross sections of the plan area indicating existing and proposed terrain. Maintenance of slope banks shall be specified. (Note: refer also to Section VI for additional standards for grading.)

6. Standards for the Signing Program: A Signing Program shall be prepared with each Sectional Development Plan. The first Sectional Development Plan shall include in its signing Program the components for the overall community-wide signing. The Signing Program shall include:

- a. Graphic Research: An analysis of the factors which led to the proposed signing or graphic communication shall be described.
 b. Sign Standards: These shall include standards for identification graphics and directional or informational graphics. Various graphic nodes or zones shall be established each with its own graphic standards. Illustrations shall be provided, including approximate dimensions, for all typical signing. Sign standards shall include, but not be limited to: community and neighborhood identity signs; temporary sales and construction signs; special feature identification or directional signs; street signs; commercial, industrial, and apartment signing; and tenant identification signing.

7. Standards for the Recreation, Open Space and Trails Plan: A plan shall be prepared for recreation, open space and trails and shall include:

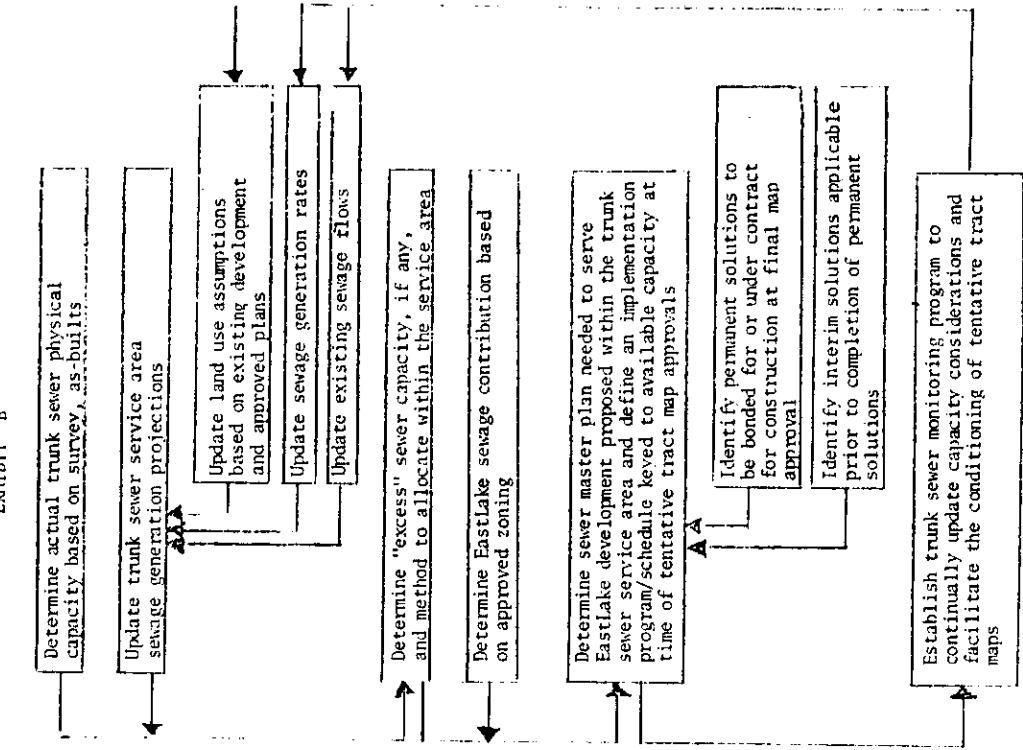
- a. Recreation: Specify acres, proposed uses, ownership, and maintenance responsibility.
 b. Open Space: Specify acres, area to be left in a natural state, proposed uses, ownership, and maintenance responsibility.
 c. Trails: Specify use i.e., equestrian, bike, etc., approximate location, widths, proposed ownership and maintenance responsibility.

8. Standards for the Conceptual Lighting Plan: A conceptual lighting plan shall be submitted which describes the elements of community lighting including lighting for various levels of streetscapes, greenbelt lighting, theme lighting, commercial, recreational, and industrial lighting, theme lighting, sign lighting, and special use lighting. Illustrations of lighting concepts proposed shall be proposed.

9. Standards for the Public Facilities Plan: A public facilities plan shall be submitted which includes the following components:

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EXHIBIT "B"



- a. A plan setting forth the methods and sources of financing for public facilities required to support the phased development of the General Development Plan.
 - b. A development phasing plan setting forth capital improvement program elements and schedules for implementation of public facilities needed to support development of the sectional development plan.
10. Standards for the Utility Service Plan: A utility service plan shall be submitted which includes the approximate location, size, and serving entity for water, sewer, and electrical service.
 11. Standards for the Community Fencing Plan: The various types of fencing to be used in the plan area shall be identified. Illustrations which describe the typical locations of fencing, materials, and height shall be provided.
 12. Standards for Design Concepts: Design concepts shall be submitted as necessary to illustrate the intended community character. These may include special building line regulations, off-street parking provisions, theme establishing architectural styles, landscape design features, energy conservation proposals and any proposed special development standards.
 13. Special Studies: Refer to Section V for requirements.

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APPENDIX SF-P-1

RELATION OF SANDAG SERIES V REGIONAL GROWTH FORECASTS
TO THE EASTLAKE PROJECT

I. PURPOSES OF THE SERIES V STUDY AND ITS UNDERLYING PRESUMPTIONS:

The San Diego Association of Governments, a regional planning agency, has, for a number of years, produced long-range forecasts of regional population growth. The major purpose of SANDAG's Regional Growth Forecasts is that of providing a data base by which the San Diego region as a whole can predict and coordinate efforts to deal with present and future issues associated with growth such as air pollution, water quality and transportation problems, as well as regional housing needs.¹

In the Regional Growth Forecasts, SANDAG, after predicting the overall growth of the San Diego County region, attempts to estimate the most likely spatial distribution of population as the region's population grows. The forecasted population projection for San Diego County is that of 2,647,200 by the year 2000.² Although SANDAG's estimates of regional population increases have proven accurate, the projections have limitations in their ability to accurately forecast the distribution of regional growth in a particular area.

From time to time, a particular development proposal may be measured against a SANDAG Regional Growth Forecast to determine whether or not it is "consistent" or "inconsistent" with that particular Series' projections. The projections themselves may change substantially in a relatively short period of time. For example, the SANDAG Series IV-B projections originally estimated Chula Vista to have a population by the year 1995 of approximately 131,100 people. Those projections have been adjusted in Series V to approximately 113,403.³

In order to fully understand the significance of either "consistency" or "inconsistency" with the projected regional growth projections in a

particular area, one must understand the presumptions involved in the SANDAG Growth Forecasts and their limitations.

As noted above, one of the purposes of the Series V studies, as specifically defined by SANDAG, is to estimate the "likely spatial distribution" of population.⁴ It does not purport to be an accurate indicator in every case of what a spatial distribution of population will be. As noted in a Chula Vista Staff report dated 11/18/80 discussing the Series V projections,

"* * * [T]he distribution of the total to places to live and work is based on the availability and accessibility of developable and redevelopable urban land as reflected in local general plans and policies. In other words, the forecasts for Chula Vista represent the portion of total regional growth which the City and Planning Area are expected to attract based on present local plans and policies. Should these plans or policies change, such as the adoption of a growth management plan, then a greater or lesser share of regional growth would be attracted to our area, and this would be reflected in subsequent biennial forecast updates."

* * *

An extremely important fact to note is that where an area which is shown as not developing does in fact develop, one may not assume that the overall population of the region or sub-area involved will increase beyond the SANDAG projections.

What will more likely occur is a shifting of development from one particular locale to another particular locale within the time frame of the studies involved. This phenomenon occurs primarily because there is a discernible and definable regional real estate market to which particular developments tender their products. The number of units which are built in a particular area are built based upon the available buyers in the particular area as determined by short- and long-range real estate forecasts. Indeed, if a particular housing type or product is deemed by buyers generally to be highly desirable, it will interest a large segment of the housing market at which it is aimed.

Stated in a negative sense, SANDAG notes that restricting housing in one locality does not necessarily mean that the overall County population is

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reduced but merely that demand is shifted from one community to another.⁵ The community to which the demand is shifted by the restrictive policies of one community may or may not be a suitable place for housing needs of the region to be addressed.

II. THE ANTICIPATED SIGNIFICANCE OF NUMERICAL INCONSISTENCY WITH SANDAG SERIES IV-B AND V PROJECTIONS:

The real question that should be asked, however, is not whether or not the population estimated with respect to a particular development proposal is at a particular moment in time consistent or inconsistent with the Series IV-B or V projections, but what adverse effects one might expect from development which is inconsistent, and what beneficial effects might one expect from development which is more or less than that projected in a particular area. As noted above, the primary reason for the preparation of the SANDAG Regional Growth Forecasts is the development of Regional Comprehensive Plan Elements, including the Regional Air Quality Strategy, Area-wide Water Quality Management Plan, Regional Transportation Plan, and Housing Plan Elements.⁶

The Eastlake Draft Environmental Impact Report, while pointing out that Eastlake is numerically inconsistent with the Series V numbers, does not detail any exact adverse impacts anticipated should Eastlake build out with present numerical inconsistency. The reason is clear. First, one must anticipate that in terms of regional impacts, SANDAG Series IV-B, not Series V, is the basis for most regional planning.⁷ Secondly, one cannot easily foresee what impact Eastlake will have in terms of regional planning for several additional reasons:

- a. There is no guarantee that the projected population increases will be in fact realized by the region due to the current economic slowdown taking place.
- b. Even assuming a particular area is built out beyond the numerical estimates for population in that area pursuant to Series IV-B or Series V, there is no showing that the overall regional population growth will be greater than that originally projected, since growth

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in one area may supplant or shift growth in another area.

- c. Most importantly, Series IV-B or Series V, in dealing with potential air pollution and water quality and transportation problems, does not in any way provide a basis for analyzing the appropriateness, quality or environmental sensitivity of one particular project in the region which may supplant another. It essentially assumes that all projects are alike; that all projects use the same amount of energy; that all projects use the same amount of water; that all projects have potentially the same economic burden upon municipal finance and services.

The limitations in the Series V study do not in any way argue against the preparation of such long-range planning studies. They merely point out that some types of long-range studies cannot be used to predict behavior or impacts in a particular case. The impacts associated with a particular project depend entirely upon the nature of that project. To treat all projects alike in terms of regional forecasts of impact and to condemn them by numerical inconsistency alone is a policy which discourages project designs which attempt to address regional needs.

Eastlake as a project is special in that it addresses a number of particular concerns which are normally addressed only at a regional level. One of its chief features is an attempt to create an opportunity for jobs and housing to come together. SANDAG notes that the average commute distance, i.e., the separation between jobs and residences, is increasing rather than decreasing at a time when both energy costs are rising and supplies are diminishing. This pattern is not only wasteful but creates potential air pollution problems as well.

As the proponents of Eastlake, we believe that we should endeavor to work away from traditional "bedroom communities" and provide employment and commercial opportunities which are not linked to traditional commuting patterns and the availability of single-occupant automobiles. The Draft EIR with respect to Eastlake notes that some 58% of the residents in the Eastlake Community who will work will have the opportunity to work within

that area. The degree to which that is realized depends entirely upon the efforts made to ensure the on-site capture of jobs.

Similarly, EastLake, as opposed to most standard projects, may not have the same energy demands as other developments on a per capita basis. Both the EastLake Preliminary Energy Program Statement and the Department of Energy/Argonne National Laboratory's contract to study applied energy conservation techniques speak well of our intent to look forward into the future in an era of diminishing resources. Even though regional plans assume a per capita consumption of electricity and gas, we believe that EastLake will not be average but exceptional in its parsimony with these scarce resources.

As noted in SANDAG's reports, the Series V Forecasts are the primary determinants in attempting to assess how stringent water conservation and air quality tactics must be to meet regional objectives. The Series V report hints at tactics such as transportation disincentives which will be politically unpopular as the only means in the future to achieve significant regional reductions in pollutants. The EastLake program provides the opportunity for jobs and people to come together through incentives rather than politically unpopular disincentives as referred to by SANDAG.

Due to the tax limitations imposed by Proposition 13 and Proposition 4, it is apparent that new and creative methods must be found where municipalities can still afford to provide services to the public. Although SANDAG notes the potential for adverse impacts on Municipal services through funding limitations as the region's population grows, it is not and should not be used as a predictor of an adverse impact in the case of any one particular development. The fiscal analysis performed by Gobar and Associates is a better statement of the balance of the EastLake project than a general comment made by SANDAG in a regional context.

The SANDAG Series V projections provide a valid framework from which questions about the regional significance of EastLake may be presented. The numerical differences in the Series V projections raised by the EastLake proposal beg the question, however. They do not alone provide the answer.

We believe that from the standpoint of impacts, EastLake should not be treated as having all the "standard impacts" on a per capita basis as any other development within the San Diego region, but rather should be judged on its own merits.

III. THE SANDAG SERIES IV-B AND V PROJECTIONS FOR CHULA VISTA AND THEIR CONSISTENCY WITH OTHER CITY PLANS AND POLICIES:

The City of Chula Vista over the last several years has provided inputs to the SANDAG regional population projections, including Series IV-B and V. The Series IV-B forecasts for Chula Vista were substantially in excess of the current Series V projections and by their numbers indicated a willingness to accommodate some 17,697 persons beyond the current Series V projections by the year 1995.

The Series IV-B or V projections for the distribution of growth in a particular locality are generated in part by the information supplied by a local member agency's planners (i.e., City or County Planning Staff) to SANDAG. This is generally done by the preparation of an "assumptions map" by one or more agencies which projects the year at which a particular area will build out and the density that it is expected to achieve in build-out.⁹ Obviously, where the assumptions used do not follow existing City plans and/or for some reason become outdated, the overall projections for population increases in a particular area, as opposed to the San Diego region as a whole, may be rendered inaccurate.

As with many plans and projections, there are often inconsistencies between regional plans and local plans. For example, the northwest area of the EastLake project, which is contained in Phase 1 of the project, and which comprises approximately 700 acres, is currently designated under the Land Use Element of Chula Vista's General Plan as medium density residential of from 4 to 12 units per acre.¹⁰ That designation would allow somewhere between 2800 and 8400 units in that 700-acre area alone. Notwithstanding that statement of policy, however, the SANDAG assumptions map referred to above shows .3 of a unit per acre in this same area because the figures for that area were apparently derived from the County Staff and General

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Plan as opposed to Chula Vista's General Plan Land Use designations.¹¹

Another interesting feature of the SANDAG report is the fact that it highlights two areas of the County as primary for population growth. Those areas are the North County and the South Suburban County. The South Suburban County consists of Imperial Beach, Chula Vista, San Ysidro, and the Otay Mesa. It is projected to have a population growth of 76% by the year 2000, rising in population from 177,000 to 312,000 during that time period.¹²

Of the cities in the South Suburban area, Chula Vista is noted as the only city which has substantial areas of open space available which, due to their locations, may be the subject of intense development pressure due to the area's suitability for both industrial and residential uses.¹³ The SANDAG Series V report seems to highlight the fact that notwithstanding the numbers that may be projected by urban planners, the availability of land resources and rapidly rising population figures may be the ultimate determinant of what occurs within the confines of a particular area.

IV. NATIONAL AND REGIONAL FACTORS MAY AFFECT THE OVERALL COUNTY POPULATION INCREASES:

Although the population projections for the South Suburban area and Chula Vista in particular predict sharp increases in population, the current recessionary climate and its effects upon housing growth cannot be underestimated.

Applying the SANDAG Series V compound annual growth rate to Chula Vista's current population, using 84,000 people as a 1980 base, one would anticipate that Chula Vista would grow to a population of approximately 90,000 (as estimated by Series V) by the year 1985. Nevertheless, the reality of the economic market intrudes. The actual figures derived from the Department of Building and Housing of the City of Chula Vista show that in the year 1980 a total of only 407 new residential units was constructed. In 1981, the housing prospects in Chula Vista appeared even more dismal. Between the months of January and November, 1981, a total of 77

building permits for residential dwelling units was issued.¹⁴ Assuming approximately 2.7 persons resided in each dwelling unit, including the apartment units, only 1099 new persons in fact migrated to Chula Vista and utilized these units in 1980, and approximately 208 persons migrated to Chula Vista in 1981.

The result is that the actual figure for population increase in Chula Vista during the years 1980 and 1981 is approximately 1307 persons, which demonstrates that the prospect of Chula Vista in fact having a population by 1985 of 90,000 is slight because it ignores the current economic realities faced in the San Diego region.

SANDAG and its member agencies, because of their limited ability to provide or fund an in-depth analysis of land use suitabilities, may project growth in an area which will not support growth or in which growth will not occur due to:

- a. Changes in City policies and land use designations with respect to the area;
- b. Physical constraints upon development on the site which are not readily apparent;
- c. Economic constraints which restrict development generally, such as our current money market; or
- d. The desires of the property owners simply not to seek development of their property.

V. SUMMARY:

The Series V studies, unfortunately, do not provide guidance at the local level for how projects may be designed and implemented to reduce or mitigate impacts. New development, whether in small increments or Planned Community, which ultimately embraces an area the size of the Eastlake proposal will obviously have regional impacts and significance.

We believe the most productive response to the share of regional growth represented by Eastlake is to work cooperatively to reduce local and regional impacts as much as possible in a positive manner.

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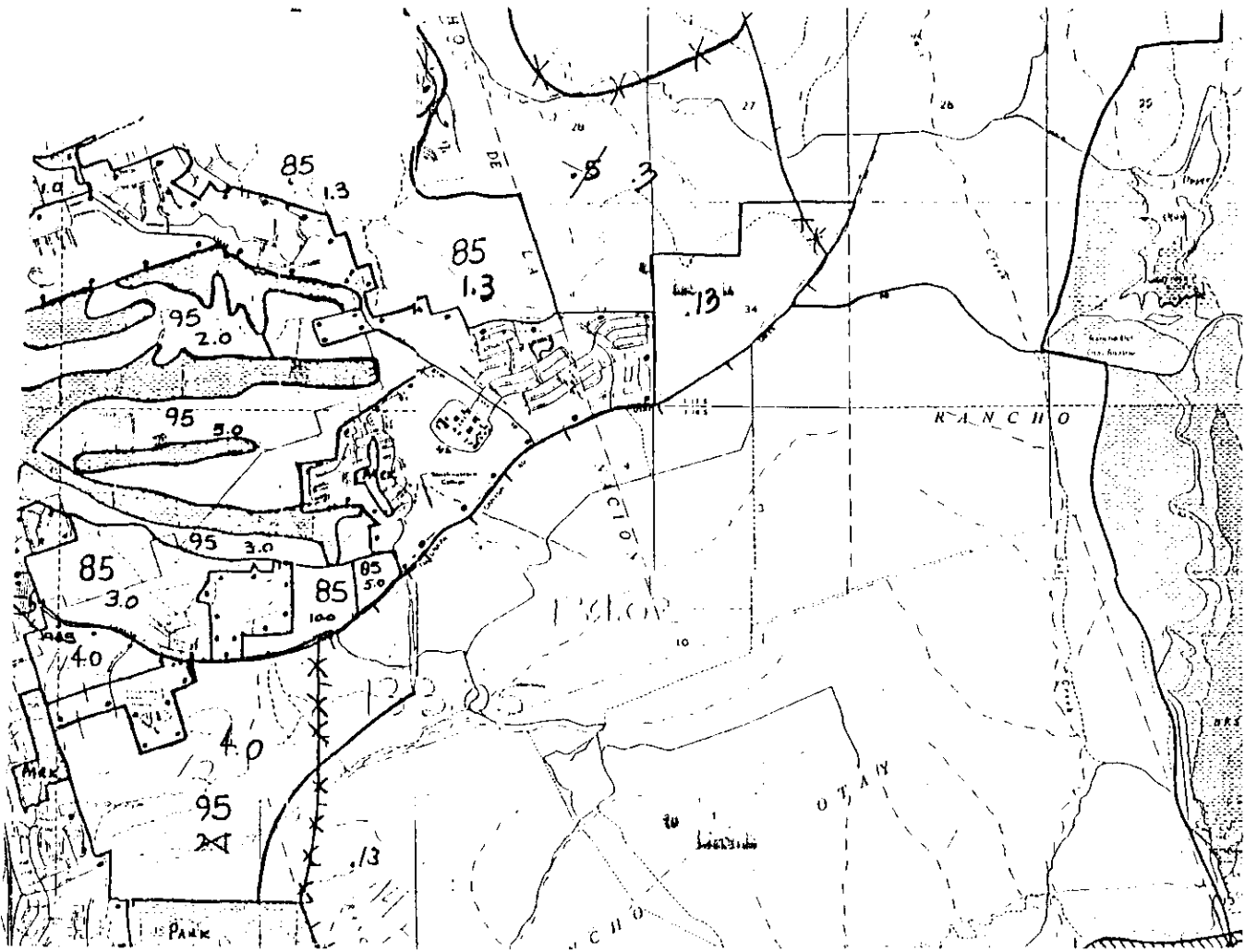
EXCERPT FROM SANDAG
FINAL SERIES V
REGIONAL DEVELOPMENT FORECASTS
1978-2000

CITY	: CHULA VISTA				CHANGE, 1978-2000	
	1978	1985	1995	2000	NUMERIC	PERCENT
TOTAL POPULATION	78446	90282	113403	118572	40126	51.15%
HOUSEHOLD POPULATION	77700	88995	111739	116729	39029	50.23%
GROUP QUARTERS POPULATION	746	1287	1664	1843	1097	147.05%
OCCUPIED HOUSING UNITS	28541	33438	44262	47743	19202	67.28%
SINGLE FAMILY UNITS	18730	19892	23465	21598	2868	15.31%
MULTIPLE FAMILY UNITS	9811	13546	20797	26145	16334	166.49%
PERCENT SINGLE FAMILY	65.6	59.5	53.0	45.2		
HOUSEHOLD SIZE	2.7	2.7	2.5	2.4		
TOTAL CIVILIAN EMPLOYMENT	27437	31092	36176	38882	11445	41.71%
BASIC EMPLOYMENT	8292	9041	9869	10314	2022	24.38%
LOCAL SERVING EMPLOYMENT	19145	22051	26307	28568	9423	49.22%
TOTAL ACREAGE	11278	11278	11278	11278		
TOTAL DEVELOPED ACREAGE	7345	8423	9904	9924	2579	35.11%
RESIDENTIAL ACREAGE	5102	5968	7386	7199	2097	41.10%
BASIC ACREAGE	294	361	364	364	70	23.81%
LOCAL SERVING ACREAGE	1184	1487	1890	2074	890	75.17%
VACANT ACREAGE	3933	2855	1374	1354	-2379	-60.57%
DEVELOPABLE	2869	1791	310	290	-2579	-89.89%
UNUSABLE	1064	1064	1064	1064	0	0.00%
GROSS RESIDENTIAL DENSITY	5.6	5.6	6.0	6.6		
GROSS EMPLOYMENT DENSITY	18.6	16.8	16.0	15.9		

FOOTNOTES

1. Comprehensive Plan for the San Diego Region, Volume 10, Series V, Regional Growth Forecasts, dated June, 1981, San Diego Association of Governments, hereinafter "Series V", Page 3.
2. Series V, Page 9.
3. Series V, Forecasts for Chula Vista (attached); CPO (now SANDAG) Series IV, Regional Growth Forecasts (attached);
4. Series V, Page 4.
5. Series V, Page 43.
6. Series V, Page 3.
7. Id.
8. Draft EIR, Planned Community of EastLake, dated October, 1981, Page 36.
9. See attached portion of assumptions map from SANDAG, courtesy of Karen Lamphere, Demographer.
10. Draft EIR for EastLake Planned Community, Figure 3-2, Page 30.
11. Information supplied from SANDAG, courtesy of Karen Lamphere.
12. Series V, Pages 14-15 (attached).
13. Id.
14. Information re permit issuance courtesy of Eugene J. Grady, Department of Building and Housing, City of Chula Vista.

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(EXCERPT FROM CPO [SANDAG] SERIES IV)

TABLE 5
REGIONAL GROWTH FORECASTS

Total Population by City and Unincorporated Areas
1977-95

JURISDICTION	January 1977	1985	1995
SAN DIEGO COUNTY			
Carlsbad	23,300	36,300	54,400
Chula Vista	78,000	97,100 ²	131,100 ²
Coronado	22,900	25,900	26,400
Del Mar	4,900	5,600	5,800
El Cajon	64,800	75,000	80,000
Escondido	53,800	67,400	77,500
Imperial Beach	20,200	21,300	22,700
La Mesa	53,200 ³	54,900	62,000
Lemon Grove	46,600	24,900	30,000
National City	62,100	47,700	48,400
Oceanside	78,100	78,100	102,000
San Diego ⁴	797,200	931,700	1,048,800
Central	110,300	117,400	137,500
Coastal	161,300	169,000	176,400
Eastern	258,700	307,200	318,900
Kearny Mesa	153,500	162,000	182,700
North San Diego	67,800	96,700	162,700
South San Diego	45,600	59,400	70,500
San Marcos	12,100	22,900	34,400
Unincorporated	387,400	503,500 ^{5,6}	686,500 ^{5,6}
RIVERSIDE COUNTY⁶	6,200	8,900	12,500
TOTAL COUNTY:	1,663,000	2,041,300	2,472,700

¹For suburbs, see City of San Diego Boundaries map.
²Population for the Rios Canyon area has been included within the City of Chula Vista.
³Data adjusted to reflect California State Auditor's estimate of 1977 population in recently annexed areas.
⁴Data adjusted to reflect community planning goals for the unincorporated area.
⁵Projections are for the approximately 550 square miles of Riverside County which lie within the Santa Margarita Watershed (prepared by the Riverside County Planning Department and approved by the Riverside County Board of Supervisors.)

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to about half that of dwelling unit growth. This trend is being experienced not only locally (the same situation occurs in nearly all areas of the region) but nationally as well.

North City (MSA 1)

The North City area contains Del Mar, a large portion of the City of San Diego, and the newly incorporated City of Poway. Growth in this area is expected to be 53% over the forecast period, from 421,200 in 1978 to 646,400 in 2000.

Del Mar, as a result of its small land area and lack of vacant land, actually shows a slight decline in population from 1978 to 2000. The number of housing units shows a small increase, which is offset by smaller family and household sizes.

The portions of the City of San Diego falling within the North City boundaries which show large increases in population are University (70%), Mira Mesa (172%), including the future development of North City West), North San Diego (269%), including the western portion of the I-15 corridor), and Elliot-Navajo (31%).

The Coastal area, including Pacific Beach and La Jolla, is forecast to grow by only 5% through 2000. Kearny Mesa is expected to grow by the same amount but will continue to be a major employment center for the region. Population at Miramar is expected to remain at about 3,600.

Poway, incorporated December 1, 1980, is currently forecast to double in population by the end of the century, from 30,900 in 1978 to 60,900 in 2000. Employment will triple in that time. Forecast assumptions about land use policies and development staging in Poway were prepared by County of San Diego staff and based on the unincorporated Community Plan. Poway's City Council has not reviewed or acted upon the forecasts. Changes in land use policy that Poway makes while developing its General Plan will be reflected in Series VI.

The employment picture in the North City area has long been and will continue to be good. Kearny Mesa, Sorrento Valley, and Miramar Road all provide a large number of jobs, primarily in the industrial sector. North City had 27.2% of the region's employment in 1978 and will have 29% by 2000. This percentage of the region's employment is exceeded only by Central San Diego (38% in 1978, 52% in 2000).

South Suburban (MSA 2)

The South Suburban area consists of Imperial Beach, Chula Vista, the southernmost portion of the City of San Diego and the unincorporated community of Otay.

Population in the South Suburban area is projected to increase from 177,000 in 1978 to 312,300 in 2000. (76%). Employment will nearly double (from 44,900 in 1978 to 85,900 in 2000), and the area's share of total regional employment will increase slightly, from 7% in 1978 to 8% in 2000.

Imperial Beach, which has very little vacant land, is projected to grow by 7,700 people. The fact that it is adjacent to the rapidly growing areas of Chula Vista and Otay makes it attractive for growth. As a result, private redevelopment is occurring and expected to continue to do so, replacing single family housing units with attached rental and ownership units.

Chula Vista, the only South Suburban city with large amounts of vacant land, is forecast to experience significant growth: 40,000 people are projected to be added to Chula Vista's population, mostly in the eastern, presently undeveloped part of the city. Like most other South Suburban and Central San Diego cities, Chula Vista will also experience considerable private redevelopment. Being surrounded by densely populated communities to the north and a burgeoning area to the south, Chula Vista has emerged as a prime location for both residential and industrial development. A change in public policy to permit subdivision development east of I-805 before the year 1995 has added to Chula Vista's growth potential.

All of the South Bay communities will become more attractive through the 1980's and '90's as they represent a major portion of an ever diminishing supply of developable land close to the employment centers of Central City San Diego and the bay front industrial areas.

South San Diego, with a 1978 population of 48,000 will grow to 102,200 by the end of the century. Two major plans of the City are influencing this growth: the Otay Mesa East Community Plan, a large residential development, and the construction of the Brown Field Industrial Park.

The unincorporated area of Otay is forecast to have the highest percentage rate of growth in the South Suburban MSA. With a 1978 population of under a thousand, the projection for 2000 is 12,000. While some growth will occur in the 1978-1985 period, most of the development will come on-line in the 1985-1995 period.

East Suburban (MSA 3)

The East Suburban area is forecast to grow at about the same rate as the region as a whole (2.1% vs 2.0% per year, respectively).

Four cities lie within the East Suburban area: La Mesa, Lemon Grove, El Cajon, and Santee. All of the cities except Santee contain limited amounts of vacant land available for development, at least within current city boundaries. Most of the growth in the East Suburban area will occur in the unincorporated community of Valle de Oro.

La Mesa will see an increase in population of about 14%, from 49,900 in 1978 to 56,800 in 2000. While generally considered a bedroom community, La Mesa has and is projected to maintain a good jobs-to-resident ratio. Most of those jobs are local serving (retail, government, professional services) rather than industrial in nature.

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EXHIBIT "C"
EASTLAKE PLANNED COMMUNITY
MITIGATION MEASURES

As provided in the General Development Plan text, a grading plan will be submitted with each sectional development plan for review and approval by the City. This will encourage proper City review of all proposed grading plans, in conjunction with land use plans, to assure that the plans meet the recommendations of the geotechnical study and all City ordinances. All grading operations will be subject to Chapter 15.04 of the Chula Vista Municipal Code.

Prior to approval of a sectional development plan, a complete geotechnical investigation will be conducted for the sectional planning area. All of the conclusions and recommendations of this investigation will be incorporated into the land use plan and the engineering and architectural design of the project. The investigation will be comprised of studies which include subsurface exploration, sampling and testing of materials, slope stability analyses, and preparation of grading specifications.

These studies will evaluate the bedrock structure, establish the relationship of groundwater conditions to grading and slope stability, define areas where slope buttressing may be required and provide buttress designs, define areas of soil removal and recompaction, provide criteria for treatment of the probable expansive slopewash soils; define subdrain requirements, and provide recommendations for seismic design.

The studies will further investigate the possibility of onsite faulting, the potential for landsliding, the extent and nature of the claystone beds subject to high shrink/swell behavior, the potential for liquefaction in areas of alluvial soils, and the degree of consolidation in recent alluvial deposits.

All structures will be constructed in full conformance with the Uniform Building Code (Zone IV) and all applicable building and safety code requirements.

At the time of more detailed design and engineering plans, and prior to approval of each sectional development plan, detailed hydrological analyses will be conducted to determine the size, capacity, alignment, and design of any flood control facilities necessary to protect the site from a 50-year storm flow. The studies will also determine any changes in downstream water conditions as a result of these improvements. All facilities will be installed concurrent with development.

For the Salt Creek area, the Planned Community District Regulations for the EastLake Planned Community provide that "a study (will be) prepared by qualified professionals indicating the manner in which floodproofing can be accommodated in harmony with visual appearance, and proposed uses

in the open space/recreation areas. It shall be the objective of the study to minimize structural solutions to the storm drainage requirements... (and) shall be submitted with the applicable Sectional Development Plans." (Page 15, PCDR)

A complete erosion control program will be prepared and approved prior to issuance of a grading permit to minimize the potential for erosion created during development. This program should include provisions for immediate planting of vegetation on all exposed slopes, temporary sedimentation basins, and a watering and compaction program. Special care will be taken to provide a system which will totally eliminate the potential for increased sedimentation into the Otay Lakes.

The Planned Community District Regulations for Eastlake provide for a watershed protection zone (Page 15, PCDR) which consists of the area draining into the Otay Reservoirs. It has been so identified to protect the water quality of the two water bodies. It requires that a study be prepared by qualified professionals to determine the best method in which urban runoff to these reservoirs can be mitigated. The study shall be submitted with the applicable sectional development plans and will be incorporated into the design of the project.

One method of protecting the water quality of the Otay Lakes has been studied by Cadillac Fairview Homes West and its engineering consultant, Rick Engineering. Under this method, drainage from the proposed area of development would be diverted away from the reservoir. As a minimum requirement, all runoff from a 10-year frequency storm would be diverted. This "first" flush would carry the accumulated contaminants described above. Runoff from greater-frequency storms would be relatively free of contaminants and would be allowed to drain into the lakes.

It is recognized that any diversion of drainage will require a waiver and release of liability from all downstream property owners from the point of diversion to the point of confluence.

Prior to submittal of a sectional development plan, test-level archaeological investigations will be conducted for any of the identified archaeological sites within the sectional development areas. The investigation will include surface collection and mapping of the sites and excavation of a series of pits. Please refer to Page 25 of the archaeological records search and field survey (APC, 1980) for more specific study parameters.

The results of these test-level investigations will be a final determination of the significance and research potential of the sites. Based on these findings, final mitigation measures will be developed. Such measures could consist of recommendations for preservation, salvage excavation of a representative portion of the site, and/or clearance for development.

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greater than 45 CNEL. Since specific plans have not yet been proposed for this site, the indoor/outdoor noise reduction requirements cannot yet be determined. The required noise reduction will depend on the strategies selected for exterior noise reductions (e.g., sound barriers) architectural details of the buildings, and orientation of the individual units.

Southern California dwellings with windows closed easily produce a 25-27 dB indoor/outdoor attenuation for highway noise. The data presented in Table L indicates that 66 CNEL is the worst-case exposure without any barrier considerations and siting the buildings directly adjacent to the roadways. Designing the buildings to achieve 22 dB attenuation will reduce interior noise levels to 45 CNEL. Such a building design is easily realized, given the energy insulation requirements.

At the time of building permit application, the architectural plans will be reviewed to ensure that interior noise levels do not exceed 45 CNEL. If additional attenuation is necessary, measures (increases in window glass thickness, reduction of window area, and/or location of window away from roadways) can be specified at that time.

In conjunction with the erosion control plan, the project applicant will utilize adequate dust control measures to control construction-related fugitive dust.

The applicant will prepare a detailed analysis of the specific opportunities for use of solar energy within EastLake. This analysis will include climatic conditions, topography, siting and orientation factors, design limitations of the use of solar energy, and cost-effectiveness of solar energy. This study will identify what design features should be included in the SIPs, the subdivision maps, and the architectural drawings.

The project applicant will reserve a site within the project in a suitable location and of sufficient size to meet the Fire Department's need for an onsite substation.

The project's water system will be designed to provide sufficient fire flow capacity and pressure based on the ISO Guide for Determination of Fire Flow and the approval of the City of Chula Vista's Fire Department.

The project applicant will be required to obtain a 1605 permit from the California Department of Fish and Game for any disturbance to streams (including reservoirs) under its jurisdiction. The applicant will be required to provide mitigation as requested by Fish and Game.

As discussed above under "Impacts," the project incorporates two man-made lakes within the design of the Planned Community. Although this will not totally mitigate the impact on localized wildlife associated with the loss of riparian/marsh habitat, it will provide an alternate habitat for a portion of the species which currently utilize the lost habitat. Careful design of the lake can encourage its use by a wide variety of wildlife.

The proposed circulation plan for EastLake (Figure 4) designates Orange Avenue, Telegraph Canyon Road, East "H" Street, and the 116-foot Right-of-Way Reserve Corridor as Scenic Highways. The Planned Community District Regulations require that the sectional development plan be revised for conformance to the Scenic Highways Element. In addition, for all tentative maps submitted on properties abutting a scenic route, the applicant will be required to submit a proposal for beautification of the portion of scenic highway adjacent to the subject property. Refer to Section V.C.3 of the EastLake Planned Community District Regulations on file with the City of Chula Vista.

At subsequent planning and review stages, programs for phasing, funding, and implementation of the roadway system shall be formulated.

At subsequent planning and review levels, the geometrics of all intersections shall be carefully reviewed. Particular attention shall be given to those intersections identified as operating below Level of Service C.

In order to provide a focal point for transit services within the community, a transportation center is envisioned at the proposed Civic Plaza location. This center could include a transit information service, drop-off and pick-up points for City and regional bus routes, telephones for demand-responsive services, and a joint-use parking area for park-and-ride operations.

Prior to submittal of each sectional development plan, a more detailed noise analysis will be conducted to further refine the expected noise volumes along all roadways within the sectional planning area.

Based on the detailed noise analysis required in Mitigation Measure #35, a detailed acoustical analysis will be conducted prior to site plan review to determine the extent and design of noise attenuation measures to assure that all planned development is in conformance with the City of Chula Vista's noise standards.

The California State Noise Insulation Standards and the City of Chula Vista require that interior noise levels for residential units be no

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EASTLAKE
FINAL ENVIRONMENTAL IMPACT REPORT
VOLUME 3
APPENDICES

City of Chula Vista Case Number: EIR 81-03
State Clearinghouse Number: 80121007

Prepared for:

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

Prepared by:

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

DRAFT
October 1981

FINAL
February 1982

RECEIVED

BY.....

FEB 23 1982

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

R-119/8
APPROVED
1-29-85

PREFACE

This three volume document comprises the Final EIR for the General Plan Amendment, rezoning and General Development Plan, and annexation for the Planned Community of EastLake. A Notice of Preparation was circulated in January 1981, and an Environmental Constraints Inventory was prepared for the project site. Subsequently, a Draft EIR was completed for the proposed project and circulated for public review. The Draft EIR text was revised in several areas to address concerns raised during the public review period. The revised EIR text comprises Volume 1 of the Final EIR. Volume 2 contains the comments received on the Draft EIR and the responses to those comments. Volume 3 contains the technical appendices to the EIR, including a supplemental traffic analysis completed during the public review period. Additional information regarding the project, including an Environmental Data Base, White papers, and other technical reports prepared by the applicant, are available for review at the City of Chula Vista Planning Department.

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<u>Appendix</u>	<u>Title</u>
A	Biological Survey Report
B	Air Quality Analysis
C	East Chula Vista Traffic and Impact Study
D	Fiscal Efficiency Analysis

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EASTLAKE DRAFT
ENVIRONMENTAL IMPACT REPORT

City of Chula Vista Case Number: EIR 81-03
State Clearinghouse Number: 80121007

APPENDIX A
BIOLOGICAL SURVEY REPORT

Prepared By:

WESTEC Services, Inc.
3211 Fifth Avenue
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APPENDIX A
BIOLOGICAL SURVEY REPORT

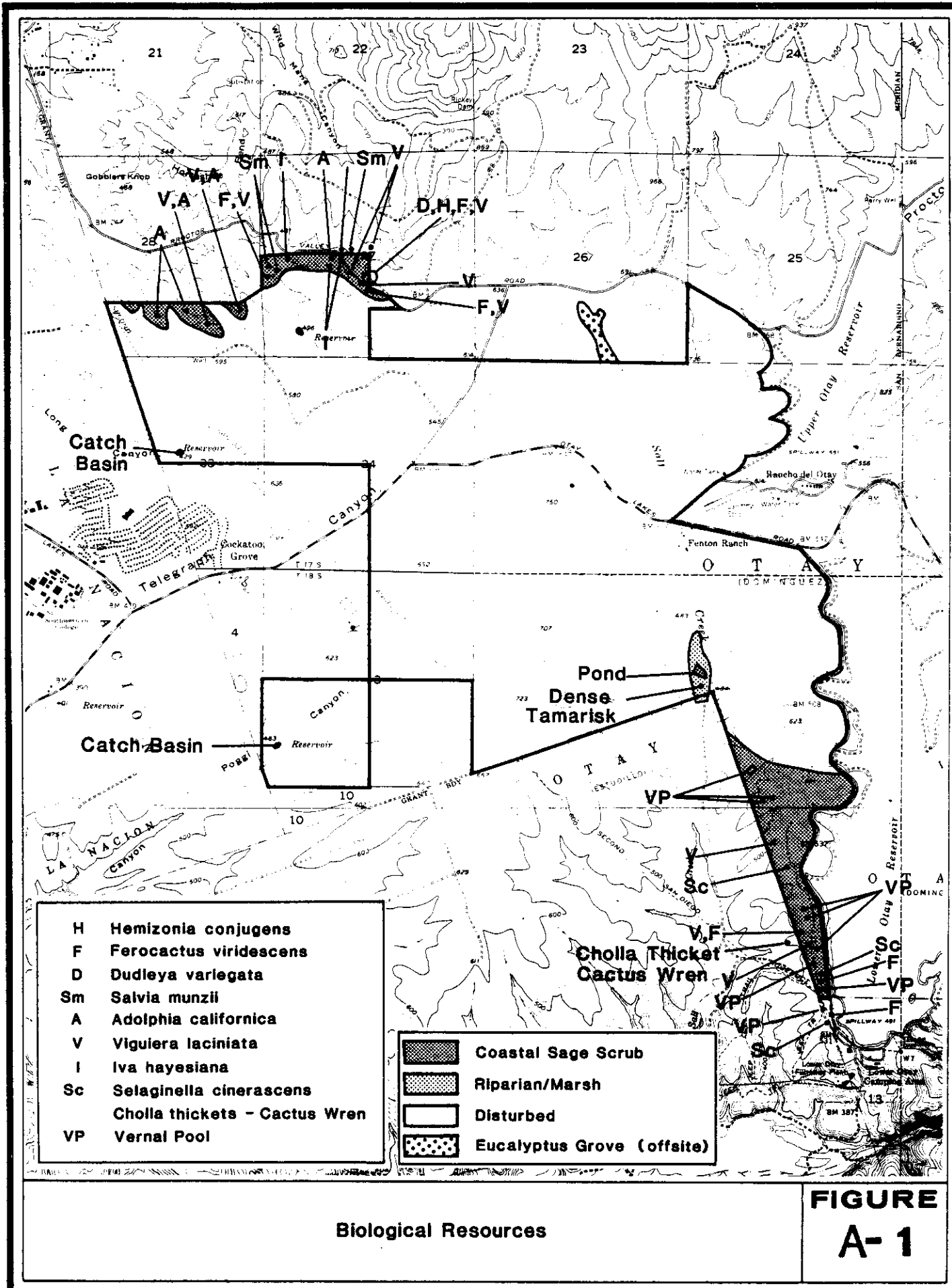
The biological resources of the EastLake project area have been previously evaluated by WESTEC Services, Inc. as part of the Jamacha Basin Wastewater Reclamation Project Phase II Expansion (WESTEC Services, 1980), followup field work associated with the expansion of the wastewater reclamation project to include all of the EastLake (Janal Ranch) property, and as part of the Miguel to Tijuana Interconnection Project (WESTEC Services, 1979). The study area was recently overviewed by Larry Seeman and Associates (1980) and the northwest corner of the area was previously studied by Beauchamp and Rieger (1976) as part of the Bonita Miguel Master Plan. Selected portions of the study area were most recently walked over by Stephen Lacy, WESTEC Services' biologist, on October 2, 1980, February 12, 1981 and March 13, 1981.

Given that the majority of the study area is cultivated, biological evaluations were concentrated or focused within the remaining natural areas. Walkover examinations of all the natural areas were conducted, plant and animal species recorded and habitats mapped. Particular attention was given to identifying the presence or absence of high interest species and habitats. High interest biological features are herein considered plant or animal species of rare, threatened or endangered status, depleted or declining species and habitat types of unique or limited distribution or special consideration (i.e. Resource Conservation Area). No extensive small mammal trapping or vegetative transect sampling was conducted. Nomenclature follows Munz (1974) for plants, A.O.U. (1957, as revised) for birds, Stebbins (1966) for reptiles and amphibians, and Jones et al. (1975) for mammals.

Vegetation

The great majority of the study area is regularly plowed and dry farmed for barley. This is an historical land use. An estimated 2458 acres (80 percent) of the property is cultivated. The remaining acreage includes ruderal, riparian woodland, freshwater marsh, low scrub, and vernal pool habitats. These habitats are discussed below and delineated on Figure A-1.

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**FIGURE
A-1**

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

Riparian woodland and freshwater marsh vegetative communities (Thorne, 1976) are present at a singular locality within the project area. An earthen dam creates a pond estimated at about 1.5 acres within the intermittent Salt Creek drainage. This pond which is very shallow is bordered by riparian and marsh elements. Riparian woodland is limited about the pond being represented by less than ten willows (Salix lasinadra) and a single Fremont cottonwood (Populus fremontii). The dam is thickly covered by mule fat (Baccharis glutinosa). A band or zone of marsh surrounds the east and west sides of the pond and extends up the Salt Creek drainage for a short distance. The marsh is made up of cat-tail (Typha sp.), bulrush (Scirpus sp.), cocklebur (Xanthium strumarium var. canadense), smartweed (Polygonum lapathifolium), and bur-head (Echinodorus cordifolius). The area below the dam and extending about 400 feet south to the property line is a heavily wooded area which is not typical local riparian habitat. It consists of tamarisk (Tamarix sp.), spiny rush (Juncus acutus var. sphaerocarpus), mule fat, and a few phoenix palms. This habitat does not extend south offsite where grazing pressure has probably precluded its development. Likewise the pond/riparian/marsh habitat does not extend up the Salt Creek drainage giving way to agricultural pressures. There is no natural habitat buffer about this wetland complex.

Four additional catch basins are present throughout the project area but due to a variety of factors including recent structural modifications, cultivation, and heavy grazing pressure, they do not support any developed riparian or marsh habitat.

The low scrub habitat remaining onsite is southern coastal sage scrub (Thorne, 1976). Thorne (1976) divides this community into three phases. That phase present in the study area is inland sage scrub. This phase is distinguished from the more coastal phases in being less rich in species numbers due to the hotter and drier conditions prevailing inland away from the moderating influence of the ocean. Low scrub vegetation along

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the immediate coast of San Diego and generally south of National City takes on a character more in keeping with vegetation further south in Baja California. This vegetative cover is called maritime desert scrub (Thorne, 1976) and is dominated by spine-scent and succulent plants. This distinctive coastal scrub association has also been called coastal sage succulent scrub (Mooney, 1977). This type of vegetation is generally found closer to the coast on headlands and sea bluffs. This vegetation integrades into other communities or phases of low scrub inland. The interpretation of whether a particular habitat is maritime sage scrub or inland sage scrub is somewhat subjective, especially as far inland as the subject property. MSA (1979) chose to interpret a portion of the low scrub habitat on the project site adjacent to the west as maritime desert scrub. Portions of the low scrub vegetation in the northwest corner of the property have vegetative elements normally associated with maritime desert scrub or coastal sage succulent scrub but the vegetative cover as a whole does not fit the description. Low scrub vegetation in the northwestern corner of the project area, except in steep-sloped situations, is relatively open and appears to be heavily grazed. Dominant species are California sagebrush (Artemisia californica) and California buckwheat (Eriogonum fasciculatum). Additional less common constituents include San Diego sunflower (Viguiera laciniata), coast cholla (Opuntia prolifera), and coastal prickly pear (Opuntia littoralis). Larger shrubs such as laurel sumac (Rhus laurina) and lemonadeberry (Rhus integrifolia) are uncommon in this area.

Low scrub in the southeastern panhandle portion of the study area is as previously described. The vegetation is denser in the southern aspect of the area as it is not grazed and Viguiera laciniata is a more common constituent of the cover. In the northern limits of this area the vegetation is sparser and appears to be successional because of previous plowing.

The vernal pool ephemeral (Thorne, 1976) vegetative community occupies small depressions on the mesa top of the panhandle portion of the subject property. These depressions fill with rainwater which does not drain off or percolate away due to topography and silt conditions. These pools exist as highly specialized plant habitat and support a unique succession of plant species distinct from that of the surrounding area (Purer, 1939). These pools remain delimited within the mesa top vegetation and weedy adventitious species and surrounding vegetative types do not obliterate or greatly trespass their margins. Five vernal pools were identified in October in their dry cycle. These

pools vary from relatively smooth to cobbly bottoms. Pool areas were estimated by pacing to vary between 60 to 250 square feet. All the pools were very shallow. Vernal pool species observed onsite include dwarf woolly heads (Psilocarphus brevissimus), grass-poly (Lythrum chyssoifolia), rabbitfoot grass (Polypogon monspeliensis), and hair-grass (Deschampsia danthonioides).

Wildlife

Given that the great 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 very 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, given time, a majority of the wildlife species normally associated with the coastal plain and lower foothills of the San Diego Region. Major wildlife habitats generally lacking within the project area (chaparral, aquatic) are well-developed immediately adjacent to the north and east.

Due to limitations in sampling time, many species were not directly observed because of seasonality or merely the secretive nocturnal nature of many of the species which inhabit the region. Extensive species lists of "expected" species were not developed; rather, those species which were either observed within the study area or which are noteworthy are discussed.

Birds: Avifauna is usually the most easily observed wildlife element in most faunal investigations. Species are usually reflective of a particular habitat type. Within the cultivated or disturbed habitats and generally open habitats, observed species include Western Meadowlark (Sturnella neglecta), Horned Lark (Eremophila alpestris), Lark Sparrow (Chondestes grammacus), Mourning Dove (Zenaida macroura), House Sparrow (Passer domesticus), Cassin's Kingbird (Tyrannus vociferus), Western Kingbird (Tyrannus verticalis), Starling (Sturnus vulgaris), House Finch (Carpodacus mexicanus), Loggerhead Shrike (Lanius ludovicianus), and Burrowing Owl (Athene cunicularia).

Species observed which tend to be found in native low scrub habitat include California Quail (Lophortyx californicus), Brown Towhee (Pipilo fuscus), Black-tailed Gnatcatcher

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(Polioptila melanura californica), Anna's Hummingbird (Calypte anna), Rufous-crowned Sparrow (Aimophila ruficeps), Phainopepla (Phainopepla nitens), Sage Sparrow (Amphispiza belli), and Roadrunner (Geococcyx californianus).

A species observed in close association with dense thickets of cactus is the Cactus Wren (Camphylorhynchus brunneicapillus). Species not observed but likely to occur in riparian habitat is the Lesser Goldfinch (Carduelis psaltria).

In addition to the above species, many of which interchange freely between habitat types, a group of species are normally observed overhead. These include Cliff Swallows (Petrochelidon pyrrhonota), Common Crow (Corvus brachyrhynchos), Common Raven (Corvus corax) and the raptorial species. Raptors observed in the area include White-tailed Kite (Elanus leucurus), American Kestrel (Falco sparverius), Red-tailed Hawk (Buteo jamaicensis), Marsh Hawk (Circus cyaneus), and Golden Eagle (Aquila chrysaetos). No raptor nests were observed within the study area. A large isolated eucalyptus grove located adjacent and north of the project area is undoubtedly used by a variety of raptors for perching.

Mammals: Mammals observed during the field survey include the ubiquitous California ground squirrel (Spermophilus beecheyi), the common desert cottontail (Sylvilagus audubonii), and the common black-tailed jack rabbit (Lepus californicus). Indirect evidence (scat, tracks, nests, burrows) was noted for 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 shunk (Spilogale putoris), raccoon (Procyon lotor), long-tailed weasel (Mustela frenata), bobcat (Felis rufus), and Virginia opossum (Didelphis virginiana) would be expected.

Reptiles and Amphibians: Reptiles observed either on the subject property or on adjacent similar habitat include the ubiquitous western fence lizard (Sceloporus occidentalis), coastal rosy boa (Lichanura trivirgata ssp. roseofusca), common kingsnake (Lampropeltis getulus 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). Due to the temporary presence

of water in the three small catch basins on the property a variety of toads and frogs may be present in the area in the spring. Vernal pools presence within the study area are also utilized as breeding sites for amphibian species.

High Interest Species/Habitats

High interest species are those plants and animals which are considered to be rare and/or endangered, threatened, of depleted or declining status, blue-listed, endemic, or of unique or limited distribution. These species may be officially listed by the federal or state governments, currently under status review by wildlife agencies, recommended or nominated for official listing by knowledgeable experts, or noted as potential nominees for listing due to containing habitat losses caused primarily by human pressures (urbanization, agriculture, off-road activity). The following high interest species were observed on or were previously recorded for the project area. They are listed along with pertinent data (status, distribution within the area, and range) and, in the case of plant species, their rarity-endangerment code as established by the California Native Plant Society (CNPS, 1980). Table A-1 gives an explanation of the CNPS code.

Sensitive habitats are those which are considered rare within the region, are listed by the Conservation Element of the San Diego County General Plan (San Diego County, 1980), support high species diversity, or are identified as Resource Conservation Areas (RCA) by the County of San Diego (1980).

Rare and Endangered Plant Species:

Hemizonia conjugens Keck.

Otay Tarweed

Proposed for listing by USFWS (1980) as endangered by CDFG (1979)

CNPS: 3-3-2-2

Annual herb known only from southwestern San Diego County. Found on mesas and among low scrub. It is relatively common just north of the northwestern corner of the study area. Occurs along one of the property lines (WESTEC, 1980) but was not observed elsewhere onsite possibly due to offseason sampling period.

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Table A-1

CALIFORNIA NATIVE PLANT SOCIETY RARITY-ENDANGERMENT CODE

Rarity (R)

1. Rare, of limited distribution, but distributed widely enough that potential for extinction or extirpation is apparently low at present.
2. Occurrence confined to several populations or one extended population.
3. Occurs in such small numbers that it is seldom reported; or occurs in one or very few highly restricted populations.

P.E. Possibly extinct or extirpated.

Endangerment (E)

1. Not endangered.
2. Endangered in part.
3. Totally endangered.

Vigor (V)

1. Stable or increasing.
2. Declining.
3. Approaching extinction or extirpation.

General Distribution (D)

1. Not rare outside California.
2. Rare outside California.
3. Endemic to California.

Ferocactus viridescens (Nutt.) Britton & Rose.
San Diego Barrel Cactus, Coast Barrel Cactus
Proposed for listing by the USFWS (1980). No CDFG
status.

CNPS: 1-2-2-1

Small barrel cactus found on mesas and arid south-facing slopes. Species is found from roughly Rancho Bernardo south along the coastal plain into northern Baja California. One hundred eight specimens counted in the panhandle portion of the property, 113 counted south of Proctor Valley Road, and at least 100 specimens north of Proctor Valley Road.

Dudleya variegata (Wats.) Moran.

Variegated Dudleya, San Diego Hasseanthus
Proposed for listing by USFWS (1980). Under status
review by CDF&G.

CNPS: 1-2-2-2

Perennial herb; a small succulent with vernal leaves. Species is present in dry stony places. Species range includes southwestern San Diego County and northern Baja California. Species recorded north of Proctor Valley Road both on and offsite also offsite south of the panhandle. May occur elsewhere onsite but not observed due to offseason sampling period.

Salvia munzii Epl.

Munz Sage

No federal or state status.

CNPS: 2-1-1-1

Low shrub which is patchy in its distribution in the study area. Fifty-five specimens found just south of Proctor Valley Road in the northwest portion of the study area. It is found at a number of locations adjacent to the northwestern corner of the property, being relatively common where it is present. Species is known from Dictionary Hill, San Miguel Mountain, Jamul Mountains, San Ysidro Mountains, and northern Baja California.

Adophia californica Wats.

California Adolphia

No federal or state status

CNPS: 1-2-1-1

Low spiny shrub found sparingly (estimated 36 specimens) in low scrub vegetation in the northernmost portion of study area just south of Proctor Valley Road. Species is naturally found in washes in southwest San Diego County and northern Baja California.

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Viguiera laciniata Gray.

San Diego Sunflower

No federal or state status

CNPS: 1-2-1-1

Small shrub found primarily on arid south-facing slopes throughout native low scrub habitat. Species is more common in panhandle portion of study area but generally not well-developed onsite. Species ranges from Mission Valley south into northern Baja California and eastward to Potrero.

Selaginella cinerascens A.A.Eat.

Mesa Club-Moss

No federal or state status

CNPS: 1-2-1-1

Species forms an ashen carpet on mesa tops between low scrub in southwestern San Diego County and northern Baja California. Species is common in panhandle portion of project.

Iva hayesiana Gray

Southern Poverty Weed

No federal or state status

CNPS: 1-1-1-1

Low scrub found along drainages and washes in the northwestern section of the study area. Species range includes southwestern San Diego County and Baja California.

Additional plant species considered to rare which have been recorded for the general area of the subject property but which were not observed are as follows:

Arctostaphylos otayensis Otay Manzanita

Calamagrostis densa Dense Reed Grass

Chamaebatia australis Mountain-Misery

Lepechinia ganderi Pitcher Sage

Satureja chandleri San Miguel Savory

Cupressus guadalupensis ssp. forbesii Tecate Cypress

These species are found at relatively higher elevations and further east within chaparral habitat on San Miguel Mountain, and in the Jamul and San Ysidro Mountains.

Stipa diegoensis San Diego Stipa

This species was found on a ridge north of the study area (WESTEC Services, 1980) and is recorded further east in Proctor Valley.

Ambrosia chenopodiifolia San Diego Bur-Sage

Bergerocactus emoryi Coast Button Cactus

Dichondra occidentalis Pony Feet

Opuntia parryi var. serpentina Snake Cholla

These species are found primarily nearer to the coast. Dichondra occidentalis is a perennial herb which was not observed during the sampling period.

Astragalus deanei Dean's Locoweed

Haplopappus junceus Rush Goldenbush

These species are found in coastal foothills generally more inland than the study corridor.

Acanthomintha ilicifolia San Diego Thornmint

Broadiaea orcuttii Orcutt Broadiaea

Eryngium aristulatum var. parishii San Diego Coyote
Thistle

Muilla clevelandii San Diego Golden Star

Myosurus minimus var. aspus Mousetail

Navarettia fossalis

Ophioglossum lusitanicum spp. californicum Adder's
Tongue-Fern

Orcuttia californica California Orcuttia

Pogogyne nudiusecula Loma Alta Pogogyne

These species are usually found either within or in association with vernal pools. Acanthomintha ilicifolia and Muilla clevelandii are also found in heavy clay soils.

Artemisia palmeri Palmer Sagebrush

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This species is found in sandy coastal drainages and is expected to be found along the Otay River and its tributary canyons.

Rare and Endangered Animal Species:

No rare, endangered or threatened animal species as listed by the U.S. Fish and Wildlife Service (USFWS, 1979) or the California Department of Fish and Game (CDFG, 1980a) were observed in the study area. The American Peregrine Falcon (Falco peregrinus anatum) and the Southern Bald Eagle (Haliaceetus leucocephalus leucocephalus), listed as endangered by both the USFWS and the CDFG, are expected to be transients in the study area. They do not nest in the survey area.

Least Bell's vireo, Vireo bellii pusillus, a small bird with a strong preference for riparian habitat, was recently recommended by Remsen (1977) for inclusion on the state and federal endangered species lists. Remsen in 1977 noted that as few as 24 breeding pairs may remain of a species which once was a common to abundant bird in suitable habitat in the interior valleys and along southern coastal areas of California. Remsen (1977) concludes that "... the decline of this once common small bird is unparalleled in the history of California ornithology." The dramatic decline of this species is attributed in part to the reduction of suitable riparian breeding habitat but primarily to cowbird (Molothrus ater) parasitism. Such data led the California Department of Fish and Game to study the situation (Goldwasser, 1978). That study estimated 89 territorial males or pairs in seven Southern California counties and its conclusion recommended endangered status for the species. 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 could be attracted to the wetland area on Salt Creek. Species was recently listed as endangered by the California's Department of Fish and Game (1980a).

Although not officially designated by the California Department of Fish and Game, the orange-throated whiptail lizard, Cnemidophorus hyperythrus beldingi, was recommended as early as 1971 for listing as a rare subspecies (Bury, 1971). This small lizard prefers areas of sparse and variable vegetation, and would be expected in the rocky sandy drainages throughout the project area. This form occurs from Laguna Beach and the

vicinity of Riverside and San Jacinto southwest of the mountains to northern Baja California.

Another bird species not officially listed as a rare species, the cactus wren (Campylorhynchus brunneicapillus) of the San Diego region, is considered one of the most severely threatened of all local species (Rea, 1981). Dr. Armadeo Rea of the San Diego Museum of Natural History is in the process of formally describing the local population of the cactus wren as a unique subspecies. Formerly considered a disjunct element of the desert population of this species, it has for some time been considered locally rare by ornithologists of the San Diego area. Two individuals and at least four of this species distinctive nests were observed in a draw about 2000 feet north of the Otay River and nests were observed in coast cholla just adjacent to the fence line along the panhandle portion of the site. In addition a number of nests were observed in a dense thicket of cholla in a canyon in the northwestern corner of the site.

Sensitive Habitats:

Riparian woodland and freshwater marsh are rare habitats within San Diego County. Combined they occupied only 0.2 percent of County acreage in 1963 (CDG&G, 1965). This percentage has undoubtedly decreased during the past 16 years. For these reasons the County of San Diego encourages the conservation of these habitats (County of San Diego, 1980).

Coastal sage scrub is relatively common in the region. This habitat was estimated to cover 13.4 percent of the County acreage in 1963 (CDFG, 1965), the third most extensive habitat type behind chaparral and low desert. Recent growth of both urban development and agriculture in the coastal foothills and along the coastal plain has greatly reduced this habitat type. Oberbauer (1979) has suggested that up to 70 percent of this habitat in San Diego County has been lost or modified. As such, a number of bird and reptile species closely associated with this habitat are now considered rare or declining.

Vernal pools are rare and unique vegetative habitats. They contain a number of high interest plant species, some of which were mentioned above, and provide temporary breeding pools for amphibians. A ciliate protozoan (Systylis hoffi) was recently discovered in vernal pools on Kearny Mesa (Cox, 1978). It was the first known locality for

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this rare species in the United States and only the fourth known worldwide. Vernal pools once covered areas of what now is Linda Vista, East San Diego, Kearny Mesa, and the community of Mira Mesa. Vernal pools occur in San Marcos in very limited quantity, and they are relatively common on portions of Otay Mesa and on flat mesas from Tierrasanta to the north rim of Los Penasquitos Canyon. The great majority of these pools are in danger of being eliminated in the near future due to urbanization. Vernal pools are also found in southern Riverside County (Santa Rosa Plateau) and the Central Valley region of California. It has been estimated that more than 90 percent of the original vernal pool habitat within the San Diego region has been eliminated (Beauchamp, 1979).

The U.S. Army Corps of Engineers claims jurisdiction over vernal pools because they are considered to be isolated wetlands. Under the Corps' jurisdiction, a nationwide permit exists to fill isolated wetlands not impacting rare and endangered species. Unless or until a specific preservation plan was implemented to assure the preservation of rare and endangered species, the Corps took the position that each project impacting vernal pools be reviewed and a 404 Construction Permit issued when it was satisfied that the critical habitat was not impaired. This was necessarily a long process requiring consultation with the U.S. Fish and Wildlife Service when a rare and endangered species is involved.

In July of 1979, the City of San Diego agreed to develop a vernal pool preservation program so that vernal pools and their associated rare plants could be protected and preserved while allowing for the orderly development of the region. The City of San Diego's "Vernal Pool Preservation Program" was delivered to the Corps for their approval in March 1980 (City of San Diego, 1980). The plan was approved by the Corps of Engineers and adopted by the City Council on June 17, 1980.

The vernal pools onsite were not evaluated by the biological committee which made recommendations to the City in developing their preservation plan (Balko, 1979). On a comparative basis the panhandle pools would be judged to be of low relative value based on the low number of pools present, the apparent lack of sensitive plant taxa, and the lack of pool structural diversity. Verification of the lack of high interest species would have to be done in the spring. Subsequent findings could affect the rating of this small group of pools. The City Preservation Plan (City of San Diego, 1980) notes that

570 acres of vernal pool habitat are under County of San Diego jurisdiction. This includes 65 acres of City-owned land east of Lower Otay Lake of which 35 will be preserved by the City. The majority of the County pools occur on Otay Mesa.

A number of sensitive habitat designations have been applied to surrounding properties. These include Resource Conservation Area (RCA) 16 as per the Sweetwater Community Plan and the San Miguel Jamul Mountains, Otay Mountain, and Northern Miguel Mountain RCAs of the Otay subregion planning area. Otay Mountain to the southeast is listed as significant natural area by the California Natural Areas Coordinating Council (Hood, 1977) and a large portion of Otay Mountain is under consideration for wilderness status (BLM, 1979). Upper and Lower Otay Reservoirs are adjacent to the property on the east.

Species of Depleted or Declining Status

A depleted faunal species is one that, although still occurring in adequate numbers for survival, has been heavily depleted and continues to decline at a rate which gives cause for concern. Two such species in addition to the above mentioned orange-throated whiptail lizard which would be expected to be present in remaining natural areas based on range and habitat preference are:

Phrynosoma coronatum blainvillei

Coast Horned Lizard

Species observed just north of Otay River drainage.
Species expected in the open brushland areas of the property.

Thamnophis couchi hammondi

Two-Striped Garter Snake

Not observed during the survey. May be expected along the Otay River and about the Salt Creek wetland.

The Audubon Blue List contains avifaunal species which are presently giving indications of non-cyclical population declines in all or parts of their range, but are not now of sufficient rarity to be considered endangered (Tate, 1980). Avifaunal species which appear on the Blue List of 1981 and are thought to be declining in the San Diego region (Everett, 1979) which were either observed on or are expected to utilize habitats within or adjacent to the project area are as follows:

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Ammodramus savannarum

Grasshopper Sparrow

Single individual observed singing in the grassland south of the Otay River drainage. Species is restricted to suitable open grassland for nesting and foraging.

Athene cunicularia

Burrowing Owl

Two individuals observed along Proctor Valley Road just west of the study area and two individuals observed along Wueste Road just east of the study area. Species requires open areas for nesting and foraging. Species is not uncommon on Otay Mesa.

Circus cyaneus

Marsh Hawk

Single sightings of low this flying raptor in the northern, central and southern portions of the study area. Hunts over open fields and grassland and nests in fresh or saltwater marsh habitats.

Accipiter cooperii

Cooper's Hawk

Species not observed during study period. This woodland hawk would be expected to be seen in the Otay River and Salt Creek drainages.

Empidonax traillii

Willow Flycatcher

Not observed during survey period. A common migrant. Local nesting population may be extirpated (Everett, 1979). Would be expected in the riparian habitat within the Otay River drainage. Decline suspected due to cowbird parasitism.

Dendroica petechia

Yellow Warbler

Species not observed during study period. May be expected within riparian woodland habitat in Otay River drainage. Decline suspected to be due to reduction in riparian habitat and cowbird parasitism.

Additional bird species which are considered noticeably declining as breeding species locally (Everett, 1979) and would be expected to utilize the study area, but which were not Blue-Listed for 1981 include:

Cathartes aura

Turkey Vulture

Not observed during survey period. The local breeding population may have been extirpated (Everett, 1979). No breeding has been recorded in the County since 1970.

Polioptila melanura californica

Black-Tailed Gnatcatcher

Species observed in native low scrub habitat just north and south of the Otay River. Species decline suspected due to reduction of coastal plain coastal sage scrub and possibly cowbird parasitism. Less than 1500 pairs are estimated to remain in the United States (Atwood, 1980).

Remsen (1977) developed a "species of special concern list" which prioritizes bird species which face danger of extirpation in California. He lists species as highest, second or lowest priority depending on the immediacy of the situation. Species in the highest priority category face immediate extirpation if current trends continue, and in several cases, extirpation has already occurred. Species in the second priority category are definitely on the decline, but populations are still sufficiently substantial that the danger is not immediate. Species in the lowest priority category are not in any present danger of extirpation and their populations within most of their range do not appear to be declining; however, simply by virtue of their very small populations in California, they are potentially vulnerable to extirpation should a threat to their populations materialize.

Least Bell's vireo is considered to be a highest priority species (Remsen, 1977). Five species observed or expected onsite are listed as second priority species - Burrowing Owl, Cooper's Hawk, Black-tailed Gnatcatcher, Willow Flycatcher, and Yellow Warbler. The single lowest priority species observed within the area is the Golden Eagle (Aquila chrysaetos). This species is fully protected by the California Department of Fish and Game (CDFG, 1980b). Single sightings of golden eagles were made north and south of the Otay River and in the northeastern corner of the site.

An additional fully protected bird species (CDFG, 1980b), the white-tailed kite (Elanus leucurus), is expected to hunt throughout the area and adjacent open space. This species, thought to be nearing extinction prior to 1940, had made a notable comeback and is now a relatively common raptor in coastal southern California.

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The resident coastal subspecies of Sage Sparrow (Amphispiza belli belli) is also considered to be severely restricted locally in distribution and numbers (Rea, 1981). This species could be found in the native low scrub habitat onsite.

Species of Endemic, Unique or Limited Distribution

Hemizonia conjugens is the only species observed within the study corridor which is endemic to (found only in) San Diego County. A number of observed species are considered northern limitaries (Beauchamp, 1972). The range of these species extends northward from Baja California only into San Diego County in the United States. Northern limitaries observed within the study area include Iva hayesiana, Viguiera laciniata, Ferocactus viridescens, Dudleya variegata, Salvia munzii, and Adolphia californica.

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EASTLAKE DRAFT
ENVIRONMENTAL IMPACT REPORT

City of Chula Vista Case Number: EIR 81-03
State Clearinghouse Number: 80121007

APPENDIX B

AIR QUALITY ANALYSIS
EASTLAKE PLANNED COMMUNITY

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WESTEC/Chula Vista Air Quality Study

I. Introduction

II. Setting

- A. Meteorology
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III. Air Quality Impacts

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 - 1. Construction Phase Impacts (1993)
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Summary of Air Quality Impacts

Of the three project phases considered, construction, operation and the combined construction/operation periods, the highest level of all pollutants (except for total suspended particulates) would occur during the operation phase (1999). Total suspended particulate levels would be higher during the combined construction/operation phase (1996), largely due to fugitive dust emissions. Combined construction/operation activities would result in the second highest levels of THC, NO_x, SO_x and CO. Construction in 1993 would result in a relatively low amount of emissions when compared with the other two phases.

The primary impacts resulting from the proposed Eastlake development would be that of NO₂ emitted from light-duty vehicles during peak hour traffic. Computer simulation modeling has indicated that maximum short-term NO₂ concentrations would exceed 550 $\mu\text{g}/\text{m}^3$ at a distance 10 meters from the road. Considering the state NO₂ hourly standard of 470 $\mu\text{g}/\text{m}^3$, it is evident that this level would be exceeded. In addition, the number of vehicles generated by the proposed project may be considered as inconsistent with certain tactics in the Regional Air Quality Strategy (RAQS), which are intended to reduce the number of vehicle-miles traveled. Vehicular emissions are not expected to result in a significant increase in ambient THC, SO₂, CO or TSP levels. Also, emissions from stationary sources in the project, once operational, would not have a significant adverse impact on regional ambient air quality levels.

In summary, the key air quality issue associated with the proposed Eastlake development is related to vehicles. The project would generate a relatively large number of vehicles which may result in a violation of the hourly NO₂ ambient air quality standard at a localized level in peak hour traffic under worst-case meteorological conditions. In addition, should the proposed project be completed in addition to the growth forecasted for the remainder of the Chula Vista Planning Area, the increased transportation requirements would cause an increase in vehicular emissions beyond those seen in the RAQS. Thus, strategies developed in the RAQS for submittal to the California State Implementation Plan may not be adequate to reduce regional emissions to the levels required to attain the NAAQS. It may, therefore, be necessary to mitigate project emissions to the fullest possible extent.

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AIR QUALITY ANALYSIS--EASTLAKE COMMUNITY

I. Introduction

The following discussion of the potential air quality implications of the proposed Eastlake development is presented in four sections. A summary of the setting originally presented in the Environmental Constraints Inventory, is provided in Section II. Section III.A, the emissions inventory, provides an estimate of the emissions which would be generated by construction and operation of the proposed project. Potential short- and long-term impacts from the development are presented in Section III.B.2. Finally, Section IV delineates a number of measures which could reduce air pollutant emissions and potential impacts associated with the planned community.

It should be noted that although every attempt has been made to ensure the accuracy of the study, a number of uncertainties do exist. Because of the preliminary nature of this analysis, the operations and activities for which emissions, impacts, and potential mitigation measures are presented can only be estimated. Therefore, the results presented in the following sections should be viewed as approximations based on the specific assumptions utilized. Should any of the assumptions change, the estimated emissions, projected impacts, and suggested mitigation measures could significantly vary from those presented.

II. Setting

A. Meteorology

The climate and local meteorological conditions at and near the proposed project site are typical of the Mediterranean-type climates found throughout coastal Southern California. These climates are characterized by moist, mild winters, and dry, warm summers.

Temperatures in the project vicinity range from an annual, daily average maximum of 80°F to an annual nightly average minimum of 40°F. Precipitation averages approximately 10 inches per year with over 90 percent occurring from November through April. Daytime winds are typically from the west and northwest, averaging 6 to 8 mph. Evening winds frequently reverse directions and a light (2 to 4 mph average) westerly-flowing breeze is established. Calm winds often occur at night and during transitional periods after dusk and before dawn. Inversions are frequent, with about 70 percent of winter nights experiencing radiation-type inversions, and 75 percent of warm weather days with marine subsidence inversions.

B. Ambient Air Quality

Pollutants traditionally of concern in San Diego County are ozone (O₃), nitrogen oxides (NO_x), carbon monoxide (CO), and total suspended particulates (TSP). Recent monitoring data at sites near the proposed project (Brown Field and Chula Vista) have shown violations of state and federal standards for ozone, nitrogen oxides, and total suspended particulates.

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C. Regulatory Framework

Three levels of regulatory responsibility exist in San Diego County: federal, state, and local. On the federal level, the Environmental Protection Agency (EPA) has the responsibility to ensure that the National Ambient Air Quality Standards (NAAQS) are attained and maintained. To accomplish this goal, the EPA has developed a number of programs and regulations. Perhaps the most important of these is the development of State Implementation Plans (SIP). Under this program, each state is responsible for developing a document which delineates the manner of attaining the NAAQS for each pollutant. In California, it is the responsibility of the Air Resources Board to prepare the SIP. The ARB does not, however, prepare each individual strategy contained in the SIP. Rather, local agencies prepare their own strategies and the ARB compiles each agency's input to the SIP.

In San Diego County it is the responsibility of the San Diego County Air Pollution Control District (APCD) to develop the area's air quality strategy. In addition, the APCD is responsible for air pollutant monitoring, emissions inventorying, meteorological analyses, air quality modeling, and investigation, implementation, and enforcement of technological controls.

Another agency, the San Diego Association of Governments (SANDAG), also has air quality regulatory authority in the area. SANDAG, comprised of city and county governments, ensures that air quality considerations are included in all land use and transportation plans developed by the represented agencies and governments.

III. Air Quality Impacts

A. Emissions Inventory

Air emissions can be categorized as occurring from three phases of the proposed project: construction, operation, and combined construction and operation activities (construction and operation of the proposed community would occur simultaneously for a number of years due to the extended construction schedule). Specifically, emissions have been estimated for: (1) construction in 1993 (the year of peak activity), (2) operation of the complex in 1999 (determined to be near completion of the buildout phase), and (3) construction and operation activities occurring in 1996 (the year in which moderate levels of each combine to form a high level of activity).

Emissions associated with construction can generally be categorized as temporary, intermittent and are typically generated by mobile sources. Emissions occurring during the operation phase would be generated at a relatively steady state, for an extended period of time, and would contain a number of stationary emission sources. Table 1 presents the major sources of emissions expected during each phase. Included are emission factors for each source. The following section presents estimates of the emissions which would be generated by construction, operation, and combined construction/operation activities associated with the proposed Eastlake community. Maximum hourly, daily, and annual emissions have been developed for each phase.

Table 1. EMISSION FACTORS FOR SOURCES ASSOCIATED WITH DEVELOPMENT AND OPERATION OF THE PROPOSED EASTLAKE COMMUNITY

Source/Activity	Units	Emission Factor				
		THC	NO _x	SO _x	CO	TSP
<u>Construction Phase</u>						
Bulldozer ¹	g/hp-hr	0.576	12.5	0.867	1.83	0.411
Motor Grader ¹	g/hp-hr	0.489	10.5	0.874	2.19	0.625
Compressor ²	g/hp-hr	6.49	4.79	0.264	198.0	0.303
Dump Truck ³	g/hp-hr	4.3	12.3	2.80	37.0	1.96
Misc. Trucks ⁴	g/mi	11.2	7.2	0.36	135.0	0.69
Pickup Trucks ⁵	g/mi	1.90	1.73	0.20	19.46	0.31
Loader ¹	g/hp-hr	0.888	11.2	0.857	2.62	0.805
Roller ¹	g/hp-hr	0.781	15.7	1.00	3.65	0.778
Vehicular ⁶ :						
Exhaust	g/mi	0.63	2.03	0.20	7.86	0.31
Trip-Related	g/trip	7.33	--	--	46.48	--
Fugitive Dust ⁷	tons/acre-month	--	--	--	--	0.75
<u>Operation Phase</u>						
Electricity Generation ⁸ :						
Oil Fired	lbs/10 ³ KWH	0.17	2.3	2.7	0.2	0.401
Gas Fired	lbs/10 ³ KWH	0.0083	1.3	0.008	0.15	0.024
Natural Gas Combustion	lbs/MMCF	8	80/120 ⁹	neg.	20	0.15
Vehicular ⁶ :						
Exhaust	g/mi	0.63	2.03	0.20	7.86	0.31
Trip-Related	g/trip	7.33	--	--	46.48	--

1. Source: EPA, 1975. Assumes diesel as fuel.
2. EPA, 1975. Assumes gasoline as fuel.
3. Source: SCAQMD, 1980. Assumes diesel as fuel, average speed of 15 mph and utilizes factors for 1990.
4. Source: SCAQMD, 1980. Includes water trucks, flatbed trucks, etc. Assumes gasoline as fuel, average speed of 25 mph and utilizes factors for 1990.
5. Source: SCAQMD, 1980. Utilizes emission factors for light duty vehicles for 1990, and assumes average speed of 25 mph.
6. Factors for THC, CO, and NO_x obtained from SDCAPCD (1978). Factors for SO_x and TSP are from SCAQMD (1980). Both assume factors for 1990 and average speed of 35 mph.
7. Source: EPA, 1977. Assumes 50 percent reduction from watering program.
8. Source: SCAQMD, 1980.
9. Lower factor is for residential heaters and higher value is for commercial units,

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1. Construction Phase (1993)

Table 3 presents the types, quantities, and horsepower ratings of equipment projected for use during construction in 1993. Tables 4 and 5 present the maximum hourly, daily, and annual emissions associated with construction activities. The majority of the air emissions would result from the combustion of diesel fuel or gasoline in the engines used to power heavy-duty equipment and workers' vehicles. There would also be particulate emissions resulting from fugitive dust associated with earthmoving and grading operations. Some of the emission sources, such as heavy-duty construction equipment, would be distributed over an extended area since development would occur in several locations simultaneously. Other emission sources, such as workers' vehicles, would be spatially distributed over a wide geographical area between the construction site and the residences.

As is evident from Tables 4 and 5, carbon monoxide would, by far, be the pollutant emitted in the largest quantities during construction. On an hourly and daily basis, carbon monoxide emissions are followed in magnitude by nitrogen oxide and total hydrocarbon emissions, with total suspended particulates and sulfur oxides occurring in lesser quantities. On an annual basis however, total suspended particulate emissions are second to carbon monoxide in quantities emitted, due largely to fugitive dust which accounts for 97.5 percent of all annual construction-related TSP emissions in 1993.

2. Operations Phase (1999)

a. Stationary Emission Sources

Three major types of activities are expected to result in the emission of air pollutants associated with the stationary sources during the operation phase of the proposed Eastlake community. These are combustion of natural gas for heating, cooking, and water heating; consumption of electricity for heating, cooling, lighting, and other uses; and combustion of gasoline in private vehicles. In addition, a number of small miscellaneous sources (such as power lawnmowers or residential fireplaces) would emit a small amount of air pollutants. These would, however, be negligible.

The pollutants of concern associated with each activity would vary. Nitrogen oxides (NO_x), and to a lesser extent carbon monoxide (CO), would be the primary pollutants associated with natural gas combustion. Emissions associated with the consumption of electricity would vary greatly, since electricity is typically generated throughout an electrical grid network and at any given time a mix of nuclear, gas-fired, and oil-fired plants may be producing power. Assuming oil-fired power generation (a conservative assumption since the other two types of plants generate a smaller quantity of emissions), the major pollutants emitted would be sulfur oxides (SO_x) and NO_x , with total hydrocarbons (THC), CO, and total suspended particulates (TSP) generated in lesser quantities. Emissions associated with vehicular use would be largely comprised of CO, with NO_x and THC also generated in significant amounts. Emissions of SO_x and TSP would also occur, but in minimal amounts.

Table 2. Construction Activity Predicted for 1993¹

Building/Housing Type	Gross Acres	Number of Units	Square Footage
Offices	3	--	41,500
Commercial	14	--	50,000
Industrial	19	--	200,000
School	17	1	--
Park	20	1	--
Residential 1	10	16	
Residential 2	15	57	
Residential 3	29	202	
Residential 4	19	197	
Residential 5	9	146	
Residential 6	3.5	86	
Residential 7	1	45	
TOTAL	159.5		

1. Eastlake General Development Schedule (1980).

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Table 3. DAILY AND ANNUAL (1993) POWER REQUIREMENTS FOR CONSTRUCTION EQUIPMENT

Equipment/Source ¹	Horsepower ¹	Load Factor	Daily Usage (hours) ¹	Quantity	Total Horsepower Hours	
					Daily	Annual (1993) ²
Bulldozer ³	300	0.8	6	3	4,320	648,000
Motor Grader ³	300	0.8	6	2	2,880	432,000
Roller ³	200	0.8	6	1	960	144,000
Concrete Paver ³	300	0.8	3	3	2,160	324,000
Asphalt Paver ³	300	0.5	4	1	600	90,000
Concrete Truck ⁴	300	0.8	6	3	4,320	648,000
Compressor ⁴	400	0.8	7	4	8,960	1,344,000
Backhoe ⁴	100	0.8	6	2	960	144,000
Crane ³	200	0.5	4	2	800	120,000
Welder ⁴	200	0.6	4	2	960	144,000

1. Source: City of Los Angeles Department of Airports (1980).

2. Based on the daily power usage requirements. Assumes 250 working days per year and an overall factor of 0.6 to account for periods of inactivity on an annual basis.

3. Assumes diesel as fuel.

4. Assumes gasoline as fuel.

Table 4. MAXIMUM HOURLY EMISSIONS ASSOCIATED WITH CONSTRUCTION ACTIVITIES

Equipment Source	Quantity	Emissions (lbs/hr)				
		THC	NO _x	SO _x	CO	TSP
Bulldozer	1	neg.	7	neg.	1	neg.
Motor Grader	1	neg.	6	neg.	1	neg.
Concrete Paver	1	neg.	8	neg.	1	neg.
Concrete Truck	2	7	5	neg.	210	neg.
Backhoe	2	2	2	neg.	70	neg.
Compressor	2	9	7	neg.	279	neg.
Crane	1	neg.	3	neg.	1	neg.
Welder	1	neg.	4	neg.	1	neg.
Dump Trucks	2	neg.	1	neg.	2	neg.
Miscellaneous Trucks	3	1	1	neg.	13	neg.
Pick-up Trucks	3	neg.	neg.	neg.	2	neg.
Workers' Vehicles	20	neg.	1	neg.	7	neg.
Fugitive Dust ²	--	--	--	--	--	32
TOTAL		19	45	neg.	588	32

1. Based on the emission factors presented in Table 4 and the equipment horsepower ratings listed in Table 3.
2. Based on an average of the daily emissions presented in Table 5.

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Table 5. DAILY AND ANNUAL (1993) EMISSIONS ASSOCIATED WITH CONSTRUCTION ACTIVITIES FOR THE EASTLAKE PLANNED DEVELOPMENT

Equipment/Vehicles	Emissions ¹ --lbs/day (tons/year)			
	THC	NO _x	SO _x	TSP
Bulldozer	5(0.4)	119(8.9)	8(0.6)	17(1.3)
Motor Grader	3(0.2)	67(5.0)	6(0.5)	14(1.1)
Roller	2(0.2)	33(2.5)	2(0.2)	8(0.6)
Concrete Paver	4(0.3)	71(5.3)	4(0.3)	12(0.9)
Asphalt Paver	1(0.1)	20(1.5)	1(0.1)	3(0.2)
Concrete Truck	62(4.7)	46(3.5)	3(0.2)	1,886(141.5)
Compressor	128(9.6)	95(7.1)	5(0.4)	3,912(293.4)
Backhoe	14(1.1)	10(0.8)	1(0.1)	419(31.4)
Dump Truck ²	1(0.1)	3(0.4)	1(0.1)	10(1.3)
Crane	2(0.2)	25(1.9)	2(0.2)	5(0.4)
Welder	2(0.2)	30(2.3)	2(0.2)	6(0.5)
Miscellaneous Trucks ²	6(0.8)	4(0.5)	neg.	71(8.9)
Pick-up Trucks ²	1(0.1)	1(0.1)	neg(1.3)	10(1.3)
Workers' Vehicles ²	16(2.0)	30(3.8)	3(0.4)	163(20.4)
Fugitive Dust ³	--	--	--	--
TOTAL	247(20.0)	554(43.6)	38(4.5)	6,389(503.2)

1. Based on the emission factors presented in Table 1 and the quantities and horsepower requirements of construction equipment presented in Table 3.

2. Daily emissions are based on a 30-mile round-trip and the following numbers of vehicles required during the construction period: 8 miscellaneous trucks, 8 pick-up trucks, 4 dump trucks, and 225 workers' vehicles. Annual emissions are based on daily emissions and assume 250 working days per year.

3. Based on an emission factor of 0.75 tons of total suspended particulates/acre/month of activity. Daily emissions are based on monthly emissions and the assumptions of 15 acres developed in a month and a 30-day month. Annual fugitive dust emissions are based on the development of an average of 13 acres per month over the course of the year.

The quantities of air pollutants associated with the combustion of natural gas or use of electricity are directly related to the amount of natural gas and electricity consumed. The quantities of natural gas and electricity used are dependent upon a number of factors including the number, mix, and size of buildings; the types of appliances and lighting used; and the insulation installed in each unit. Due to the preliminary nature of this study, it is not possible to precisely ascertain each of the above parameters. Therefore, based on development information and assumptions concerning the predicted housing and commercial/industrial facilities, the potential electrical and natural gas requirements were estimated. Table 6 presents the build-out projected for the proposed Eastlake development by 1999. The sizes of offices and industrial/commercial facilities, and numbers of residences and schools, were provided (Eastlake General Development Schedule, 1980), while school and residence areas were estimated. Table 7 presents annual electricity and natural gas demand factors for each of the facilities. Utilizing the demand factors in Table 7, the numbers and sizes of facilities presented in Table 6, and the emission factors for natural gas combustion and oil-fired electricity generation from Table 1, the hourly, daily and annual emissions associated with natural gas and electricity useage by the Eastlake community in 1999 were estimated. These values are presented in Tables 8 and 9.

b. Mobile Emission Sources

The quantities of emissions generated by vehicles are dependent on two factors: the number of vehicle-trips, and the total vehicle-miles traveled (VMT). Emissions associated with VMT are the result of fuel burned in vehicle engines while emissions associated with the number of vehicle trips are due to vehicle start-ups and engine inefficiencies which occur during the initial phase of a trip.

Based on the traffic analysis presented in Appendix C it is predicted that 158,750 vehicle trips per day and 1,428,750 VMT would result from total buildout of the Eastlake community. The traffic analysis estimates that 10 percent of the total trips and total miles would occur during peak rush hour. Utilizing these values and the emission factors presented in Table 1, peak hourly, daily, and annual vehicular emissions have been estimated and are presented in Tables 8 and 9.

3. Combined Construction/Operation Emissions (1996)

By comparing Tables 2 and 13, it is evident that construction activity in 1996 is less than occurs in 1993. Slightly more office space is projected to be developed in 1996 compared to 1993, commercial buildings will not be constructed in 1996 (compared to the development of 50,000 square feet of space on 14 acres in 1993), and industrial building and associated acreage will be approximately one-half in 1996 than would occur in 1993. Residential developments throughout most of the buildout period are scheduled to remain fairly constant at approximately 750 dwelling units annually. The building of parks and schools is assumed to be much less in 1996 than that in 1993 since, by 1996, the majority of residential, commercial, industrial, and office development would have already occurred, thus reducing the need for more parks and schools.

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Table 6. BUILDOUT PROJECTED FOR EASTLAKE COMMUNITY--1999

Building/Housing Type	Number of Units	Area Per Unit (ft ²) ²	Total Area (ft ²)
Offices	--	--	507,000
Commercial	--	--	217,800
Industrial	--	--	2,300,000
Schools			
Elementary and Junior High	5	--	277,100
High School	2	--	113,800
Residential ⁵			
Type 1	250	2,500	625,000
Type 2	900	2,000	1,800,000
Type 3	3,080	1,700	5,236,000
Type 4	3,100	2,000	6,200,000
Type 5	2,300	1,750	4,025,000
Type 6	1,350	1,500	2,025,000
Type 7	700	1,200	840,000

1. Source: Eastlake General Development Schedule (1980).
2. Based on assumptions only.
3. Based on total projected population of 30,445, 14.0 percent of total between 5 and 14 years of age in 2000 (California Department of Finance, 1977), and average requirement of 65 ft² per student.
4. Based on total projected population of 30,445, 4.4 percent of total between 15 and 18 years of age (California Department of Finance, 1977), and average requirement of 85 ft² per student.
5. Residential Types 1 and 2 assumed to be unattached single family units, Type 3 assumed to occur in groups of 4 or less, Types 4, 5, 6, and 7 assumed to occur in groups of 5 and more.

Table 7. AVERAGE ANNUAL ENERGY USAGE FOR SELECTED FACILITIES¹

Facility	Electrical Usage (KWH/ft ² -yr) ²	Natural Gas Usage	
		(MCF/Du-year) ³	(ft ³ /ft ² -year) ⁴
Single-Family Residence w/Gas Appliances	4.8	109.5	--
Apartment w/Gas Appliances:			
4 or less units	4.0	64.1	--
5 or more units	4.0	58.0	--
Office Buildings	34.2	--	42
Retail Outlets ⁵	47.8	--	240
Industrial Facilities	50.1	--	39.6
Schools:			
Elementary	23.1	--	--
High School	38.8	--	--

1. Source: SCAQMD, 1980.

2. KWH/ft²-yr = Kilowatt hours of electricity used per square foot of floorspace per year.

3. MC/DU-yr = Thousand cubic feet of natural gas used per dwelling unit per year.

4. ft³/ft²-yr = Cubic feet of natural gas used per square foot of floorspace per year.

5. Includes a mix of department, grocery, drug and other stores.

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Table 8. MAXIMUM HOURLY AND DAILY EMISSIONS ASSOCIATED WITH THE OPERATIONAL PHASE OF THE PROPOSED EASTLAKE DEVELOPMENT--1999

Source	Emissions lbs/day (lbs/hr)			
	THC	NO _x	SO _x	CO
Natural Gas				
Combustion ¹	20(0.8)	202(8.4)	neg.	50(2.1)
Electrical Generation ²	111(4.6)	1,504(62.7)	1,766(73.6)	131(5.5)
Vehicular ³ :				
Exhaust	1,320(13.4)	4,254(43.1)	419(4.2)	16,472(166.9)
Trip-Related	1,705(17.3)	--	--	10,812(109.5)
TOTAL	3,156(36.1)	5,960(114.2)	2,185(77.8)	27,465(284.0)

1. Based on emission factors for natural gas combustion presented in Table 1, ultimate project buildout presented in Table 6, and natural gas demand factors presented in Table 7.

2. Based on emission factors for oil-fired electricity generation presented in Table 1, ultimate project buildout presented in Table 6, and electrical demand factors presented in Table 7.

3. Based on vehicular emission factors presented in Table 1, 105,603 trips per day, 1,070 trips per maximum hour, and average trip length of 9 miles (see Traffic Analysis, Section ___).

Table 9. ANNUAL EMISSIONS ASSOCIATED WITH THE OPERATIONAL PHASE OF THE PROPOSED EASTLAKE COMMUNITY--1999

Source	Emissions (tons/year)				
	THC	NO _x	SO _x	CO	TSP
Natural Gas Combustion ¹	3.7	36.7	neg.	9.2	0.1
Electrical Generation ²	20.3	274.6	322.3	23.9	47.9
Vehicular ³ :					
Exhaust	213.2	687.1	67.7	2,660.2	104.9
Trip-Related	275.7	--	--	1,747.9	--
TOTAL	512.9	998.4	390.0	4,441.2	152.9

1. Based on emission factors for natural gas combustion presented in Table 1, ultimate project buildout presented in Table 6, and natural gas demand factors presented in Table 7.
2. Based on emission factors for oil-fired electricity generation, presented in Table 1, ultimate project buildout presented in Table 6, and electrical demand factors presented in Table 7.
3. Annualized emissions were derived from daily emissions presented in Table 8. Annual emissions were based on the daily project-related traffic of 105,603 trips/day occurring on 260 days (5 day work weeks), with 60 percent of the weekday total traffic volume occurring during the remainder of the year (to account for weekends). Average trip length was assumed to be 9 miles (see Traffic Analysis, Section).

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Table 10. BUILDOUT PROJECTED FOR EASTLAKE COMMUNITY--1996

Building/Housing Type	Number of Units	Area Per Unit (ft ²) ²	Total Area (ft ²)
Offices	--	--	461,500
Commercial	--	--	217,500
Industrial	--	--	2,025,000
Schools			
Elementary and Junior High ^{3,4}	4	--	235,492
High School ^{3,5}	1	--	96,785
Residential ^{3,6}			
Type 1	213	2,500	532,500
Type 2	765	2,000	1,530,000
Type 3	2,618	1,700	4,450,600
Type 4	2,635	2,000	5,270,000
Type 5	1,955	1,750	3,421,250
Type 6	1,148	1,500	1,722,000
Type 7	595	1,200	714,000

1. Derived from the number of units and population projected for full buildout in 1999 (Eastlake General Development Schedule, 1980).
2. Based on an assumption only.
3. Based on the assumption that by 1996, approximately 85 percent of the population of 30,445 predicted for full buildout in 1999 would be present.
4. Based on an average of 14.0 percent of the total population distributed between 5 to 14 years of age in the year 2000 (California Department of Finance, 1977) and an average requirement of 65 ft² per student.
5. Based on an average of 4.4 percent of the total population distributed between 15 to 18 years of age in the year 2,000 (California Department of Finance, 1977) and an average requirement of 65 ft² per student.
6. Residential Types 1 and 2 are assumed to be unattached single family units, Type 3 is assumed to occur in groups of 4 or less, and Types 4, 5, 6, and 7 are assumed to occur in groups of 5 or more.

Table 11. MAXIMUM HOURLY AND DAILY EMISSIONS ASSOCIATED WITH THE OPERATIONAL PHASE OF THE PROPOSED EASTLAKE DEVELOPMENT--1996

Source	Emissions lbs/day (lbs/hr)				
	THC	NO _x	SO _x	CO	TSP
Natural Gas Combustion ¹	18(0.8)	174(7.3)	neg.	43(1.8)	1(neg.)
Electrical Generation ²	90(3.8)	1,221(50.9)	1,433(59.7)	106(4.4)	213(8.9)
Vehicular ³ :					
Exhaust	1,122(11.4)	3,616(36.7)	356(3.6)	14,001(141.9)	552(5.6)
Trip-Related	1,450(14.7)	--	--	9,220(93.3)	--
TOTAL	2,680(30.7)	5,01(94.9)	1,789(63.3)	23,370(241.4)	766(14.5)

1. Based on emission factors for natural gas combustion presented in Table 1, ultimate project buildout presented in Table 10, and natural gas demand factors presented in Table 7.
2. Based on emission factors for oil-fired electricity generation presented in Table 1, ultimate project buildout presented in Table 10, and electrical demand factors presented in Table 7.
3. Based on vehicular emission factors presented in Table 1. The number of trips in 1996 was derived from traffic values given for the year 2000 (see Traffic Analysis Section) by assuming that 85 percent of the total population projected at the end of buildout would be present in 1996. Thus, there would be 89,763 trips/day and 910 trips/hour in 1996 with an average distance traveled of 9 miles/trip.

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Table 12. ANNUAL EMISSIONS ASSOCIATED WITH THE OPERATIONAL PHASE OF THE PROPOSED EASTLAKE COMMUNITY--1996

Source	Emissions (tons/year)				
	THC	NO _x	SO _x	CO	TSP
Natural Gas Combustion ¹	3.2	31.8	neg.	7.9	0.1
Electrical Generation ²	16.5	222.8	261.5	19.4	38.8
Vehicular ³ :					
Exhaust	181.2	584.0	57.5	2,261.2	89.2
Trip-Related	234.3	--	--	1,485.7	--
TOTAL	435.2	838.6	319.3	3,774.2	128.1

1. Based on emission factors for natural gas combustion presented in Table 1, ultimate project buildout presented in Table 10, and natural gas demand factors presented in Table 7.
2. Based on emission factors for oil-fired electricity generation, presented in Table 1, ultimate project buildout presented in Table 10, and electrical demand factors presented in Table 7.
3. Annualized emissions were derived from daily emissions presented in Table 11. Annual emissions were based on the daily project-related traffic of 89,763 trips/day occurring on 260 days (5 day work weeks), with 60 percent of the weekday total traffic volume occurring during the remainder of the year (to account for weekends). Average trip length was assumed to be 9 miles (see Traffic Analysis, Section __).

Table 13. Construction Activity Predicted for 1996

Building/Housing Type	Gross Acres	Number of Units	Square Footage
Offices ¹	3	--	45,000
Commercial ¹	--	--	--
Industrial ¹	8	--	100,000
School	7	1	--
Park	4	1	--
Residential 1	10	16	
Residential 2	15	57	
Residential 3	29	202	
Residential 4	19	197	
Residential 5	9	146	
Residential 6	3.5	86	
Residential 7	1	45	
TOTAL	108.5		

1. Eastlake General Development Schedule (1980).

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Table 14. DAILY AND ANNUAL (1996) POWER REQUIREMENTS FOR CONSTRUCTION EQUIPMENT

Equipment/Source ¹	Horsepower ¹	Load Factor	Daily Usage (hours) ¹	Quantity	Total Horsepower Hours Daily	Annual (1996) ²
Bulldozer ³	300	0.8	2	3	1,440	216,000
Motor Grader ³	300	0.8	3	2	1,440	216,000
Roller ³	200	0.8	2	1	320	48,000
Concrete Paver ³	300	0.8	3	2	1,440	216,000
Asphalt Paver ³	300	0.5	2	1	300	45,000
Concrete Truck ⁴	300	0.8	4	3	2,880	432,000
Compressor ⁴	400	0.8	6	3	6,720	864,000
Backhoe ⁴	100	0.8	4	2	640	96,000
Crane ³	200	0.5	4	2	800	120,000
Welder ⁴	200	0.6	3	2	720	108,000

1. Source: City of Los Angeles Department of Airports (1980).

2. Based on the daily power usage requirements. Assumes 250 working days per year and an overall factor of 0.6 to account for periods of inactivity on an annual basis.

3. Assumes diesel as fuel.

4. Assumes gasoline as fuel.

Table 15. SUMMARY OF PROJECT-RELATED EMISSIONS DURING CONSTRUCTION (1993), OPERATION (1999), AND COMBINED CONSTRUCTION-OPERATION (1996) PHASES

Phase	Year	Source/Activity	Emissions (tons/year)				
			THC	NO _x	SO _x	CO	TSP
Construction	1993	All equipment and vehicles	20	44	5	502	120
Construction/ Operation	1996	Construction	13	26	3	331	82
		Operation (Stationary) Operation (Mobile)	20 416	255 583	262 58	27 3747	39 89
Operation	1999	(Total)	449	865	323	4,105	210
		Stationary Sources Mobile Sources	24 489	311 687	322 68	33 4,408	48 105
		(Total)	513	998	390	4,441	153

1. Based on the emissions presented in Table 5.
2. Based on the amount of construction activity predicted for 1996 as presented in Table 13, construction equipment power requirements specified in Table 14, and emission factors listed in Table 1.
3. Based on the emissions presented in Table 9.

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Table 14 presents quantities, types, and horsepower requirements of heavy-duty equipment needed for construction activities in 1996 while Table 15 lists associated annual emissions. Carbon monoxide would, by far, be the pollutant emitted in the largest quantities, followed by total suspended particulates (largely due to fugitive dust from grading and earthmoving operations), nitrogen oxides, and total hydrocarbons. Sulfur oxide emissions would be fairly insignificant.

Emissions resulting from the operation of the proposed community can be characterized as resulting from two types of activities/sources--the combustion of fuel for heating, cooking, electrical generation, etc. and residents' automobiles. Based on the amount of development projected by 1996 (presented in Table 13), the average energy useage for the respective facilities (as listed in Table 7), and emission factors (Table 1), Tables 11 and 12 present emissions associated with the operation of the proposed Eastlake community.

Table 15 summarizes annual emissions associated with construction and operation of the community. Operation-related activities would result in considerably more emissions than would construction. Mobile sources (residents' automobiles) would generate higher levels of all pollutants (except for sulfur oxides) than would stationary sources associated with natural gas combustion and the generation of electricity. The highest level of sulfur oxides would result from oil-fired plants used for producing electricity. The pollutant produced in the largest quantities during construction and operation activities in 1996 would be carbon monoxide, whose level is more than 4 1/2 times that of the second highest pollutant (nitrogen oxides).

4. Summary of Emissions

Table 15 summarizes the amount of pollutants generated during each phase of the project under consideration: construction (1993), operation (1999), and combined construction/operation activities (1996). The largest quantities of pollutants would occur during the operation phase, followed by the combined construction/operation period. In relation to the other two phases of the project, construction activities in 1993 would result in a relatively small amount of emissions.

In all phases, carbon monoxide is, by far, the pollutant emitted in the largest quantities. Vehicles are a major source of most pollutants, particularly carbon monoxide. The largest portion of sulfur oxides are due to oil-fired electrical generating units. Finally, fugitive dust emissions during construction due to grading and earthmoving operations account for the majority of total suspended particulates during those phases.

B. Impacts

Two types of air quality impacts could potentially result from the emissions associated with construction and operation of the Eastlake community. First, short-term (24-hour or less) impacts would result from localized emissions and meteorological conditions in the immediate project vicinity, and would affect only limited geographical areas. Secondly, long term impacts would be caused as the pollutants generated in the community are dispersed throughout the air basin.

The short-term impact most likely to occur would be that of carbon monoxide from automobile emissions. Long-term impacts, if any, would be due to the generation of electricity used in the community.

The phases during which potential impacts could occur would be construction (1993), operation of the proposed community (1999), and combined construction/operation activities (1996). However, since the largest quantities of pollutants would occur during the year of full operation (1999), potential impacts which may occur during that period will be evaluated.

In addition to a difference in the amount of pollutants generated during phases of the project, a distinction can be made in the types of emission sources. The sources of emissions would be mobile (heavy-duty construction equipment or workers and residents' vehicles) or stationary (the combustion of fuel and consumption of electricity in boilers, furnaces, turbines, water heaters, etc.) In general, mobile emission sources generate the largest quantities of pollutants.

1. Construction Phase Impacts (1993)

The construction of the proposed project may have a temporary minor impact on air quality in the immediate vicinity of the project site. Impacts will be due primarily to emissions from the construction equipment. Localized particulate matter and nitrogen oxide emissions may result in short-term violations of state and federal primary air quality standards during the construction period. However, these impacts, because of their temporary and intermittent nature, and the relatively low amounts of reactive emissions, are not expected to be significant. In addition, the emission sources would not be located at a single point--workers' vehicles would travel between the site and their place of residence, and construction activity itself would occur at several locations within the 3,073 acre development simultaneously. Thus the magnitude of impacts, should they occur, would be lessened due to the distribution of the emission sources.

2. Operation Phase Impacts (1999)

a. Short-Term Impacts

Short-term impacts, if any, would likely result from the large number of vehicles associated with the project once operational. Vehicular traffic would be the largest source of all emissions, except for sulfur oxides (electrical generation would account for the greatest amount of SO_x). Vehicles are expected to produce large amounts of carbon monoxide. Vehicles would also generate a major portion of the nitrogen oxides emitted. Based on the traffic analysis, it was projected that the largest volume of hourly traffic, and thus emissions, would occur on Otay Lakes Road.

Environmental Protection Agency's air quality computer model HIWAY was used to translate the calculated emissions into maximum CO and NO₂ concentration increments resulting from peak hour traffic. A 0.1 kilometer (328 feet) segment of Otay Lakes Road was analyzed. Emission inputs, derived from Table 8, were based on a maximum hourly flow of 1,070 vehicles along this road segment and upon the most recent vehicular emission factors. The

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area just north of the road was chosen as a pollutant receptor site. Meteorological inputs utilized a relatively slow, direct wind flow of 2.2 meters per second (5 miles per hour) and a mixing height of 200 meters. These conditions constitute a "worst-case" situation and were selected in order to lessen the possibility of underprediction of impacts.

Air quality impacts were assessed by adding the estimated concentration increments due to the proposed project to the existing ambient air quality in the San Diego area and comparing these final projected concentrations to the applicable federal and state ambient air quality standards. The computer results indicate that the CO concentrations at a distance of 10 to 15 meters from the roadway were approximately 2.2 ppm. Based on the maximum one-hour concentration of 26 ppm of CO recorded downtown San Diego in 1979, it is not expected that any violations of the state one-hour carbon monoxide standard of 40 ppm or the federal primary one-hour standard of 35 ppm would occur. Concentration increments of NO₂ were predicted to be over 550 ug/m³ at 10 meters for a worst-case situation. The highest recorded NO₂ concentration of 26 pphm at Chula Vista has already exceeded the state one-hour AAQS of 25 pphm. Thus, the predicted NO₂ increment could exacerbate this violation. It should be noted, however, that NO₂ levels decrease at distances further than 10 meter away from the road and that the meteorological conditions chosen were worst-case.

b. Long-Term Impacts

Project-related, long-term impacts are difficult to assess since emissions would be from a variety of sources (mobile and stationary) and would occur over a wide geographical area. For example, emissions from mobile sources would occur throughout the Eastlake community, as well as the San Diego Air Basin. Furthermore, the majority of stationary source emissions would result from the generation of electricity which would be provided by utilities in the area. Emissions associated with electrical usage, therefore, would not occur at the Eastlake community but would be dispersed throughout a fairly large electrical grid system. On this basis, comparison of project-related emission with regional emissions in San Diego County is appropriate in assessing impacts.

Table 16 presents emissions projected to occur in the San Diego Air Basin in 1990. By comparing regional emissions with those resulting from all project-related sources in the peak emission year (1999), it is evident that emissions from the Eastlake community would be relatively small. Hydrocarbons and total suspended particulates resulting from the proposed project would be less than one percent of those which are projected to occur throughout the air basin. Project-related nitrogen oxides and carbon monoxide emissions would be approximately 1.4 percent of those estimated to occur in the San Diego Air Basin in the future. Thus, it is not expected that operation of the Eastlake community would adversely impact regional air quality.

3. Summary

Computer modeling has indicated that the only major pollutant of concern during operation of the proposed facilities would be NO₂, emitted from light-duty vehicles during peak hour traffic. Residences immediately north of Otay Lakes Road could potentially be subject to elevated NO₂ levels.

Table 16. PROJECTED 1990 EMISSIONS FOR SAN DIEGO COUNTY

Source	Emissions--tons/year ² (% of total emissions)			
	RHC	NO _x	SO ₂	CO
Process Losses	43,800(54)	neg.	neg.	52,560(36)
Fuel Combustion ⁴	365(1)	13,870(20)	2,555(1)	3,285(2)
Air Water, and Rail Transportation	6,205(8)	6,205(9)	13,505(4)	2,190(2)
Motor Vehicles	40,515(36)	49,640(71)	273,385(88)	6,570(4)
Miscellaneous ⁵	1,825(2)	neg.	21,900(7)	82,490(56)
TOTAL	92,710(100)	69,715(1000)	311,345(100)	147,095(100)

1. Source: San Diego Air Pollution Control District (1978). Emission projections were estimated by San Diego Air Pollution Control District (SDAPCD) using three scenarios with differing levels of controls. The scenario selected assumed an intermediate level of control. The assumptions used were that existing rules and regulations as of 1977 will continue for all future years and regulations with future implementation dates would occur as scheduled.
2. Emissions given by SDAPCD have been annualized by multiplying emissions by 365 days.
3. No data available.
4. Includes emissions from energy generation and waste burning.
5. Includes fugitive dust from construction, farming, roads, fires, and utility equipment.

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It is not expected that stationary source emissions would have a significant impact on ambient air quality levels.

IV. Mitigation

Emissions of particulate matter (fugitive dust) during construction may be greatly alleviated by twice per day sprinkling. Motor vehicle use would be the major cause of air quality impacts resulting from the operation of the proposed project. Although the following types of measures to reduce vehicular travel may be beyond the power of the applicant to enforce, incentives and encouragement could result in a significant reduction in emissions from employee vehicles. Potential measures would include:

- 1) car and/or van pooling
- 2) community-operated commuter buses, and
- 3) phasing of work shifts to minimize peak hour emissions.

It is not expected that stationary source emissions would require mitigation since the predicted concentration increment would be small. However, a number of measures do exist to reduce natural gas and electrical consumption, thereby reducing stationary emissions. These measures include installation of water heater and building insulation, utilization of solar technologies for heating and hot water requirements, designing of residences and buildings to maximize the use of sun and shade for heating and cooling.

REFERENCES

Eastlake General Development Schedule, 1980.

City of Los Angeles, Department of Airports, Rockwell International Aircraft Assembly Plant in the Palmdale International Airport Complex, 1980.

San Diego County Air Pollution Control District (SDAPCD), and Comprehensive Planning Organization (CPO), Regional Air Quality Strategy, 1978.

South Coast Air Quality Management District (SCAQMD), Air Quality Handbook for Environmental Impact Reports, 1980.

U.S. Environmental Protection Agency (EPA), Compilation of Air Pollutant Emission Factors, AP-42, 1975-1980.

_____, User's Guide for HIWAY, a Highway Air Pollution Model, 1975.

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EASTLAKE DRAFT
ENVIRONMENTAL IMPACT REPORT

City of Chula Vista Case Number: EIR 81-03
State Clearinghouse Number: 80121007

APPENDIX C

TRAFFIC IMPACT STUDY
EASTLAKE PLANNED COMMUNITY

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EASTLAKE DRAFT
ENVIRONMENTAL IMPACT REPORT

City of Chula Vista Case Number: EIR 81-03
State Clearinghouse Number: 80121007

APPENDIX D

FISCAL EFFICIENCY ANALYSIS
EASTLAKE PLANNED COMMUNITY

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City of Chula Vista
Planning Department Revisions

Eastlake Fiscal Analysis

Alfred Gobar Associates, Inc. completed a Fiscal Efficiency Analysis of the proposed Eastlake Planned Community in March, 1981, which was revised in September 1981. That report follows this discussion.

The Chula Vista Planning Department Staff made several changes to the analysis and arrived at the revenues and costs outlined in Table A, which supercedes Exhibit II-1 of the attached report (Page 10). The differences between the calculations are a result of the use of actual budget figures by the City rather than the earlier projected budget figures used by Alfred Gobar Associates, Inc., and a change in several assumptions.

The two primary assumptions which were changed involved the calculation of personal property tax, and demand for commercial facilities. Alfred Gobar Associates calculated personal property tax revenues from Eastlake based on a relationship between assessed value of personal property in Chula Vista to the total assessed value of land and improvements. Using this assumption, personal property tax would constitute 8.5 percent of the value of land and improvements in Chula Vista. Since more than 95 percent of personal property taxes come from commercial and industrial properties, the City Staff compared the personal property tax to commercial and industrial market valuation (13.9 percent). This factor was then applied to only the commercial and industrial value within the Eastlake project area, with a resultant decrease in total personal property tax revenues from the project.

The Fiscal Efficiency Analysis assumed that the increased retail expenditure potential of future Eastlake residents would stimulate development of additional retail facilities within the City of Chula Vista, with associated revenue increases to the City. The Chula Vista staff believe it is more realistic to assume that at least 50 percent of the excess demand could be accommodated by existing commercial establishments within the City, such as downtown, the Chula Vista Shopping Center, and the Broadway

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commercial strip. Changing this assumption results in a reduction in revenue from ad valorem taxes and business license taxes.

Other valuations which were revised include an updated market value for real property taxes of \$1,399,726,000, from the County Assessor (page 26); a January 1, 1981 population of 84,375 (page 33); and a total of 202 miles of paved streets (page 38). Additionally, the revenues associated with the Park Land Acquisition and Development Fund, and the residential construction tax (page 29) will likely not occur if the applicant provides parks within the development for the City.

The individual recalculations are not provided in this document, but are available for review at the City of Chula Vista Planning Department. The revised total revenues and costs are shown on Figure A.

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Table A

ANNUAL REVENUE AND COST SUMMARY - EASTLAKE FISCAL IMPACT ANALYSIS

	End of Phase 1	End of Phase 2	End of Phase 3
<u>Revenues</u>			
Property Tax			
Development of Property	\$ 676,967	\$1,364,731	\$1,994,728
Additional Retail in City	2,471	6,089	15,515
Sales Tax	146,455	286,479	443,208
Business License Tax	14,309	34,024	36,255
Utility Users Tax	314,614	674,355	834,125
Franchise Tax	122,983	263,605	326,059
Real Property Transfer Tax	21,456	42,892	62,965
Per Capita - Related Revenue	<u>364,622</u>	<u>731,632</u>	<u>1,101,500</u>
Total Revenue	\$1,663,877	\$3,403,807	\$4,814,355
<u>Costs</u>			
Police Costs	\$ 493,117	\$ 989,462	\$1,488,674
Fire Costs - Operating	249,531	500,697	753,818
Capital	37,374	37,374	37,374
Public Works Costs	217,530	444,728	608,117
Parks and Recreation Costs	195,009	391,296	589,111
Library Costs	119,324	239,428	360,469
Overhead Costs	<u>305,500</u>	<u>614,978</u>	<u>911,145</u>
Total Costs	<u>\$1,617,385</u>	<u>\$3,217,963</u>	<u>\$4,749,708</u>
Net Revenue	\$ 46,492	\$ 185,844	\$ 64,647

Source Alfred Gobar Associates, Inc.
City of Chula Vista Planning Department

FISCAL EFFICIENCY OF EASTLAKE PLANNED COMMUNITY
CHULA VISTA, CALIFORNIA

Prepared for:
WESTEC SERVICES, INC.

Prepared March 1981
Revised September 1981



ALFRED GOBAR ASSOCIATES, INC.

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CHAPTER I
INTRODUCTION

This report describes the results of a projection of local government revenues and costs associated with the phased development of a 3,000+ acre project - the EastLake Planned Community - to be annexed to the City of Chula Vista in San Diego County. The analysis involves evaluation of the sources of revenues for local government derivative of the development as planned, and projection of the costs of providing city services to the project. This review helps to determine whether the project would make a net positive fiscal contribution in terms of ongoing operating revenues and expenditures, exclusive of capital improvements.

The existing operating cost structure of the City of Chula Vista based on the 1980-1981 budget was used as a basis for determining the cost implications of providing City services to the proposed EastLake Planned Community.

Cities and other local government agencies are still in the process of developing refined cost accounting techniques. As a result, it is frequently necessary to make assumptions regarding cost implications of expanding City services to accommodate new development. It can be argued that many City costs have the same general composition as costs in industry. They are composed of a fixed cost element which is independent of the level of service provided by the agencies involved. In addition to the fixed cost element, which is independent of the

level of service being provided, there is a variable cost element which is a direct function - linear, curvilinear, or step wise - of incremental activity levels required by expanding service requirements.

Theoretical studies, however, have indicated that with increased levels of activity, city budgets frequently increase faster than the levels of activity; i.e., there are negative economies of scale. City costs per capita are frequently more for larger cities than they are for small cities. One reason for this is the lack of comparability in the levels of service provided by the various types of agencies in cities throughout the Country. For purposes of this report, it was assumed that city costs would increase by a direct linear function of the increase in service requirements with no allowance for a fixed cost-variable cost production function; i.e., the costs were calculated as average costs including an allocation of fixed costs at the same rate as is currently observed. It could be argued that the true costs of providing services to the EastLake Planned Community will be less than the figures quoted in this report because of the incremental nature of the services provided and, therefore, the assumption that no addition to the fixed cost is implied.

The EastLake project will be phased as shown in Exhibit I-1. All figures in Exhibit I-1 are stated in 1980-1981 prices. This is in order to make the projections consistent with 1980-1981 City cost parameters.

It could be argued that all values should be inflated, including the cost of providing city services. Essentially, however, applying a universal inflation factor to both costs and revenues results in the

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same cost/revenue ratio over time. Since the anticipation of inflation is itself a variable that at this juncture is an imponderable, the projections in this report were made in terms of 1980-1981 prices. This should result in consistent benefit/cost ratios over time, although the absolute amounts will be altered because of the impact of inflation.

The project plan was restructured into phases on the basis of absorption projections provided by the client for each of the elements in the product mix. The changes in the product mix in each phase are summarized in Exhibit I-1, which includes acreage figures, population estimates, valuation data for the residential sector, and projections of the physical amount of nonresidential development implied by the phasing assumptions described in Exhibit I-2.

EXHIBIT I-1

SUMMARY OF AMOUNT OF DEVELOPMENT AT END OF EACH PHASE
EASTLAKE, CHULA VISTA

Item	End of Phase 1	End of Phase 2	End of Phase 3
Residential			
Units	3,906	7,838	11,800
Acres	574	1,098	1,721
Average Residential Value	\$107,127	\$104,427	\$107,315
Total Population	10,078	20,222	30,445
Employment Park			
Acres	94	194	209
Square Feet	1,025,000	2,125,000	2,300,000
Office			
Acres	10	31	31
Square Feet	170,000	507,000	507,000
Commercial			
Acres	15	29	29
Square Feet	123,900	217,800	217,800
Community Facilities (Acres)	12	27	27
Schools (Acres)	20	93	113
Other (Acres)	375	779	944
Total Acres	1,100	2,251	3,073*

*Does not add due to rounding

Source: Alfred Gobar Associates, Inc., based on information provided by Cadillac-Fairview Development Company.

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EXHIBIT I-2

ANALYSIS OF DEVELOPMENT BY PHASE
EASTLAKE, CHULA VISTA

Residential Development	Acres		Dwelling Units		Average Price	Absorption Rate	Year to Absorb
<u>Phase I</u>							
Type 1 - Estates/Custom Homes*	180	(69)	250	(96)	\$218,000	16 Du/Yr.	6.0
Type 2 - Conv. SFD	72		220		158,000	57 Du/Yr.	3.9
Type 3 - Patio Homes Cluster - SFA Mobile/Manufacturing Homes }	216		680 504 46		132,000 115,000 58,000	112 Du/Yr. 82 Du/Yr. 8 Du/Yr.	6.07 6.15 5.75
Type 4 - Condo "A"	140		1,090		105,000	197 Du/Yr.	5.5
Type 5 - Condo "B"	45		500		95,000	146 Du/Yr.	3.4
Type 6 - Condo "C" Condo "D" }	22		289 181		54,000 85,000	53 Du/Yr. 33 Du/Yr.	5.5 5.5
Type 7 - Condo "E" Apartments }	10		201 99		72,000 50,000	30 Du/Yr. 15 Du/Yr.	6.7 6.6
Total Residential	685	(574)	4,060	(3,906)	\$107,127	558 Du/Yr.	7.0

	Acres		Square Feet	
Employment Park*	66	(94)	726,300	(1,025,000)
Office*	18	(10)	294,400	(170,000)
Commercial*	14	(15)	123,900	
Community Facilities	12			
Schools	20			
Other	375			
Total	1,190	(1,100)	1,144,600	(1,318,900)

*Due to absorption rates used, while a given amount of product is physically located in the Phase 1 area, absorption will overlap into more than one phase time period. Figures in parentheses indicate portion which will be absorbed in this time period only.

Exhibit I-2
 Analysis of Development by Phase
 Eastlake, Chula Vista
 Page 2

Residential Development	Acres		Dwelling Units		Average Price	Absorption Rate	Year to Absorb
<u>Phase 2</u>							
Type 1 - Estates/Custom Homes*	0	(69)	0	(96)	\$218,000	16 Du/Yr.	6.0
Type 2 - Conv. SFD	102		310		158,000	57 Du/Yr.	5.4
Type 3 - Patio Homes			183		132,000	112 Du/Yr.	1.6
Cluster - SFA	59		135		115,000	82 Du/Yr.	1.7
Mobile/Manufacturing Homes }			12		58,000	8 Du/Yr.	1.5
Type 4 - Condo "A"	166		1,290		105,000	197 Du/Yr.	6.5
Type 5 - Condo "B"*	97	(90)	1,100	(1,022)	95,000	146 Du/Yr.	7.0
Type 6 - Condo "C"*	30	(26)	412	(371)	54,000	53 Du/Yr.	7.0
Condo "D"*			258	(198)	85,000	33 Du/Yr.	7.0
Type 7 - Condo "E"*	15	(12)	269	(210)	72,000	30 Du/Yr.	7.0
Apartments }			131	(105)	50,000	15 Du/Yr.	7.0
Total Residential	469	(524)	4,100	(3,932)	\$101,744	562 Du/Yr.	7.0

	Acres		Square Feet	
Employment Park*	143	(100)	1,573,700	(1,100,000)
Office*	13	(21)	212,600	(337,000)
Commercial*	15	(14)	93,900	
Community Facilities	15			
Schools	73			
Other	404			
Total	1,132	(1,151)	1,880,200	(1,530,900)

*Due to absorption rates used, while a given amount of product is physically located in the Phase 2 area, absorption will overlap into more than one phase time period. Figures in parentheses indicate portion which will be absorbed in this time period only.

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Residential Development	Acres		Dwelling Units		Average Price	Absorption Rate	Year to Absorb
<u>Phase 3</u>							
Type 1 - Estates/Custom Homes*	0	(42)	0	(58)	\$218,000	16 Du/Yr.	3.6
Type 2 - Conv. SFD	120		370		158,000	57 Du/Yr.	6.5
Type 3 - Patio Homes Cluster - SFA Mobile/Manufacturing Homes }	284		907 671 62		132,000 115,000 58,000	112 Du/Yr. 82 Du/Yr. 8 Du/Yr.	8.1 8.2 7.8
Type 4 - Condo "A"	95		720		105,000	197 Du/Yr.	3.7
Type 5 - Condo "B"**	58	(65)	700	(778)	95,000	146 Du/Yr.	5.3
Type 6 - Condo "C"** Condo "D"** }	10	(14)	129 81	(170) (141)	54,000 85,000	53 Du/Yr. 33 Du/Yr.	3.2 4.3
Type 7 - Condo "E"** Apartments }	0	(3)	0 0	(59) (26)	72,000 50,000	30 Du/Yr. 15 Du/Yr.	2.0 1.7
Total Residential	567	(623)	3,640	(3,962)	\$113,027	483 Du/Yr.	8.2

	Acres		Square Feet	
Employment Park*	0	(15)	0	(175,000)
Office	0		0	
Commercial	0		0	
Community Facilities	0			
Schools	20			
Other	<u>165</u>			
Total	752	(823)	0	(175,000)

*Due to absorption rates used, while a given amount of product is physically located in the Phase 3 area, absorption will overlap into more than one phase time period. Figures in parentheses indicate portion which will be absorbed in this time period only.

CHAPTER II
SUMMARY AND CONCLUSIONS

1. At completion, the EastLake project will constitute an increase in assessed value for the City almost equivalent to the City's current assessed value, stated in terms of 1980-1981 prices. The population increase derivative of the completion of the EastLake project, however, is expected to be 30,445 persons. In essence, therefore, the assessed value, or tax base for ad valorem taxes, will be increased by nearly 100.0 percent, while the population to be serviced will be increased by only 36.0 percent. The per capita tax base in the EastLake project will be only 1.9 times that of Chula Vista at present, due to the lower tax rate applicable to annexed territories. The expensive housing to be developed in the EastLake project implies a higher income population than is typical of Chula Vista residents at present, generating the potential for higher than average per capita revenues from taxable retail sales. As a result of these factors, the potential City revenue derived from this project is expected to exceed the anticipated increase in City cost despite the conservative treatment of EastLake's contribution to ad valorem taxes. At the end of phase 1, the surplus City revenue derivative of the project is expected to average \$76,729 per year (in 1980-1981 prices). At the end of the second phase, the ongoing excess of revenues over City costs attributable to the EastLake project is expected to amount to

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\$243,765 per year. By the completion of the third phase, revenues to the City are expected to exceed the cost of providing City services by \$184,290 (stated in terms of 1980-1981 prices).

2. The benefit/cost ratio at the end of the first phase is expected to be 1.05:1. By the completion of the second phase of the project, the benefit/cost ratio will have risen to 1.08:1. At the completion of the third phase, the benefit/cost ratio will drop to 1.04:1 as a result of a more rapid increase in population than the increase in nonresidential facilities during the completion of the third phase.
3. No allowance was made for capital improvement budgets either for the City or for the applicant. The one exception is an allowance for defined capital improvements required for fire protection. Negotiations between the City and the applicant will eventually define the applicable level of capital improvements and the incidence as reflected in debt service responsibility.

EXHIBIT II-1

ANNUAL REVENUE AND COST SUMMARY - EASTLAKE FISCAL IMPACT ANALYSIS

	End of Phase 1	End of Phase 2	End of Phase 3
<u>Revenues</u>			
Property Tax			
Development of Property	\$ 721,007	\$1,449,318	\$2,131,355
Additional Retail in City	6,877	16,974	43,252
Sales Tax	146,455	286,479	443,208
Business License Tax	14,490	34,476	37,407
Utility Users Tax	316,280	678,466	844,608
Franchise Tax	104,349	223,894	278,721
Real Property Transfer Tax	37,256	74,476	109,330
Per Capita - Related Revenue	360,289	722,937	1,088,409
	<u>\$1,707,003</u>	<u>\$3,487,020</u>	<u>\$4,976,290</u>
<u>Costs</u>			
Police Costs	\$ 496,342	\$ 995,934	\$1,499,416
Fire Costs - Operating	252,454	506,561	762,647
Capital	37,374	37,374	37,374
Public Works Costs	202,185	413,356	565,219
Parks and Recreation Costs	195,312	391,902	590,024
Library Costs	117,913	236,597	356,207
Overhead Costs	328,694	661,531	981,113
	<u>\$1,630,274</u>	<u>\$3,243,255</u>	<u>\$4,792,000</u>
Net Revenue	\$ 76,729	\$ 243,765	\$ 184,290
Benefit/Cost Ratio (Excluding possible additional capital Costs)	1.05/1.00	1.08/1.00	1.04/1.00

Source: Alfred Gobar Associates, Inc.

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CHAPTER III
EASTLAKE FISCAL IMPACT ANALYSIS

Revenue

(1) Property Tax. Since the passage of Proposition #13, it has become more difficult to calculate the amount of property tax revenue that a city is likely to receive as the result of new development. In the 1980-1981 budget for the City of Chula Vista, property tax revenue amounts to \$3,149,620. The assessed value implicit in the 1980-1981 budget is \$389,642,337.* The implied property tax rate resulting from a comparison of these two figures is \$0.8083/\$100 assessed value. This amounts to 20.2 percent of the overall tax of 1.0 percent of market value.

However, in the case of annexed property, the County of San Diego has recently reached an agreement with the cities located in San Diego County regarding the share of property tax revenue that is allocable to individual cities when an unincorporated area is annexed. This agreement will govern the distribution of property tax generated by the EastLake property once it is annexed into the City of Chula Vista. The calculations on which this property tax will be based are presented in Exhibit III-1. The City's share of the property tax revenue amounts to an equivalent \$0.5524/\$100 assessed valuation. For undeveloped property, this tax applies only to the "incremental growth" in tax revenues after annexation, which occurs by reason of increased assessed

*See adjusted assessed value figure in Appendix A.

valuation or the 2.0 percent per year increase in valuation of property permitted under Proposition #13. Since this analysis is being carried out in current dollars, excluding the impact of inflation, only the increment caused by the increased assessed valuation is relevant in terms of the City's property tax base.

As shown below, the market value projected in 1980-1981 dollars at the completion of phase 1 for the EastLake project will be \$486,541,562. In addition to the real estate values which constitute a tax base element, an allowance was made for taxes on personal property associated with the real estate development. Currently, personal property constitutes 8.5 percent of the value of land and improvements in the City of Chula Vista. This is based on the relationship between assessed value of personal property (\$34,152,585) to the total assessed value of land and improvements (\$404,928,968) in fiscal 1980-81 (Appendix A). The same factor was applied to the projections for the EastLake project. This results in total market value in the EastLake project at the end of phase 1 of \$527,897,595. By the end of phase 3, the implicit value of the program planned for the EastLake project suggests an overall market value in 1980-1981 prices of \$1,549,134,790 or an assessed value of \$387,283,698. Comparing this figure with the current assessed value of the City of Chula Vista suggests that the project will nearly double the current assessed value of the City.

In order to determine the incremental assessed value and, therefore, the incremental ad valorem taxes derivative of the development of the EastLake project, it is necessary to deduct the

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current assessed value of the site. These calculations are as shown below:

	<u>End of Phase I</u>	<u>Annual Revenue End of Phase 2</u>	<u>End of Phase 3</u>
Market Value of Project:			
Residential	\$418,438,062	\$ 818,498,826	\$1,266,317,000
Employment Park	43,050,000	89,250,000	96,600,000
Office	17,000,000	50,700,000	50,700,000
Commercial	<u>8,053,500</u>	<u>14,157,000</u>	<u>14,157,000</u>
Total	\$486,541,562	\$ 972,605,826	\$1,427,774,000
Personal Property (currently 8.5% of land and improve- ment in City)	<u>\$ 41,356,033</u>	<u>\$ 82,671,495</u>	<u>\$ 121,360,790</u>
Total	\$527,897,595	\$1,055,277,321	\$1,549,134,790
Assessed Value =	\$131,974,399	\$ 263,819,330	\$ 387,283,698
Deduct Current Assessed Value of Property*	<u>\$ 1,451,857</u>	<u>\$ 1,451,857</u>	<u>\$ 1,451,857</u>
Incremental Assessed Value	\$130,522,542	\$ 262,367,473	\$ 385,831,841
Net Property Tax Revenue:**	\$ 721,007	\$ 1,449,318	\$ 2,131,355

The figures above suggest that the net property tax revenue expected as a result of the program as outlined will reach \$2,131,355 a year (in 1980-81 dollars) at the end of phase 3. This figure is equal to about two-thirds the current revenue from this source for the existing tax base in the City of Chula Vista - \$3,149,620 a year.

(2) Sales Tax Revenue. The sales tax revenue potential resulting from the development and occupancy of the EastLake project is a function of

*As per 1980-1981 tax bills.

**\$0.5524/\$100 assessed value.

the number of households in the project, their income level, their retail expenditure potential, and the portion of their total retail expenditures which are made within the City of Chula Vista. An analysis of the average housing value for each phase provides a basis for estimating the income of the households that constitute the population to absorb the units. Generally, the average annual income for buyers of the product being planned for the EastLake project will be in the \$35,000 a year range. Households in this income range typically spend 21.0 percent of their income for taxable retail purchases. This percentage is based on the Consultant's calculation of the distribution of expenditures by income group reported in the Consumer Expenditure Survey: Integrated Diary and Interview Survey Data, 1972-73, published by the U.S. Department of Labor, Bureau of Labor Statistics, 1978 (Bulletin 1992). These calculations result in an estimate of total retail expenditure potential supported by the anticipated population of the EastLake project as shown below:

	<u>End of Phase 1</u>	<u>End of Phase 2</u>	<u>End of Phase 3</u>
Average Housing Value \$	107,127	\$ 104,427	\$ 107,315
Assume Average Income	\$ 35,709	\$ 34,809	\$ 35,772
Average Annual Spending for Taxable Items = 21.0%	\$ 7,499	\$ 7,310	\$ 7,512
Total Annual Taxable Retail Expenditure Potential	\$29,291,094	\$57,295,780	\$88,641,600

Because of the high income profile dictated by the cost of housing anticipated for the EastLake project, the population will include many

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consumers who will make substantial portions of their retail expenditures outside the City limits of Chula Vista. In order to be conservative, we have assumed that 50.0 percent of the total retail expenditure potential resulting from the assumptions shown above will be made within the City of Chula Vista. This is a conservative estimate. In the 1975 Special Census, 78.0 percent of Chula Vista's residents indicated that they shopped within the City of Chula Vista for purposes other than groceries, sundries, etc. The proximity of the site to Bonita Plaza, however, suggests that there will be an outleakage of retail expenditure potential of the population of the EastLake project. As a result, the 50.0 percent outleakage assumption is probably a reasonable estimate for purposes of these projections, if not conservative.

City revenue resulting from the City's 1.0 percent share of total taxable retail sales within the City is, therefore, as follows:

At the end of Phase 1: \$146,455 a year

At the end of Phase 2: \$286,479 a year

At the end of Phase 3: \$443,208 a year

Another approach to estimating the retail sales tax revenue to the City is to analyze the commercial development planned for the site and project the revenue potential on the basis of anticipated sales per square foot. The phasing of the commercial development at the site will involve 123,900 square feet during phase 1, rising to 217,800 square feet in phases 2 and 3. At average sales of \$135 per square foot (which is conservative) and on the assumption that 63.0 percent of the total

sales volume is taxable*, the total taxable retail sales implied by 123,900 square feet of commercial development is \$10,537,695 a year producing, \$105,377 a year of tax revenue to the City. When the commercial phases are completed, the tax revenue to the City from the commercial development alone will amount to \$185,239 per year (in 1980-1981 prices).

This basis for estimating produces an expectation that the commercial facilities within the project itself will constitute 72.0 percent of our estimate of the total sales tax revenue to the City resulting from the expenditures of new residents by the end of phase 1, 64.7 percent of the total sales tax revenue projected to the City as a result of the site population's expenditures by the end of phase 2, and 41.8 percent of the total retail sales tax revenue to the City projected as a result of expenditures of the project's population by the end of phase 3. This suggests, therefore, that other stores in Chula Vista will benefit from the additional retail sales expenditures of the EastLake project. If indeed this is the case (which appears to be a conservative assumption) it will stimulate the development of additional retail facilities within the City of Chula Vista.

(3) Property Tax Revenue from Additional Retail Space Induced by an Expanded Consumer Support Base.

The total taxable retail sales derivative of the increased population implied by the development of the EastLake project,

*These assumptions are based on: a theoretical mix of stores most likely to be found on this type of center; sales figures by type of store from the Urban Land Institute's Dollars and Cents of Shopping Centers, 1978, inflated to 1980-1981 dollars; and information from the California Franchise Tax Board regarding typical percentages of sales which are taxable for food stores, drug stores, etc.

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which will be spent in the City of Chula Vista but which will not be absorbed by the retail outlets built within the project itself, will amount to \$4.1 million per year at the end of phase 1, \$10.12 million at the end of phase 2, and \$25.8 million at the end of phase 3.

On the assumption that taxable retail sales per square foot will average \$85 per year, the expenditure of EastLake residents at retail sites in the City of Chula Vista, but outside the limits of the project itself supports the following amounts of additional retail development within the City limits of Chula Vista, but outside the EastLake project:

At the end of Phase 1:	48,328 square feet
At the end of Phase 2:	119,106 square feet
At the end of Phase 3:	303,493 square feet

If the market value per square foot of additional retail space developed in response to the expenditure potential of the EastLake residents is valued at \$65 per square foot, the implicit market value of additional retail space, the development of which is induced by the expenditures of EastLake residents, is as follows:

At the end of Phase 1:	\$ 3.1 million
At the end of Phase 2:	\$ 7.7 million
At the end of Phase 3:	\$19.7 million

Adjusting these data to include an allowance for taxable personal property, (using an 8.5 percent factor, which is low as it is an overall average for all types of development not just commercial) produces an estimate of the assessed value implied by this element of retail development as follows:

At the end of Phase 1: \$ 852,083
At the end of Phase 2: \$2,099,988
At the end of Phase 3: \$5,350,961

Applying an implicit tax rate of \$0.8083/\$100 assessed value (that applicable within the current City limits of Chula Vista based on the 1980-81 budget) produces total annual revenue potential from this source as follows:

At the end of Phase 1: \$ 6,887 a year
At the end of Phase 2: \$16,974 a year
At the end of Phase 3: \$43,252 a year

In addition to the sales tax revenue and ad valorem tax revenue derivative of both the on-site development for commercial facilities and the potential increases in the off-site retail sector induced by the expenditures of the residents of the projects, new business supported by the expenditures of project's residents will also generate business license taxes.

It could be argued that the increased retail expenditure potential represented by the residents of EastLake will simply be a net benefit to existing merchants. This is not likely to be the case since the increased population base will also increase the threshold levels of consumer support within the general trade area permitting more types of retail establishments to be feasible. Actually, there should be a greater than one-to-one relationship between increase in consumer expenditure potential and the increase in facilities for a community that already has achieved the threshold population level of Chula

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Vista's trade area. This argument is reinforced by comparison of taxable retail sales per establishment in Chula Vista vis-a-vis San Diego County as a whole (Exhibit III-2). In all but four categories, Chula Vista's retail establishments enjoy higher sales per establishment than is true for the County as a whole, suggesting that there is not a substantial amount of excess capacity within Chula Vista's existing retail sector. As a result, it is defensible to argue that there is a one-to-one relationship at least between increases in the retail trade area support base and increases in the taxable value of retail facilities within the City of Chula Vista on the basis of the assumptions used, which appear to be realistic.

(4) Business License Taxes. Business license tax assessments in Chula Vista are based on a fee of \$25 per establishment plus \$3 per employee. The size distribution of firms in San Diego County shows an average of 8.9 employees per firm for office-type users, 20.4 employees per firm for industrial companies, and 12.8 employees per establishment for retail firms.*

The scale of nonresidential development within the EastLake project implies smaller users than is typical of the County as a whole. For purposes of this project, we have assumed the following size distribution of tenants in nonresidential elements in the EastLake project:

	<u>Employees</u>	<u>Square Feet Per Firm</u>
Offices	6.7	1,500
Industrial	10.2	5,700
Retail	9.6	5,500

*U.S. Department of Commerce, Bureau of the Census, County Business Patterns, 1978.

The nonresidential development plan for the EastLake project implies a distribution of office tenants and office employment as shown below:

	<u>End of Phase 1</u>	<u>End of Phase 2</u>	<u>End of Phase 3</u>
Number of Office Firms	113.3	338.0	338.0
Number of Office Employees	760	2,265	2,265

The employment figures thus derived are higher than those projected by other Consultants,* however, the higher estimates are felt to be more realistic based on this Consultant's experience and data sources regarding typical densities of employees.**

The average business license revenue per firm in the office portions of the EastLake development is \$45.10, suggesting total office user business license revenues as follows:

At the end of Phase 1:	\$ 5,110 per year
At the end of Phase 2:	\$15,244 per year
At the end of Phase 3:	\$15,244 per year

In an analogous fashion, the projection of taxable industrial businesses in the EastLake project itself for each of the three phases is as shown below:

	<u>End of Phase 1</u>	<u>End of Phase 2</u>	<u>End of Phase 3</u>
Number of Industrial Firms	89.9	186.4	201.8
Number of Industrial Employees	1,834	3,803	4,116

*The Environmental Data Base, page 52.

**Partially based on the Regional Land Use Forecasting System prepared by the Consultants for the San Diego County Comprehensive Planning Organization in March 1969.

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This distribution of taxable entities produces an estimated tax revenue of \$86.20 per year per firm from business license assessments. The revenue generated for the City as a result of this element is as follows:

At the end of Phase 1: \$ 7,750 per year
 At the end of Phase 2: \$16,068 per year
 At the end of Phase 3: \$17,395 per year

The retail development plan for the EastLake project will support the number of firms and employees shown below:

	<u>End of Phase 1</u>	<u>End of Phase 2</u>	<u>End of Phase 3</u>
Number of Retail Firms	22.6	39.6	39.6
Number of Retail Employees	216.3	380.2	380.2

The business license revenue applicable to this distribution of taxable entities averages \$53.80 per establishment, generating the following revenue potential from business licenses related to retail development within the EastLake project:

At the end of Phase 1: \$1,212 per year
 At the end of Phase 2: \$2,131 per year
 At the end of Phase 3: \$2,131 per year

In addition, the retail expenditures of EastLake residents in stores other than those located on the site itself will support an increase in the number of retail firms in Chula Vista as shown below:

	<u>End of Phase I</u>	<u>End of Phase 2</u>	<u>End of Phase 3</u>
Retail Square Footage (Off-site)	48,328	119,106	303,493
Number of Retail Firms (Off-site)	6.6	16.3	41.6
Number of Retail Employees (Off-site)	84.5	208.6	532.5

The revenue from business license assessments from this source will average \$63.40 per firm, generating the following distribution of business license revenue from this source:

At the end of Phase 1: \$ 418 per year
At the end of Phase 2: \$1,033 per year
At the end of Phase 3: \$2,637 per year

In total, business license taxes will generate the following revenue to the City:

At the end of Phase 1: \$14,490 per year
At the end of Phase 2: \$34,476 per year
At the end of Phase 3: \$37,407 per year

(5) Utility Users Tax. The utility tax in Chula Vista currently is based on a charge of \$0.0025 per KWH for electricity, \$0.00919 per therm for natural gas and 5.0 percent of the gross billing for telephone usage.

Residential use of electricity averages 425 KWH per unit per month or 5,100 KWH per year,* producing a revenue potential of \$12.75 per unit per year from electricity taxes. Gas usage averages 70 therms per unit

*San Diego Gas and Electric Company estimates.

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per month or 840 therms per year, producing revenue of \$7.72 per unit per year. In total, these two sources of revenue will generate approximately \$20.47 in utility user taxes per unit per year for the City of Chula Vista.

Applying this revenue estimate to the number of units expected to be completed and occupied at the end of each phase, produces the following revenue estimate from utility user taxes on gas and electricity related to the residential elements within EastLake:

At the end of Phase 1:	\$ 79,956 per year
At the end of Phase 2:	\$160,444 per year
At the end of Phase 3:	\$241,546 per year

Retailers use of gas and electric energy is estimated to be 15 KWH per square foot per year and 0.75 therms per square foot per year. Applying the tax rates noted above to these usage figures estimated by the San Diego Gas and Electric Company, produces an estimate of utility users' tax revenue to the City of Chula Vista of \$0.0444 per square foot per year for retail commercial establishments.

The City revenue potential from this source is as follows:

At the end of Phase 1:	\$5,501 per year
At the end of Phase 2:	\$9,670 per year
At the end of Phase 3:	\$9,670 per year

Analysis of utility usage by the City of Los Angeles* shows an estimate of electric and gas usage for office space of 34.2 KWH per square foot per year and 0.042 therms per square foot per year. Application of the appropriate tax rate to these utilization figures

*City of Los Angeles, EIR Manual for Private Projects, August 1975.
(SDG&E had no usage estimates for office or industrial projects.)

generates an estimate of City revenues from this source of \$0.0859 per square foot per year from office tenants. The total square footage of office space planned for the EastLake project supports an estimate of revenue from this source as follows:

At the end of Phase 1:	\$14,603 a year
At the end of Phase 2:	\$43,551 a year
At the end of Phase 3:	\$43,551 a year

Analysis of utility usage by industrial firms as estimated by the City of Los Angeles suggests that a reasonable average for light industrial users in multi-tenant facilities is 50.1 KWH per square foot per year of electrical usage and 0.40 therms per square foot per year of natural gas consumption. Applying the utility tax rates noted above to these utilization estimates supports an estimate of City revenue from this source of \$0.12562 per square foot per year from industrial use of electric and gas utilities.

The industrial development planned for the EastLake project will, therefore, generate the following utility users' tax flows to the City of Chula Vista:

At the end of Phase 1:	\$128,761 per year
At the end of Phase 2:	\$266,943 per year
At the end of Phase 3:	\$288,926 per year

In addition, the induced development of retail facilities in Chula Vista, but outside the limits of the EastLake project (responding to the expenditure potentials of EastLake residents) generates an additional source of utility users' tax revenue as follows:

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At the end of Phase 1:	\$ 2,145 per year
At the end of Phase 2:	\$ 5,288 per year
At the end of Phase 3:	\$13,476 per year

The revenue from taxes on telephone bills was projected on the assumption that the average residential bill is \$20 per month per unit; the average commercial establishment telephone bill is \$50 per month per firm; and the average office and industrial establishment telephone bill is \$300 per month per firm.

Applying the 5.0 percent telephone usage tax to the anticipated number of residential units, commercial firms, and office and industrial tenants implied both by the development on-site and the induced development off-site within the City of Chula Vista supports an estimate of revenue potential from this source as follows:

At the end of Phase 1:	\$ 85,314 per year
At the end of Phase 2:	\$192,570 per year
At the end of Phase 3:	\$247,440 per year

In total, utility taxes will generate the following revenues to the City:

At the end of Phase 1:	\$316,280 per year
At the end of Phase 2:	\$678,466 per year
At the end of Phase 3:	\$844,608 per year

(6) Franchise Taxes. In addition to the direct utility user taxes, the City imposes a franchise tax on utility suppliers which in the 1980-81 budget is equivalent to about 33.33 percent of the total direct utility users' taxes. The franchise tax revenue, therefore, can be interpreted

as a function of the aggregate utility users tax revenue, producing the following estimates of franchise tax revenue to the City of Chula Vista:

At the end of Phase 1:	\$104,349 a year
At the end of Phase 2:	\$223,894 per year
At the end of Phase 3:	\$278,721 per year

(7) Real Property Transfer Taxes in Chula Vista relate to the value of the property being transferred - market value. In the 1980-81 City Budget, real property transfer taxes were estimated at a total of \$110,000. The assessed value in the City reported for the same budget period is \$389,642,337* implying a market value of \$1,558,569,348. The projected \$110,000 revenue from property transfer taxes represents .00070578 times market value. By the end of phase 3, the implicit market value for the program planned for the EastLake project is \$1,549,134,790. Applying this ratio to the projected market value suggests property transfer tax revenues of \$109,330 a year. It can be argued that multiplying the City of Chula Vista's current assessed value by four to achieve market value understates the market value because of the assessment rollbacks of Proposition #13. On the other hand, studies of buyer profiles at new tracts in Orange County and San Diego show a much higher turnover rate for new home buyers than is true for resale housing. This is principally due to the broad differential between interest rates on existing mortgages in housing that has been owned for a long time as compared with housing acquired fairly recently. We can expect, therefore, that the new product in the EastLake project will turn over significantly faster than the average turnover rate in Chula

*See adjusted assessed value figure in Appendix A.

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Vista composed of an integral of both new and resale real estate values. It is justifiable on this basis, therefore, to use an even higher estimate of City revenue from real property transfer taxes as applied to the EastLake project. To be conservative, the Consultants have elected to use the lower estimate.

Using this ratio in relationship to the assessed value implied by the development program planned for EastLake suggests the following revenue potential from real property transfer taxes:

At the end of Phase 1:	\$ 37,256 per year
At the end of Phase 2:	\$ 74,476 per year
At the end of Phase 3:	\$109,330 per year

(8) Per Capita Related City Revenues. Many City functions involve user fees. One way to estimate the revenue from this source is to calculate the existing level of such fees in relationship to the current population of the City. In addition, some City revenues are distributed from other taxing agencies on a per capita basis. The elements that are most effectively calculated on a per capita basis include the following amounts based on the 1980-81 Budget:

Animal Licenses	\$ 50,000
Bicycle Licenses	6,100
Fine, Forfeitures and Penalties	342,500
Alcoholic Beverage Licenses	39,500
Motor Vehicle Licenses	1,480,800
Cigarette Taxes	251,015
Animal Shelter Fees and Charges	28,100
Swimming Pool and Recreation Fees	67,500
Gas Tax Funds	<u>725,100</u>
Total	\$3,020,615

As no California Department of Finance population estimate for January 1, 1981 was available at the time this study was prepared, the

Consultant estimated the population of Chula Vista as of January 1, 1981 to be 84,500 persons, suggesting that these revenue sources average \$35.75 per capita.

Applying this revenue potential per capita to the estimated population derivative of the residential development of the EastLake project produces the following revenue estimates:

At the end of Phase 1:	\$ 360,289 per year
At the end of Phase 2:	\$ 722,937 per year
At the end of Phase 3:	\$1,088,409 per year

(9) Total Revenue. The total ongoing revenue potential to the City of Chula Vista implied by the assumptions described above, but excluding an allowance for non-recurring revenues such as those associated with building permits, plan check fees, engineering fees, etc., is, therefore, as follows:

At the end of Phase 1:	\$1,707,003 per year
At the end of Phase 2:	\$3,487,020 per year
At the end of Phase 3:	\$4,976,290 per year

In addition to the ongoing flows of revenue described above, the development of the EastLake project as planned will generate significant non-recurring cash flows. Building permit fees, plan check charges, engineering fees, etc., have been treated as covering costs of development services and are not calculated separately due to the preliminary nature of the plans for EastLake. The non-reimbursed costs in the planning, building and engineering functions have been treated as overhead as described in the following section of the report.

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The Park Land Acquisition and Development Fund is expected to receive \$1,176,850 over the span of the development as a result of the current fee structure for this source. This revenue is allocated for the capital costs of developing new parks and recreation areas within the development.

The residential construction tax will, on the basis of the planned development program for the site, produce non-recurring revenue of \$4,767,500. This revenue is available for capital improvement programs in the City.

The Traffic Signal Fund is imposed on the basis of \$7.00 per ADT likely to be generated by the development. Application of this coefficient to the estimated ADT reported in the traffic portion of the EIR produces an estimate of a total potential non-recurring revenue for the Traffic Signal Fund of \$1,050,560. This amount will cover all capital costs of traffic signals associated with development of the project as planned.

City Costs

(1) Police costs in the City of Chula Vista are allocated on a per capita basis. In the 1980-1981 budget, total police costs are projected to amount to \$4,161,530, or \$49.25 per capita.*

Applying this cost per capita figure to the anticipated population derivative of the development of the EastLake project as planned, suggests the following costs to the City of providing police services to the project:

*Using January 1, 1981 population estimate of 84,500.

At the end of Phase 1: \$ 496,342 per year
At the end of Phase 2: \$ 995,934 per year
At the end of Phase 3: \$1,499,416 per year

Officials in the City of Chula Vista Police Department do not anticipate that the additional police service requirements imply a need for extensive capital improvements directly attributable to the EastLake project itself.

(2) Fire protection costs. The City of Chula Vista currently allocates fire department operating costs on a per capita basis. The operating budget for the fire department in the City's 1980-1981 budget is \$2,116,410 or \$25.05 per capita.

Applying this cost coefficient to the population anticipated as a result of residential development in the EastLake project suggests the following fire protection costs attributable to the project itself:

At the end of Phase 1: \$252,454 a year
At the end of Phase 2: \$506,561 per year
At the end of Phase 3: \$762,647 per year

Development of the EastLake project may require construction of a new fire station in the EastLake area at some point during the development phasing. The estimated cost of the additional facility is \$350,000 - \$200,000 for the structure and \$150,000 for equipment. Although the new facility will probably not be developed until after completion of phase 1 of the development program, the debt service required to amortize a \$350,000 capital improvement was allocated evenly across all three phases. The average cost of debt service for the

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\$350,000 capital improvement on the assumption of 20-year debt maturity at 10.0 percent interest is \$37,374 per year.

(3) Public Works. The primary public works cost element on an ongoing basis is for street maintenance (including a pro-rata allowance for engineering administration). Allowances were also made for traffic signal and street light maintenance, as well as for street tree maintenance. There is a possibility that street light maintenance will be provided by a special district encompassing the EastLake project. In order to be conservative, however, the full cost of public works services to be provided to the project has been allocated to the project at this stage in the analysis.

Currently the total amount in the 1980-81 budget for the City of Chula Vista for the services described above is \$1,932,055 a year (Exhibit III-3) to provide services to over 215 miles of paved streets.* This averages \$8,986 per street mile per year. The cost of providing public work services to the roads and streets in the EastLake project are likely to be somewhat less than the average for the City of Chula Vista because newly developed areas do not have as many trees to maintain. In order to be conservative, however, the full cost was allocated on the basis of \$8,986 per mile.

The project as planned will ultimately involve as estimated 62.9 miles of streets and roads** requiring Public Works Department maintenance. Not all of the streets will be completed, however, until the completion of phase 3. The public works costs assignable to the

*Street mileage projected in 1980-1981 Budget.

**Estimated by Consultants based on average street densities and projected land use mix in the development.

project, therefore, rise as the project matures and amount to the following:

- At the end of Phase 1: \$202,185 per year (assumes 22.5 miles of streets)
- At the end of Phase 2: \$413,356 per year (assumes 46.0 miles of streets)
- At the end of Phase 3: \$565,219 per year (assumes 62.9 miles of streets)

Sewer system operations are included under the public works operation. All costs for sewer system and pump station maintenance are covered by fees imposed as a user charge.

Ambiguity concerning the amount of capital improvement for which the City might be obligated as a result of the EastLake project, makes it difficult to prepare a definitive benefit cost study including these allowances. Therefore, capital improvements for the public works sector were excluded from the analysis.

(4) Parks and Recreation Costs. The parks and recreation budget for 1980-81 for the City of Chula Vista is \$1,894,770. Part of this, however, is reimbursed by golf course revenue which has not considered in the revenue section of the report. Deducting this leaves a net annual cost for general parks and recreation facilities operation of \$1,637,350 or \$19.38 per capita for the estimated 84,500 population of Chula Vista as of January 1, 1981.

Using a cost coefficient of \$19.38 per capita, the implied cost to the City of providing parks and recreation services to the population of the EastLake development is as follows:

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At the end of Phase 1:	\$195,312 per year
At the end of Phase 2:	\$391,902 per year
At the end of Phase 3:	\$590,024 per year

The capital costs of developing new parks and recreation facilities are recovered through the Park Land Acquisition and Development Fees which are assessed at the time the building permits are issued for residential units. As noted above, this will amount to \$1,176,850. In addition, the developers are required to dedicate 71.97 acres of land for park and recreation facilities.

Open space maintenance for the new development will be covered by special assessment districts which assess landowners for the cost of maintaining open space. Since the cost of maintaining open space will be self-liquidating through special districts, it does not affect the City budget. As a result, no allowance is made in this report for such costs and revenues.

(5) Library Costs. The 1980-1981 budget for Chula Vista's library system is \$988,320 or \$11.70 per capita.* Applying this cost coefficient to the expected population for the EastLake development suggests the following City cost for providing library services:

At the end of Phase 1:	\$117,913 per year
At the end of Phase 2:	\$236,597 per year
At the end of Phase 3:	\$356,207 per year

No capital investment is anticipated to provide a branch library in the EastLake area.

*Using January 1, 1981 population estimate of 84,500..

(6) City Overhead Costs. The costs of providing services summarized above represent an estimate of direct costs with no allowance for City overhead functions, such as City Council, City Manager, City Treasurer, City Attorney, etc. In the City of Chula Vista at present, overhead costs in the budget amount to 20.63 percent of the total budget or 26.0 percent of direct costs (Exhibit III-4). Included in this allowance is provision for the costs of operating the Planning, Building, and Engineering Department that exceed the revenues to these departments from fees. In 1980-1981, the Planning, Building, and Engineering Department functions will generate total costs that exceed the anticipated revenues from fees and charges of \$1,083,400 (Exhibit III-5). This represents 69.5 percent of the total yearly cost for these City functions - Planning, Building, and Engineering Departments. This non-recovered cost is included in the allowance for overhead noted above.

The total direct operating costs which are attributable to the project, and discussed in items (1) through (5) above, amount to the following:

- At the end of Phase 1: \$1,264,206 per year
- At the end of Phase 2: \$2,544,350 per year
- At the end of Phase 3: \$3,773,513 per year

Note, that the annualized capital cost of providing a fire station was excluded when determining the ongoing direct costs.

Applying a 26.0 percent overhead factor to these direct costs results in the following estimates of overhead costs:

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At the end of Phase 1: \$328,694

At the end of Phase 2: \$661,531

At the end of Phase 3: \$981,113

(7) Total Costs. The total annualized cost of providing City services to the EastLake development is projected to be as follows:

At the end of Phase 1: \$1,630,274 per year

At the end of Phase 2: \$3,243,255 per year

At the end of Phase 3: \$4,792,000 per year

EXHIBIT III-1

PROPERTY TAX RATE CALCULATION FOR EASTLAKE DEVELOPMENT*

1. Current distribution of EastLake property tax revenue

<u>EastLake TRA's</u>	<u>Agency</u>		
	<u>County</u>	<u>Special District</u>	<u>Other</u>
63015	.32325812	.013499900	.676741880
63055	.32397941	.011312920	.664707670
63118	<u>.32547174</u>	<u>.012997169</u>	<u>.661531091</u>
Average	.32423642	.01260333	.66766021

2. Current county/special district proportion of EastLake property tax revenue (-0.5%):

$.32423642 + .0126033 = 0.33683975$

3. City proportion of incremental property tax revenues generated by EastLake property:

$0.33683975 \times .41 = \underline{0.1381042975}$ or
approximately \$0.5524/\$100 assessed value.

*Based upon master property tax exchange agreement between the County of San Diego and the City of Chula Vista.

Source: Provided by City of Chula Vista.

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EXHIBIT III-2

1980 TAXABLE RETAIL SALES PER ESTABLISHMENT
(000)

	City of Chula Vista	San Diego County
Apparel Stores	\$ 422	\$ 241
General Merchandise Stores	4,037	2,447
Drug Stores	1,069	630
Food Stores	482	460
Packaged Liquor Stores	282	325
Eating and Drinking Places	269	243
Home Furnishings and Appliances	311	206
Building Materials and Farm Implements	618	621
Auto Dealers and Auto Supplies	536	1,148
Service Stations	853	927
Other Retail Stores	<u>180</u>	<u>196</u>
Total	\$ 527	\$ 410

Source: California State Board of Equalization.

EXHIBIT III-3

OPERATING COSTS FOR STREET MAINTENANCE, TRAFFIC AND RELATED FUNCTIONS
CITY OF CHULA VISTA 1980-1981 BUDGET

Item	Cost
Pro-Rata Engineering Administration (45.5%)	\$ 53,635
Traffic and Transportation Engineering	97,680
Traffic Signal and Street Light Maintenance	513,790*
Traffic Paint	156,820
Street Maintenance	549,540
Street Maintenance Materials	221,000
Street Sweeping	144,260
Street Tree Maintenance	<u>195,330**</u>
Total	\$1,932,055

Prorated over 215 miles of paved streets = \$8,986 per mile

*Street lighting may be covered by establishing a special district and charging a fee.

**It is expected that there will be fewer street trees per mile of street in newly developed areas than currently in City.

Source: 1980-1981 Budget of City of Chula Vista interpreted by interview with Mr. John Lippitt, City Engineer.

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EXHIBIT III-4

SUMMARY OF OVERHEAD COSTS - CITY OF CHULA VISTA 1980-81 BUDGET

Item	Cost
City Council	\$ 86,610
Boards and Commissions	28,300
Planning Commission	4,030
Community Promotions	79,720
City Attorney	146,870
City Clerk/Elections	102,140
City Administration	290,200
Policy Analysis and Program Evaluation	94,790
Data Processing (Net)	95,710*
Personnel - Operations	192,790
Volunteer Service	1,520
Finance Department	466,020
Insurance	248,810
Non-Departmental	123,910
Building Maintenance	558,160
Communications Division	69,180
Overhead from Building & Housing (70% Total) applies to Building Maint. & Comm. Dev.	50,015
Non-Reimbursed Planning, Building, Engineering	<u>1,083,400**</u>
Total Overhead Costs	\$3,722,175
Total Budget Expenditures	\$20,593,720
Less: Debt Service Funds	\$ 181,750
Gas Tax Construction Funds	371,000
Capital Improvement Funds	1,051,000
Block Grant Funds	<u>1,131,000</u>
Total Exclusions	<u>\$ 2,553,000</u>
Total Budget Subject to Overhead	\$18,040,720
Overhead =	20.63% of Total Budget of \$18,040,720
	26.00% of Direct Cost of \$14,318,545
	*\$175,760 less contract service to other Jurisdictions (\$80,050)
	**See Exhibit III-5

Source: Alfred Gobar Associates, Inc. based on City of Chula Vista
1980-81 Budget

EXHIBIT III-5

1980-1981 PLANNING, BUILDING AND ENGINEERING COSTS AND REVENUES
(Related to Development Function Only)Costs

Building & Housing	Administration	\$ 21,525	(30% Total)
	Building Inspection	269,990	
Engineering	Adminstration	64,245	(54.5% Total)
	Design & Construction	394,610	
	Planning & Environment Review	136,810	Covered by Fees
	Land Development	200,860	Covered by Fees
Planning	Operations	<u>470,780</u>	
		\$1,558,820	

Revenues

Building, Plumbing, Electric, Housing Permits	\$ 208,000
Zoning, Subdivision, Filing Fees, Etc.	120,920
Plan Check, Engineering, EIR Fees, Etc.	<u>146,500</u>
	\$ 475,420
Net Non-Reimbursed:	\$1,083,400

Revenues Cover 30.5% of Total Costs

Source: City of Chula Vista 1980-1981 Budget

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APPENDIX A

CITY OF CHULA VISTA ASSESSED VALUE

PORT AP490050-1 PGM AP5664 COUNTY OF SAN DIEGO PAGE NO. 353
 COMBINED VALUATIONS FISCAL YEAR 1980-81 OFFICE OF THE AUDITOR AND CONTROLLER RUN DATE 08/06/80
 CHULA VISTA CITY TAX ***IMPACTED BY COMMUNITY REDEVELOPMENT*** FUND NO. 6019-00

ASSESSED VALUATIONS ARE UNEQUALIZED AS THE ASSESSMENT APPEALS BOARD HAS NOT COMPLETED HEARINGS FOR THE LOCALLY ASSESSED VALUATIONS AND EQUALIZED STATE ASSESSED VALUATIONS WILL NOT BE AVAILABLE UNTIL AFTER THE 20TH DAY OF AUGUST. THE ASSESSED VALUATIONS REPORTED HERE SHOULD BE USED FOR RATE COMPUTATION. IN AS MUCH AS CHANGES TO THE STATE ASSESSED VALUATIONS GENERALLY ARE MINIMAL, NO FINAL VALUATION REPORT WILL BE SENT TO YOU UNLESS YOUR DISTRICT HAS A MAJOR VALUATION CHANGE.

PERSONAL PROPERTY	LAND IMPROVEMENTS	VALUATION	ALL OTHER EXEMPTIONS	GROSS AV LESS EXEMPTIONS	BUS INV HOMEOWNERS EXEMPTIONS	NET VALUATION
2,308,190	41,301,330	6,224,120	50,333,640	50,333,640		50,333,640
125,866,305	231,327,892	17,811,343	374,985,540	365,905,659	25,613,626	340,291,837
128,654,495	272,629,222	24,035,463	425,319,160	9,080,081	416,239,099	25,613,626
3,645,251	10,117,122	13,762,373	23,535	13,738,838	1,400	13,737,438
128,654,495	276,274,473	34,152,585	439,081,553	9,103,616	429,977,937	25,613,626
404,362,911						404,362,911

NET TOTAL SECURED VALUATIONS	390,625,473	AMOUNT TO BE RAISED BY TAXES INCL HOPIR + BIIR
LESS DELINQUENCY ALLOWANCE	2%	7,812,599
NET AFTER DELINQUENCY	382,812,964	
PLUS TOTAL SECURED HOPIR + BIIR	25,613,626	
PRELIM ADJ SECURED VALUATION	408,426,590	
LESS REDEVELOPMENT IMPACT	22,884,104	
ADJ SEC VAL FOR RATE COMPUTATION	385,542,486	ADJ AMOUNT TO BE RAISED BY SECURED TAXES 112,284

MAX. RATE:	COMPUTED RATE:	.029
PRIMARY OF REIMBURSED TAXES FOR CONTROL AND REPORTING	UNSEC HOPIR	111,016
	SEC HOPIR	7,428
	TOTAL HOPIR	118,444
	UNSEC BIIR	6,636
	SEC BIIR	-
	TOTAL BIIR	6,636
	PROOF TOTAL	125,080

PROJECT ELIGIBLE	SECURED INCREMENT	UNSECURED INCREMENT	PROJECT NOT ELIGIBLE
131-01 CRULA VISTA BAYFRONT REDEVELOPMENT PROJECT	17,963,266+	3,543,697-	16,419,569+
131-02 TOWN CENTRE REDEVELOPMENT PROJECT	2,920,830+	508,757-	2,412,073+
TOTAL POTENTIALLY ELIGIBLE AV INCREMENTS	22,884,104+	3,652,654-	19,031,450+
Corrected 2-17-81	Bayfront 29,856,057	6,789,148	35,645,205
RFE	T.C. 3,018,052	672,343	3,690,395
	Totals 32,874,109	7,461,491	40,335,600

TOTAL ADJUSTED TAX BASE = \$429,977,937 - 40,335,600 = \$389,642,337

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APPENDIX B

LIST OF PERSONS CONTACTED REGARDING INFORMATION FOR ANALYSIS

-
1. Doug Reid, Environmental Review Coordinator, Planning Department, City of Chula Vista
 2. Chief Bill Winters, Director of Safety Services, City of Chula Vista
 3. Aubrey Kesterson, Parks and Recreation Department, City of Chula Vista
 4. John Lippitt, City Engineer, City of Chula Vista
 5. Gordon Grant, Director of Finance, City of Chula Vista
 6. Gene Asmus, Assistant City Manager, City of Chula Vista, (thru Mary Ann Barbieri of the City Manager's Office)
 7. Bob Hope, Energy Department, San Diego Gas & Electric Company
 8. Gerald M. Boyle, Western Salt Company
 9. Bob Frasier, Assessors Office, San Diego County
 10. Jim Griego, Property Tax Coordinator, Auditor and Controllers Office, San Diego County
 11. Ann Nussbaum, Senior Environmental Planner, Westec Services (provided data from developer re: housing types, housing prices, absorption projections, etc.)