

EL RANCHO DEL REY

FINAL  
ENVIRONMENTAL IMPACT REPORT

EIR-78-2

ISSUED BY THE  
ENVIRONMENTAL REVIEW COMMITTEE

DECEMBER 23, 1977

CERTIFIED BY THE  
PLANNING COMMISSION

February 22, 1978

TABLE OF CONTENTS

	<u>page</u>
1.0 Introduction	1
2.0 Executive Summary	4
3.0 Project Setting	7
3.1 Geology	7
3.2 Soils	15
3.3 Drainage Patterns	18
3.4 Land Form	21
3.5 Climate	21
3.6 Air Quality	23
3.7 Noise	26
3.8 Biology	28
3.9 Archaeology	42
3.10 Historical Resources	54
3.11 Schools	55
3.12 Open Space/Parks	56
3.13 Police/Fire/Other Services	57
3.14 Utility Services	60
3.15 Transportation/Access	64
3.16 Socio-Economic Factors	67

4.0	Project Description	70
4.1	Text of the Land Use Plan	
	I. Introduction	
	II. Goals, Objectives, Policies & Principals.	
	A. Goal	
	B. General Objectives	
	C. Statements of Policy	
	D. Principals	
4.2	Land Use Plan	83
5.0	Impact Analysis	84
5.1	Geology	84
5.2	Soils	89
5.3	Land Form	90
5.4	Drainage	94
5.5	Water Quality	97
5.6	Climate	99
5.7	Air Quality	101
5.8	Noise	105
5.9	Biology	114
5.10	Archaeology	118
5.11	Paleontology	122
5.12	History	122
5.13	Schools	123
5.14	Open Space/Parks	125

TABLE OF CONTENTS (Cont.)

	<u>page</u>
5.15 Police	126
5.16 Fire	128
5.17 Sewer	129a
5.18 Utility/Energy & Resource Consumption	131
5.19 Transportation/Access	138
5.20 Social Factors	144
5.21 Tax Structure	147
6.0 Unavoidable Adverse Impacts	155
7.0 Alternatives	158
8.0 Local Short-Term use vs. Long-Term Productivity	161
9.0 Irreversible Changes	164
10.0 Growth Inducement	165
11.0 Organizations & Persons Consulted	166
12.0 Comments on Draft EIR	
12.1 List of Agencies & Persons commenting on the Draft EIR	167
12.2 Written Comments	168
12.3 Testimony at public hearing of Feb. 1, 1978	178
13.0 Response to Comments	202

## TABLES

<u>Number</u>	<u>Description</u>
3-1	Anticipated Ground Shaking
3-2	The Mercalli Intensity Scale
3-3	Soil Properties
3-4	Existing Air Quality
3-5	Noise Survey Results
3-6	Plant Species Evaluation Code
3-7	Archaeological Site Comparisons
3-8	Current Traffic Volumes
3-9	Demographic Data
3-10	Housing Data
3-11	Dwelling Unit Composition
5-1	Pollutant Emission from Mobile Sources
5-2	Pollution Emission from Stationary Sources
5-3	Incremental Increase - Total Air Basin
5-4	Incremental Increase - Chula Vista Contribution
5-5	Construction Equipment Noise Level
5-6	1990 Traffic Noise Levels
5-7	Traffic Generation Factors
5-8	Total Traffic Generalized
5-9	City Revenues due to Project
5-10	Revenue Assumptions
5-11	City Expenses due to Project
5-12	Expense Assumptions

TABLES (Cont.)

<u>Number</u>	<u>Description</u>
5-13	Revenue/Expense Summary
5-14	School District Income
5-15	School District Expenditures
5-16	Property Tax Cost/Revenue

## FIGURES

<u>Figure No.</u>	<u>Description</u>
1-1	Regional Locator Map
1-2	Sub-Regional Locator Map
3-1	Fault Location Map
3-2	Drainage Basin Map
3-3	Air Quality Isopleth Map
3-4	Noise Receptor Site Map
3-5	Areas of Potentially Significant Vegetation
3-6	Generalized Locations of Archaeological Sites
3-7	Archaeological Artifacts
3-8	Archaeological Artifacts
4-1	Land Use Plan
5-1	1990 $L_{dn}$ Stations
5-2	Project Related Traffic Distribution
5-3	1990 Estimates Traffic Volumes

RESOLUTION NO. EIR-78-2

RESOLUTION OF THE CITY PLANNING COMMISSION  
ADOPTING AN ENVIRONMENTAL IMPACT REPORT

WHEREAS, pursuant to a request of the City Council the Planning Department of the City of Chula Vista prepared comprehensive amendments to the El Rancho del Rey General Development Plan and Schedule of 1970, and

WHEREAS, the Environmental Review Section of the Planning Department prepared a Draft Environmental Impact Report to analyze the potential impacts of the above noted project, and

WHEREAS, the Environmental Review Committee of the City of Chula Vista issued said Draft Environmental Impact Report for agency and public review on December 23, 1977, and

WHEREAS, a notice of availability of said Draft Environmental Impact Report was given through a newspaper of of general circulation on December 25, 1977, and

WHEREAS, said notice of availability was also mailed to all property owners within 300 feet of said project, and

WHEREAS, a notice of completion was filed with the Secretary of Resources for the State of California, and

WHEREAS, the Planning Commission of the City of Chula Vista held a public hearing on said Draft Environmental Impact Report on February 1, 1978, and

WHEREAS, the Environmental Review Section of the Planning Department prepared modifications of said Draft Environmental Impact report which, along with all comments on the Draft Environmental Impact Report and a response to said comments, was presented to the City Planning Commission as the final Environmental Impact Report on said project.

NOW THEREFORE BE IT RESOLVED AS FOLLOWS:

From the facts presented to the Planning Commission, the Commission finds that EIR-78-2 Evaluating the impacts of the revised General Development Plan for El Rancho del Rey has been prepared in compliance with the California Quality Act of 1970, as amended, the California Administrative Code, and the Environmental Review Policy of the City of Chula Vista, and hereby certifies that the Commission has reviewed the information in the Environmental Impact Report and will consider this information as it reaches a decision on the project.

PASSED AND APPROVED BY THE CITY PLANNING COMMISSION OF CHULA VISTA, CALIFORNIA this 22nd day of February, 1978 by the following vote, to-wit:

AYES: Commissioners Renneisen, Pressutti, Chandler, Smith, G. Johnson and O'Neill  
NOES: None  
ABSENT: Commissioner R. Johnson

ATTEST:

Walter M. Lopez  
Secretary

George F. Chandler  
Chairman

EL RANCHO DEL REY

EIR-78-2

1.0 INTRODUCTION

It is the purpose of this Environmental Impact Report to provide an initial environmental impact analysis of the development of the subject property in accordance with a revised General Development Plan being proposed by the Planning Department of the City of Chula Vista. It is intended that as more precise development plans are submitted for consideration, more detailed analysis of each project element will be undertaken. This requirement shall be made if more information is available or if specific proposals do not adhere to the policies or mitigation contained in this document.

Persons reviewing this document should keep in mind the fact that information provided herein is, under state law, informational in nature. It is the responsibility of governmental agencies to consider this environmental information as they reach a decision on the project and where feasible avoid any significant environmental impacts that are identified in this EIR.

This report has been prepared by the Environmental Review Section of the Planning Department, in cooperation with other City Departments and other agencies. It is intended to fulfill the requirement of the California Environmental Quality Act of 1970 and the Environmental Review Policy of the City of Chula Vista.

## 2.0 EXECUTIVE SUMMARY

The proposed project, a revision to the El Rancho del Rey General Development Plan, would result in substantially less adverse impacts than the existing General Development Plan. There would still, however, exist a potential for significant impacts, many of which can be mitigated to an insignificant level.

This project is being proposed in an area of geologic hazard. Ground rupture along the La Nacion fault is possible although this fault is not classified as "active". Regulation of development in accordance with the recommendations of geologists relative to setbacks from these fault zones will insure that no structures are exposed to substantial hazards.

The site will be subject to earthquake induced ground shaking similar to most of California.

The project site contains alluvial and expansive soils. Standard regulations of the grading of the site will mitigate any potential problems.

There will be an incremental increase in water pollutants as the area is urbanized. This impact is not considered significant considering the size of overall drainage basins involved and its level of development.

Urbanization of the site will result in a substantial increase in runoff. Existing and planned facilities on and off-site will discharge this runoff in a safe and non-hazardous manner.

The proposed development of this site will result in substantial changes in land form which cannot be avoided. In order to provide building sites for the proposed uses, and adequate access substantial grading will be required. This necessary earthwork can be accomplished safely

and economically within the framework of current technology.

There will be an unavoidable change in the micro climate of the area. This minor change is not thought to be significant.

The proposed development will generate a substantial increase in traffic. The impact of this increase will be mitigated through the provision of necessary public rights-of-way and public improvements.

The increased traffic associated with the project will be accompanied by increased vehicle emissions adding pollutants to the regional air cell. If these trips were generated at a greater distance from existing services, the impact would be greater.

The traffic increases will also result in an increased noise level. The impact on the residents of the project can be reduced to an insignificant level through setbacks, insulation and shielding techniques.

Several alternative street networks have been considered (see Section 5.19-Transportation/Access). The Director of Public Works recommends adoption of Alternative "c" which provides a network having greater capability to accommodate anticipated traffic loadings with minimal congestion.

The grading activities necessary to implement the project will result in the removal of the natural vegetation except for those areas to be retained in their natural state. This will cause the migration of the animal life to the east; however, many individuals will be lost through reduced food supply and increased predator activity.

The loss of vegetation cover includes rare and endangered species, This will be partially off-set by the retention of natural open space and the transplanting of some species.

There are several minor to moderately important archaeological sites on this property. Mitigation of the potential impact on these resources can be accomplished through field work, report preparation and recordation. There are no historical sites on the property.

The increased student population of the area will require the provision of new schools to serve them. The school districts currently have no funds to provide these facilities. The developers of the project may be required to dedicate school sites and provide funds for temporary facilities.

The project includes several parks and areas of open space necessary to serve the population of the project. No significant impact is anticipated. The provision of other City and utility services can be accomplished with few problems.

Many of these unavoidable impacts cannot be mitigated to an insignificant level. This project is being proposed as a method to reduce the impacts of development of this property. If the project were to be implemented in accordance with the existing general development plan, more adverse impacts would result.

### 3.0 PROJECT SETTING

#### 3.1 Geology

The subject property is situated near the easterly edge of the Southern California coastal plain, and is underlain predominately by sedimentary rocks of Tertiary age. Bedrock formations found on the site are the "Otay" Formation of probably Miocene age and the Pliocene San Diego Formation. Surficial geologic units present are the Lindavista Formation of Pleistocene age and Holocene alluvial deposits. A brief description of the approximate areal extent and lithology of these units follows; more detailed lithologic descriptions and a geologic map of the subject property can be found in the Geologic Investigation, La Nacion Fault System, El Rancho del Rey Development (1972).

#### Otay Formation

The Otay Formation, of probably Miocene age (7 to 26 million years old), underlies large portions of the subject property within the area east of the La Nacion fault zone.

It is not found in surface outcrops west of the fault zone.

This unit forms the walls of the tributary canyons crossing the property, and contacts the overlying San Diego Formation at an elevation of approximately 400 to 410 feet (mean sea level).

The Otay Formation is believed to be more than 200 feet thick, and consists of a subangular, medium-grained, well-sorted, greenish-gray to light-gray, tuffaceous sandstone. A bentonite-bearing zone that has been mined commercially occurs on the upper portion of this unit. The Miocene age of the Otay Formation is based on its tuffaceous (containing small volcanic fragments)

nature -- the only known volcanic activity in this region having occurred during Miocene time.

#### San Diego Formation

Overlying the Otay Formation is the San Diego Formation of late Pliocene age (approximately 2.3 to 4 million years old). Prior to recent work in this area, the San Diego Formation included the above-described Otay Formation. However, as presently mapped, the San Diego Formation is restricted to a section up to about 100-120 feet thick consisting of light-gray to yellowish-gray, poorly cemented, micaceous sandstone and conglomerate, with dark yellowish-orange laminae, streaks and fossil remnants.

The San Diego Formation is the dominant bedrock unit westerly of the La Nacion fault zone. Within and east of the fault zone it crops out above elevation 400 to 410 and below approximately elevation 420 to 460 where it is unconformably overlain by the Lindavista Formation.

#### Lindavista Formation

The next youngest stratigraphic unit in this area is the early Pleistocene Lindavista Formation which forms a cap over the bedrock units. The Lindavista is a marine terrace deposit consisting of nearly flat-lying reddish-brown conglomerate reaching a thickness of approximately 30-45 feet in the project area.

#### Alluvium

Holocene alluvial deposits are found thinly mantling the bottoms of major drainages crossing the area. The alluvial materials

range from essentially impermeable clays to relatively pervious sands and gravels. This unit is generally less than 10 feet in thickness.

### Geologic Structure

The bedrock and surficial units on the subject property have not been subjected to intense folding and are essentially flat-lying. A regional dip of 2 to 10 degrees in a southerly direction is generally recognized in this area. Local variations in the magnitude and direction of strata inclination are evident near zones of faulting.

A number of fault traces have been mapped through the subject property. Figure 3-1 indicates the locations of mapped faults in the immediate project area. These faults form the La Nacion fault zone, which extends north to the vicinity of San Diego State University and south through San Ysidro and Tijuana.

The two most laterally extensive of these faults were delineated by Woodward-Gizienski and Associates; the remaining faults shown were mapped by Kennedy et al. (1975). The faults trend in a northerly to north-northwesterly direction and are inclined steeply to the west. It is estimated that there is a minimum of 210 feet of normal displacement along the La Nacion fault zone in the project area. At least 110 feet of this displacement has been interpreted to have occurred since late Pleistocene time (past 100,000 years.). Seismic risk associated with the La Nacion fault zone is discussed below.

### Geologic Hazards

Because a number of fault traces within the La Nacion fault zone pass through the subject property, the most significant geologic hazards are associated with potential seismicity. Demonstrated repeated offsets of Pleistocene strat indicate that the La Nacion

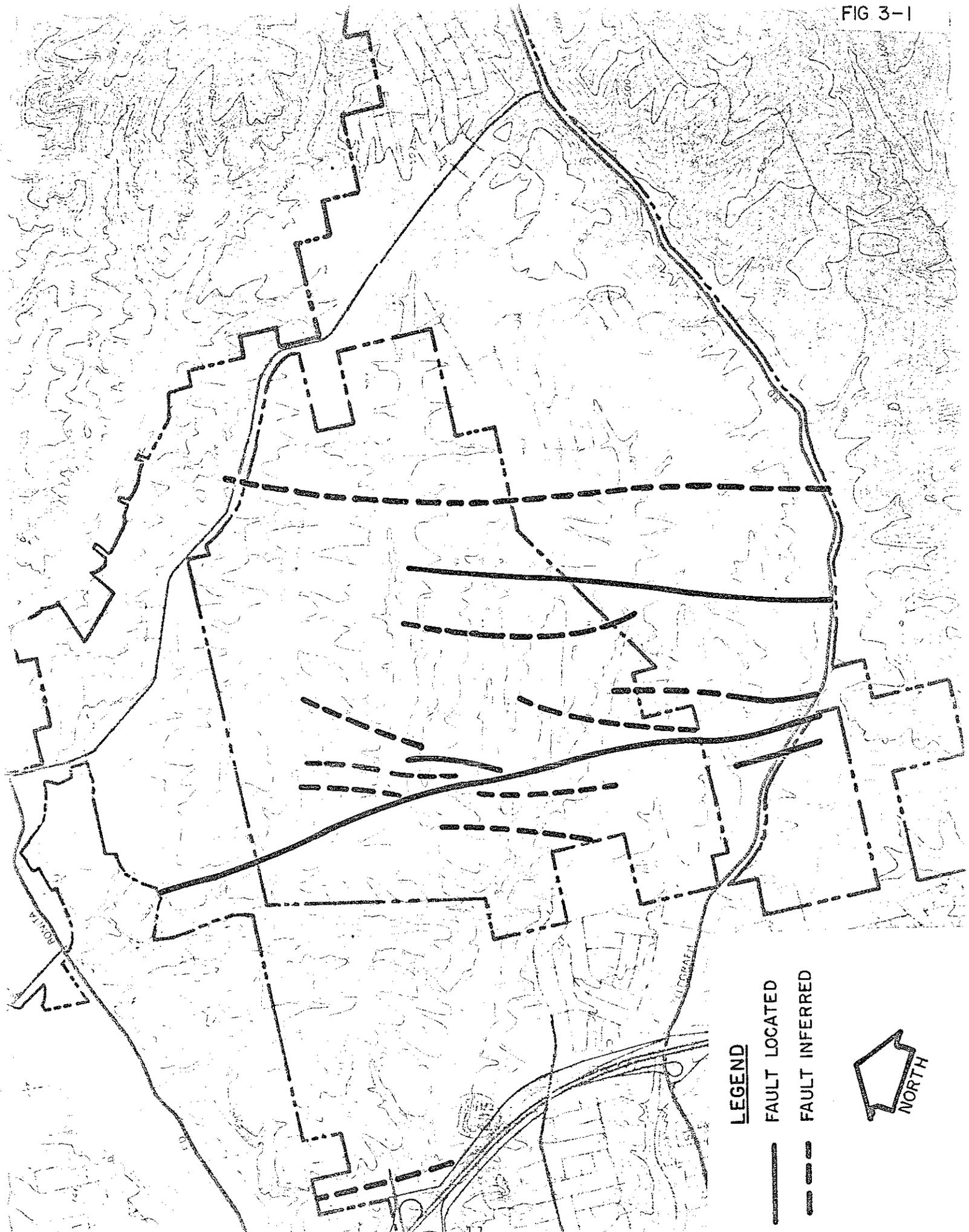
fault zone should be classified as "potentially active". Original analyses of the fault zone, concluded that it "should be considered a potentially active, if not active, fault." Subsequent radiocarbon age dating, however, indicates that alluvium as old as 13,375± 275 years overlying the fault is undisturbed. This serves to remove it from the "active" category as generally defined (that is, no evidence of movement apparent in the past 11,000 years). Nevertheless, four classes of seismic-related hazards should be considered: ground shaking, ground rupture, soil failure and seismic water waves.

#### Ground Shaking

Relatively rapid movement along a fault results in a release of energy in the form of seismic waves which are perceived as a shaking motion at the ground surface. Such shaking can range from a slight trembling to a violent oscillation of the ground. The severity of ground shaking impacts depends on several factors, including: earthquake magnitude and duration of shaking, distance from causative fault, local soil conditions, and building design and construction.

Table 3-1 lists the major active or potentially active faults of Southern California which could cause significant ground shaking at the subject site.

As shown, seismic events on the distant Elsinore, San Jacinto or San Andreas Faults are the most likely to affect the project area based on estimated recurrence intervals. Ground shaking equivalent to Modified Mercalli (M.M.) Intensity VI-VII (see



LEGEND

— FAULT LOCATED

- - - FAULT INFERRED



Table 3-1

Anticipated Ground Shaking Resulting from Earthquakes  
On Faults Significant to El Rancho Del Rey Site

Causative Fault Zone	Distance From Subject Site (miles)	Approximate Age of Most Recent Displacement	Maximum Probable Earthquake (Richter Magnitude)	Expected Firm Ground Acceleration (Gravity)	Ground Shaking Intensity On Average Soil (Modified Mercalli Scale)	Estimated Recurrence Interval (years)
Potentially Active Faults						
Rose Canyon/ San Diego Bay	6.5	11,000 to 100,000 years before present	5.8-6.2	0.3-0.35	VIII	300
La Nacion/ Sweetwater	0	11,000 to 100,000 years before present	5.8-6.2	0.5-0.6	VII-IX	300
Active Faults						
Elsinore	38	11,000 to 2x10 <sup>6</sup> years before present	6.9-7.3	0.1	VI-VII	100
San Jacinto	59	1968	6.9-7.3	0.05	V-VI	100
San Andreas	87	1968	8.0-8.5	0.06-0.08	VI	40-100
San Clemente	40	Unknown	7.0	0.1	VI-VII	Unknown

Table 3-1) would occur at the project site from the maximum probable earthquake on the Elsinore Fault. Significantly less likely but more damaging ground shaking (M.M. Intensity VIII-IX) could occur due to the maximum probable event on the potentially active La Nacion/Sweetwater fault zone.

#### Ground Rupture

Movement along a fault can result in displacement or rupture of the ground surface along the fault trace. Generally it is not technically or economically feasible to design and construct a building capable of withstanding seismic rupture of its foundation. Thus, development of an area traversed by a fault or fault zone is considered capable or potentially capable of displacement and is best avoided.

#### Soil Failure

During an earthquake, ground shaking tends to compact loose deposits of cohesionless soil. Such unstable soils may settle differently or fail by cracking. If the soils are water saturated, they may fail by liquefaction and lateral flow on gentle slopes, or by landsliding on steep slopes.

A condition of loose, poorly graded silty strata combined with a shallow water table does not appear to exist on the

Table 3-2  
 THE MERCALLI INTENSITY SCALE  
 (As modified by Charles F. Richter in 1956 and rearranged)

If most of these effects are observed	then the intensity is:	If most of these effects are observed	then the intensity is:
Earthquake shaking not felt. But people may observe marginal effects of large distance earthquakes without identifying these effects as earthquake-caused. Among them: trees, structures, liquids, bodies of water sway slowly, or doors swing slowly.	I	<i>Effect on people:</i> Difficult to stand. Shaking noticed by auto drivers. <i>Other effects:</i> Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Furniture broken. Hanging objects quiver.	VIII
<i>Effect on people:</i> Shaking felt by those at rest, especially if they are indoors, and by those on upper floors.	II	<i>Structural effects:</i> Masonry D* heavily damaged; Masonry C* damaged, partially collapses in some cases; some damage to Masonry B*; none to Masonry A*. Stucco and some masonry walls fall. Chimneys, factory stacks, monuments, towers, elevated tanks twist or fall. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off.	IX
<i>Effect on people:</i> Felt by most people indoors. Some can estimate duration of shaking. But many may not recognize shaking of building as caused by an earthquake; the shaking is like that caused by the passing of light trucks.	III	<i>Effect on people:</i> General fright. People thrown to ground. <i>Other effects:</i> Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes. Steering of autos affected. Branches broken from trees.	X
<i>Other effects:</i> Hanging objects swing. <i>Structural effects:</i> Windows or doors rattle. Wooden walls and frames creak.	IV	<i>Structural effects:</i> Masonry D* destroyed; Masonry C* heavily damaged, sometimes with complete collapse; Masonry B* is seriously damaged. General damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames racked. Reservoirs seriously damaged. Underground pipes broken.	XI
<i>Effect on people:</i> Felt by everyone indoors. Many estimate duration of shaking. But they still may not recognize it as caused by an earthquake. The shaking is like that caused by the passing of heavy trucks, though sometimes, instead, people may feel the sensation of a jolt, as if a heavy ball had struck the walls.	V	<i>Effect on people:</i> General Panic. <i>Other effects:</i> Conspicuous cracks in ground. In areas of soft ground, sand is ejected through holes and piles up into a small crater, and, in muddy areas, water fountains are formed.	XII
<i>Other effects:</i> Hanging objects swing. Standing autos rock. Crockery clashes, dishes rattle or glasses clink.	VI	<i>Structural effects:</i> Most masonry and frame structures destroyed along with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes and embankments. Railroads bent slightly.	
<i>Structural effects:</i> Doors close, open or swing. Windows rattle.		<i>Effect on people:</i> General panic. <i>Other effects:</i> Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land.	
<i>Effect on people:</i> Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers wakened.		<i>Structural effects:</i> General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.	
<i>Other effects:</i> Hanging objects swing. Shutters or pictures move. Pendulum clocks stop, start or change rate. Standing autos rock. Crockery clashes, dishes rattle or glasses clink. Liquids disturbed, some spilled. Small unstable objects displaced or upset.		<i>Effect on people:</i> General panic. <i>Other effects:</i> Same as for Intensity X. <i>Structural effects:</i> Damage nearly total, the ultimate catastrophe.	
<i>Structural effects:</i> Weak plaster and Masonry D* crack. Windows break. Doors close, open or swing.		<i>Other effects:</i> Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.	
<i>Effect on people:</i> Felt by everyone. Many are frightened and run outdoors. People walk unsteadily.	VII		
<i>Other effects:</i> Small church or school bells ring. Pictures thrown off walls, knickknacks and books off shelves. Dishes or glasses broken. Furniture moved or overturned. Trees, bushes shaken visibly, or heard to rustle.			
<i>Structural effects:</i> Masonry D* damaged; some cracks in Masonry C*. Weak chimneys break at roof line. Plaster, loose bricks, stones, tiles, cornices, unbraced parapets and architectural ornaments fall. Concrete irrigation ditches damaged.			

- \* Masonry A: Good workmanship and mortar, reinforced, designed to resist lateral forces.
- \* Masonry B: Good workmanship and mortar, reinforced.
- \* Masonry C: Good workmanship and mortar, unreinforced.
- \* Masonry D: Poor workmanship and mortar and weak materials, like adobe.

subject property, so seismic-induced soil failure by liquefaction is not likely. However, due to the relatively steep topography along the canyon walls, a potential for landsliding triggered by large earthquake exists.

#### Other Geologic Hazards

No landslides were noted or are reported to exist on the subject property, although several large landslides have been noted in similar geologic formations below the westerly edge of the Otay Mesa. The area is not considered to be susceptible to hazards resulting from areal land subsidence or volcanic activity.

### 3.2 Soils

Based on a number of test borings and field reconnaissance, surface and subsurface soils on subject site have been divided into five main units, as follows:

#### Residual Soil Mantle

This material which blankets much of the site is primarily composed of clayey soils, and ranges in thickness from 1 to greater than 10 feet. The thicker areas exist on the lower side slopes and in the upper ends of tributary canyons. It is generally thicker on the north-facing slopes. Over most of the site, the average thickness is on the order of 3 feet.

#### Alluvial Soils

These loose, compressible soils exist on the bottoms of all major canyons and extend part way up the tributary canyons. The materials range from clean sands to hard impermeable clays. Individual strata show very little vertical or horizontal continuity.

### Terrace Deposits

These soils consist of reddish-brown sandstone and conglomerate capping many of the ridges. The terrace materials are generally dense, non-expansive and moderately well hardened.

### San Diego Formation

San Diego Formation soils consist of sandstones and minor pebble conglomerates. The sandstone is fine-grained and poorly sorted. These soils are generally highly permeable and lack the expansive soils characteristic of the Otay Formation.

### Otay Formation

These soils are well suited, poorly indurated, tuffaceous sandstones which contain horizons of pure bentonite. The bentonite is highly expansive and forms a hummocky topography, known locally as mimamounds, where exposed at the surface. The U.S. Department of Agriculture Soil Conservation Service (1973) has mapped soils on the subject property as belonging predominantly to three soils series: the Linne Series, covering the canyon walls and much of the mesa surface; the Olivenhain Series, forming the crests of the mesas; and the Diablo Series, underlying many of the lower northernmost canyon slopes. A brief description of each of these series and their engineering properties is provided in Table 3-3.

### Ground Water

Ground water was encountered during the soil investigation of the site. Historically, groundwater of low quality has been extracted from deep wells in the San Diego and Otay Formations in the project area. Wells on mesa tops in the vicinity extend to depths of more than 1,000 feet and encounter groundwater with a total dissolved solids (TDS) content that ranges from 2,000

Table 3-3

Description of Soil Properties (USDA-SCS, 1973)

<u>Soil Series</u>	<u>Description</u>	<u>Shrink-Swell Behavior</u>	<u>Erodibility</u>	<u>Suitability For Topsoil</u>
Linne	Well-drained, moderately deep clay loams derived from soft, calcareous sandstone and shale.	Moderate	Moderate to Severe	Fair
Olivenhain	Well-drained, moderately deep to deep cobbley clay with a very cobbley clay subsoil.	Moderate	Severe	Fair to Poor
Diablo	Well-drained, moderately deep to deep clays derived from soft calcareous sandstone and shale.	High	Moderate	Poor

to 5,000 mg/l. Shallow wells, which tap alluvial aquifers, are situated in the valley of the Sweetwater River to the north.

Soil investigations in the project area indicate that the shallowest groundwater on the site occurs beneath the larger valleys at depths ranging from approximately 10 to 25 feet. This groundwater probably represents a localized, perched feature well above the regional water table.

No significant springs were noted on the property. However, it is likely that minor groundwater seepages will occur along the canyon walls near geologic contacts or fault planes directly following periods of heavy rainfall.

#### Mineral Resources

No economically viable mineral commodities are known in the immediate project area.

### 3.3 Drainage Patterns

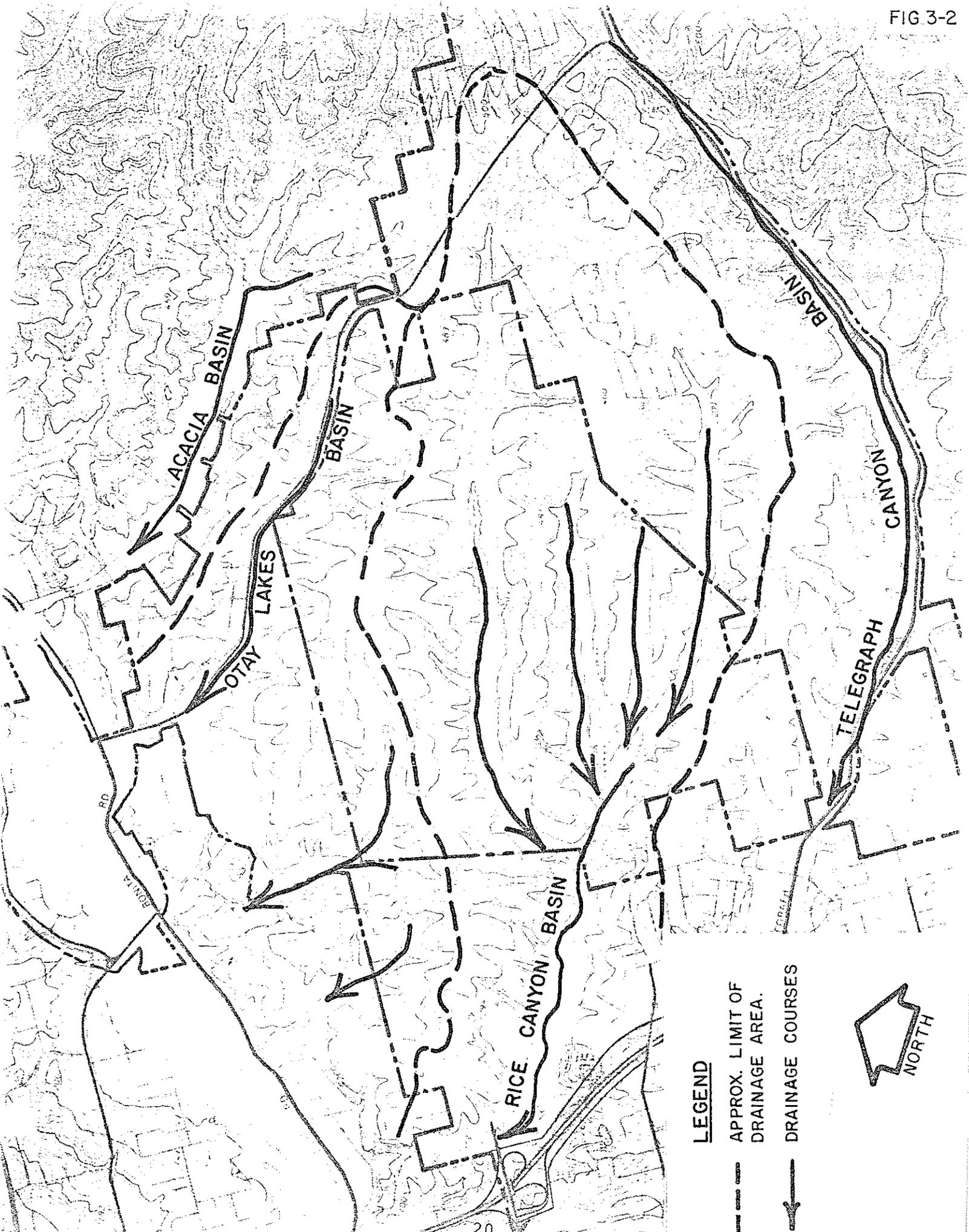
The project site is located in the Sweetwater Hydrologic Unit, one of 11 major drainage systems within the San Diego Basin as defined by the State Department of Water Resources (1967). The Sweetwater Hydrologic Unit is an elongate northeast-southwest trending area of about 230 square miles, extending from the crest of the Laguna Mountains to the southerly end of

the San Diego Bay. It is traversed along its length by the Sweetwater River, one of the major watercourses in San Diego County. The Lower Sweetwater Hydrologic Sub-Unit, that portion of the Sweetwater Hydro Unit below Sweetwater Dam, includes portions of the Cities of Chula Vista and National City and several unincorporated suburban communities.

The project site is drained primarily by intermittent tributary creeks within the Sweetwater Basin. The northerly half of the site drains largely through Rice Canyon. The southerly section drains via Telegraph Canyon Creek. Minor portions of the Northerly area drain to the Otay Lakes Rd. and Long Canyon Basins and other minor basins (see Fig. 3-2). Telegraph Canyon Creek trends in a west-southwesterly direction about 4.4 miles through the City of Chula Vista then empties into San Diego Bay. Rice Canyon Creek flows west then north approximately 1 mile to the point where it joins the Sweetwater River. Estimated 50 yr. discharges from the various major drainage basins are as follows:

Rice Canyon Basin	@ Bonita Rd.	1709 cfs
Telegraph Canyon Basin	@ Otay Lakes Rd.	1104 cfs
	@ I-805	1507 cfs
Otay Lakes Rd. Basin	@ Bonita Rd.	605 cfs

At present, the subject property is largely unimproved with regard to flood control facilities. Minor storm drain improvements have been constructed adjacent to portions of the site where peripheral development has occurred. Rice Canyon Creek is essentially in its natural state, while Telegraph Canyon Creek is largely a natural, open channel except where it passes through culverts beneath Telegraph Canyon Rd, or where fill for the road or other development has encroached into a portion of the channel.



**LEGEND**

- APPROX. LIMIT OF DRAINAGE AREA.
- DRAINAGE COURSES



### 3.4 Land Form

The property is situated on a highly dissected, mesa-like terrace lying north of the well-developed Otay Mesa. This mesa is a remnant of a gently westward-sloping marine wave-cut terrace that formed during the gradual emergence of the land surface that began some 3 to 40 million years ago. The site is drained by several intermittent streams. Stream flow has incised numerous steep-sided narrow canyons into the mesa surface, as indicated in Figure 3-2.

Elevations on the mesa surface range from approximately 520 feet above mean sea level (MSL) near Otay Lakes Rd. to about 100 feet MSL at the western extent of the site. Typical gradients on the mesa surface are on the order of 1 to 3%.

Canyon bottoms on the site are at elevations ranging from 420 feet MSL on the east to 100 feet MSL on the west. Typical stream gradients are approximately 2 to 4%. The canyon walls form the steepest slopes on the site becoming virtually vertical in localized areas. Typical canyon side slopes, however, are on the order of 20 to 30%.

### 3.5 Climate

Climatic conditions of the El Rancho del Rey area are generally comparable to that of the overall region. Due to the topographic variation within the project site, microclimatic variations, such as cold air drainage in the morning hours, are probable local occurrences.

The characteristic features of this semi arid climatic regime include long, dry summers and short, mild winters penetrated by intermittent precipitation. While the site's proximity to the ocean allows a tempering influence due to the prevailing westerly winds, somewhat greater temperature ranges could be expected in higher elevations within the project area. Freezing temperatures are rare, while temperatures above 90° occur far more frequently. Given the topographic irregularities of the subject property, it can be expected that canyon areas, deprived of full air circulation, would reach a wider extreme of temperature variation. In addition, a temperature inversion layer frequently persists in the air basin, further limiting air circulation.

Based on records of 1940 through 1970, average annual rainfall totals vary between 9.9 and 11.1 inches for stations in the vicinity of the project site. The highest monthly rainfall (7.86 inches) was measured at Lower Otay Reservoir; and highest annual rainfall has been recorded at slightly over 24 inches. In order to anticipate extreme conditions, the U.S. Weather Service has calculated that maximum rainfall for the coastal region (into which the project site falls) to be 4.5 inches in 24 hours.

The closest wind measurement location is Imperial Beach Naval Air Station, on the coast at Imperial Beach. Based upon their data, the estimated prevailing wind at the project site is westerly at 3-7 knots. However, it must be acknowledged

that while prevailing directions and speeds may be fairly constant in coastal areas, greater extremes may occur farther inland. An exception to the moderate, prevailing westerly winds is the easterly Santana winds, generally seen in late summer and early fall, bringing with them dry air, high temperatures, and concurrent fire hazards.

### 3.6 Air Quality

The climatic conditions have influenced the air quality of the projects region in that they result in a low mixing height from the ground to the inversion layer, low wind speed for horizontal mixing, little rain and a great deal of sun light. A study of these conditions by the Environmental Protection Agency showed that the atmospheric conditions which would most frequently contribute to adverse air quality occurred at San Diego and Santa Monica more commonly than throughout the remainder of the Continental United States.

The project site lies within the San Diego regional air basin and the San Diego County Air Pollution Control District (SDAPCD) which maintains ten monitoring stations throughout the basin. Data from the Chula Vista monitoring station on East J St. is felt to be most indicative of air quality conditions at the project site. This assumption is based upon the fact that the prevailing westerly to northwesterly wind pattern carries the air mass from Chula Vista in the general direction of the project prior to any significant opportunity for dispersion of pollutants or the crossing of topographic barriers which might accelerate mixing of air mass.

Table 3-4 presents pertinent data relating pollutant levels likely to exist at the project site. Table 3-3 delineates isopleths for the number of days the federal oxidant standard (8ppm) was exceeded in 1976.

Table 3-4

Existing Air Quality

<u>Pollutant (Standard)</u>	<u>Number of Days Federal Standards Exceeded</u>			
	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Oxidant (> .08 ppm, 1 hour average)	60	41	42	48
CO (> 9 ppm, 8 hour average)*	5	4	0	0
SO <sub>2</sub> (> .14 ppm, 24 hour average)*	0	0	0	0
Non-Methane HC (> .24 ppm, 3 hour average)	312	298	138	294
NO <sub>2</sub> (> .25 ppm, 1 hour average)**	0	1	0	0

\* Chula Vista data not available 1973-74, San Diego Downtown data was used.

\*\* State of California Standard, no Federal Standards available.



### 3.7 Noise

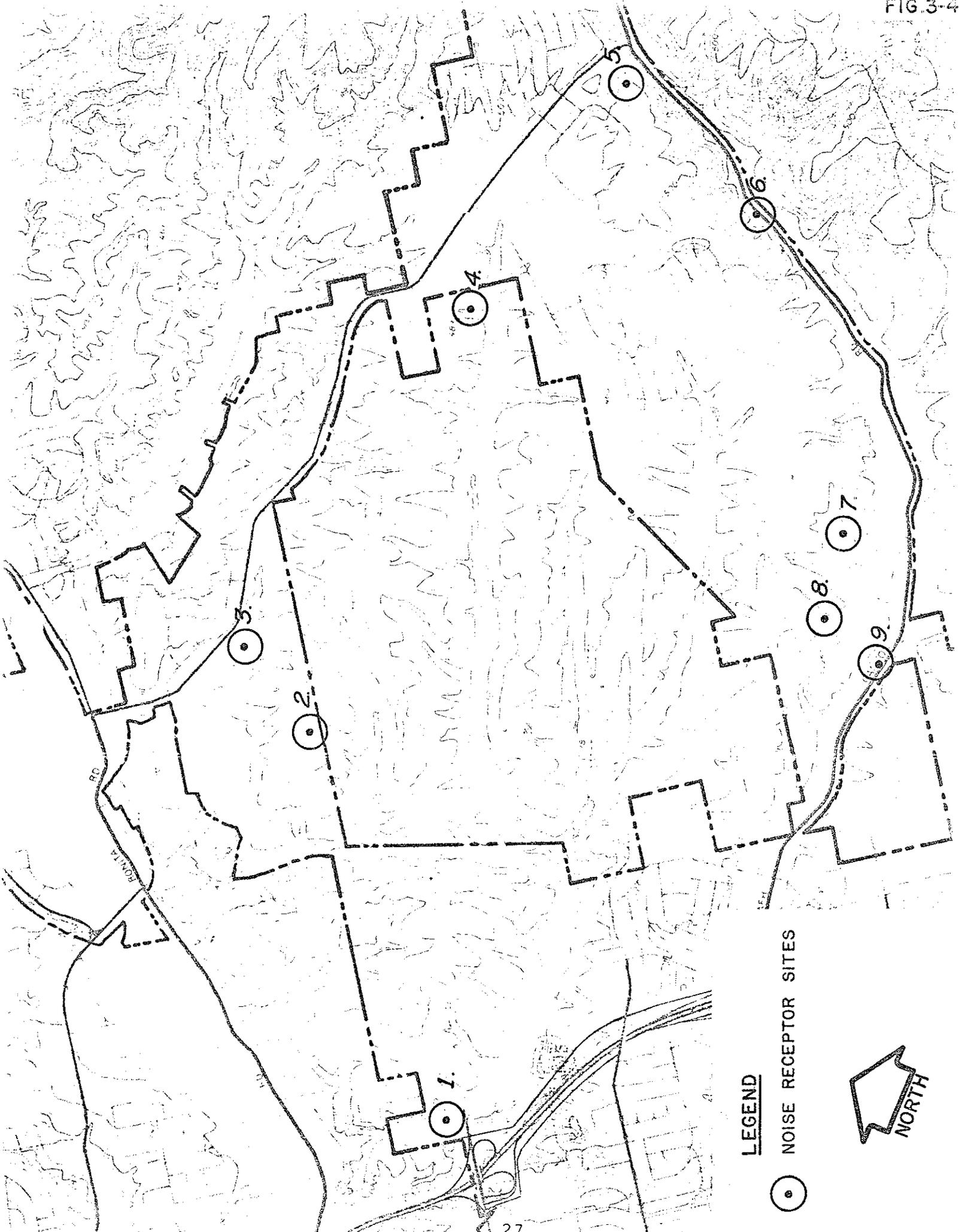
Throughout the past 1-2 years various noise level surveys were taken in the area of the project to obtain ambient noise levels. These surveys have been supplemented by more readings taken by City staff. The most prominent source of noise is traffic. Receptor sites were located primarily on the perimeter of the project. Those sites which were more inland showed lower readings. Figure 3-4 shows the location of the receptor sites. The numbers shown on that Figure correspond to the following Table, 3-5.

Table 3-5

#### Noise Survey Results

<u>Site</u>	<u>Average Range dB(A)</u>	<u>L<sub>10</sub> dB(A)<sup>1</sup></u>
1	54-59	58+1
2	46-52	51 <sup>+3</sup> <sub>-1</sub>
3	56-62	61 <sup>+1</sup> <sub>-0</sub>
4	52-69	67 <sup>+2</sup> <sub>-1</sub>
5	50-63	61 <sup>+2</sup> <sub>-1</sub>
6	68-73	71 <sup>+2</sup> <sub>-1</sub>
7	40-42	43 <sup>+1</sup> <sub>-1</sub>
8	48-52	55 <sup>+1</sup> <sub>-1</sub>
9	74-78	77 <sup>+1</sup> <sub>-2</sub>

1. L<sub>10</sub> is the value (noise level) which will be exceeded 10% of the time.



**LEGEND**  
● NOISE RECEPTOR SITES



### 3.8 Biology

The floral and faunal component of this property was tabulated during a field study conducted in 1972. Additional field work was more recently undertaken to assess any biological constraints and to delineate the areas of greatest biological sensitivity associated with the adoption of new development regulations for this property. The following discussion summarizes the existing floral and faunal elements, describes high interest species (rare and/or endangered, depleted, and declining), and identifies habitat space on-site in which representatives of the area's biological character can be retained as a viable body.

#### Flora

The project area is covered by a derivative of the Coastal Sage Scrub plant community. This floral community, often referred to as impoverished chaparral, is normally characterized by widely spaced half-shrubs although in some areas the growth is quite dense. Representative species of this community found on the property include California sagebrush, white sage, black sage, California buckwheat, lemonadeberry, common encelia, and hazardia (goldenbush). A typical assortment of annual grasses and forbs are scattered between the scrubs and an ashen carpet of clubmoss (Selaginella cinerascens\*) is present.

As noted in the earlier field studies, the arid climate of southwestern San Diego County has altered the Coastal Sage Scrub community from its normal aspect. The floral composition is augmented by a number of plant species of southern affinity.

\*Floral nomenclature follows that of Munz (1974)

These include goatnut (jojoba), snake cholla, coast barrel cactus, coastal fishhook cactus, bladderpod, Palmer sagebrush, Palmer goldenbush, velvet cactus, fragrant sage (Salvia clevelandii) and San Diego sunflower (Viguieria laciniata).

These species, because of their associations with a drier climatic areas, are with few exceptions, found on the more sun-exposed, south-facing slopes and to a lesser degree the barren ridge tops throughout the site.

With the exceptions of arboreal-type shrubs such as toyon and elderberry and some scattered willows along the main drainage-ways on-site (See Fig.3-2 ) no stands of trees exist on the property. Much of the eastern half of the property south of the proposed "H" St. extension was burned, judging the extent of floral recovery, approximately 5 years ago. Some isolated portions of the same area appear to have been burned more recently. A few specimens of an introduced species of acacia (Acacia armanta, kangaroo thorn), a thorny barrier shrub once forming a perimeter about a now ruined homesite, have established themselves on the property but do not appear to be spreading rapidly into adjacent natural areas. Aside from 1) the areas immediately adjacent to Telegraph Canyon Rd.; 2) areas used for agriculture in the past; 3) areas bordering existing residential development and 4) a number of utility roads throughout the property, the majority of the site remains in its natural state.

## Fauna

Previous field surveys of the property including a live trapping program revealed by direct or indirect evidence (tracks, scats, nests, borrows, or calls) the presence of at least 11 species of mammals. Hypothetical lists of fauna expected to inhabit the area based on range and habitat preference but not actually observed during any of the field surveys of the property account for an additional 9 species of reptiles and amphibians, 54 avifaunal species and 17 mammalian species. Hypothetical species include those which are not active above ground during the winter months (herptiles), migratory species expected to visit the site at some time during the year, (birds), and night-active and secretive species.

The abundance and diversity of the fauna of an area is closely tied to types of vegetative cover. The site provides adequate cover, water and foodstuffs to support a faunal population characteristic of Southern California coastal sage scrub habitat. This is evidenced in the previously discussed numbers of animal species actually observed and expected to utilize the area.

### High Interest Species

Floral and faunal species are considered to be of high interest if they are:

Rare or endangered.

Of depleted status (including Audubon Blue List species)

Endemic or of unusual or unique distribution.

### Rare or Endangered

Rare and endangered wildlife is protected by the Federal Rare and Endangered Species Act of 1973, the California

Environmental Quality Act and the California Subdivision Map Act.

Federal Endangered Species Act

The Federal Government requires that the local agency determine if a substantial impact on an endangered or threatened plant will be caused by implementation of a project. If federal participation or a federal permit is involved, the local agency is responsible for the initiation of a formal consultation with the U.S. Fish and Wildlife Service.

California Environmental Quality Act of 1970 (CEQA)

CEQA declares that "it is the policy of the state to: prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.

Ensure that the long term protection of the environment shall be the guiding criterion in public decisions.

Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.

Require governmental agencies at all levels to consider qualitative factors as well as economic factors and long term benefits and costs, in addition to short term benefits and costs and to consider alternatives to proposed actions affecting the environment."

CEQA states that "no public agency shall approve or carry out a project for which an environmental impact report has been completed identifying one or more significant effects thereof unless such public agency makes one or more specified findings regarding mitigation, consideration of alternatives of the feasibility of mitigation or alternatives.

Examples of significant effect include:

Substantially affecting a rare or endangered species of animal or plant or the habitat of the species.

Substantially diminishing habitat for fish, wildlife or plants.

California Subdivision Map Act (Chapter 4, article 1)

Paragraph (e) of Section 66474 is a general statement addressing the avoidable destruction of wildlife and its natural habitat and could be interpreted to include rare and/or endangered or significant vegetation and associated habitat.

"66474 A legislative body of a city or county shall deny approval of a final or tentative subdivision map if it makes the following findings:

That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat."

The California Native Plant Society (CNPS) has identified three floral species which exist on the property as rare and endangered plants. These three species are listed below along with a four-number code which establishes the status of the species as per the CNPS. Table 3-6 explains the coded notation, the values of which are based on the judgement of professional botanists and members of the CNPS in our area and throughout the State of California.

	Rarity	Endangerment	Vigor	Distribution
Ferocactus viridescens ( <u>Echinocactus viridescens</u> ) Coast Barrel Cactus, San Diego Barrel Cactus	1	3	2	1
Opuntia parryi var. serpentina ( <u>Opuntia serpentina</u> ) Snake Cholla, San Diego Cholla	1	3	2	2

These two species are found primarily on south-facing slopes. Particularly good stands are singled out and included in areas designated of high significance or sensitivity and located on Fig. 3-5. The distribution of both of these species extends into the northwestern coastal area of Baja California; they occur in the United States only in the coastal plain of San Diego County. Snake cholla, a small cholla of spreading or prostrate habit, is found in California only at Point Loma (Cabrillo National Monument), Chula Vista and San Ysidro. Both of these cacti are considered highly endangered in our area due to their coastal distribution and the subsequent pressure of urban development

Also noted as rare and endangered by the CNPS is the San Diego Ragweed (*Ambrosia pumila*) which is located in the floor of Rice Canyon near the western edge of the project site. This is a form of ragweed which does cause an allergic reaction in some people. No rare or endangered faunal species as determined by the California Department of Fish and Game were observed or are expected to exist on the property.

Table 3-6

Notation Code for Evaluating the  
Status of Plant Species in California

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.

Depleted Status

Three floral species considered by the CNPS to be "rare but not endangered" were found on the subject property. These species are listed below along with their status code as interpreted by Table 3-6.

<u>Artemisia palmeri</u> Palmer Sagebrush	1 - - -
<u>Bergerocactus emoryi</u> ( <u>Cereus emoryi</u> ) Velvet Cactus, Coast Button Cactus	1 - - -
<u>Selaginella cinerascens</u> Mesa Clubmoss	1 - - -
<u>Viguiera laciniata</u> Viguiera, San Diego Sunflower	1-1-1-1

Palmer sagebrush is found in California only at low elevations in southwest San Diego County. It is usually found in moist ravines and sandy drainage bottoms. Although relatively common along the coast in Baja California and on some of the offshore islands, velvet cactus has largely been exterminated by urban sprawl along the Southern California coast and only a few isolated patches remain about San Diego. This cactus is represented on-site by a lone clump, 8-10 feet in diameter. Mesa clubmoss and viguiera, by contrast, are relatively common on-site. They are considered rare by virtue of their appearance in California (and in the United States) only in the southwestern portion of San Diego County. Their range extends into northern California also.

## Fauna

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. The coast horned lizard (Phrynosoma coronatum), which was observed on the property, is considered depleted. Another observed faunal species is likely to be considered depleted in the near future due to heavy commercial exploitation and continuing destruction of its preferred habitat is the orange-throated whiptail lizard. These two species plus the common kingsnake, also observed on-site are all partially protected via possession or bag limit by the California Department of Fish and Game.

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. Species listed on the 1975 Blue List which were observed on-site include the American kestrel (sparrow hawk), loggerhead shrike, Cooper's hawk and Bewick's wren. Although none of these species is thought to be seriously declining in the region, their status should be closely watched. An additional four raptorial species which appear on the hypothetical list of birds for the area also appear on the Blue List. These species include the sharp-shinned hawk, red-shouldered hawk, Swainson's hawk and the barn owl.

### Endemic/Unique Distribution

With the exception of San Diego Ragweed, no floral or faunal species endemic to (found only within) San Diego County were observed on the site.

Three classes of floral endemics as being unique to the State of California include: relict species (dating from ancient flora), patroendemics, and apoendemics. The latter two classes are of interest due to the genetic mechanism(s) of their origin as species. The following endemic floral species were found on the subject area.

#### Relict Species/Paleoendemics

<u>Isomeris arborea</u>	Bladderpod
<u>Jepsonia parryi</u>	Mesa Saxifrage
<u>Simmondsia chinensis *</u>	Goatnut, Jojoba

#### Patroendemic Species

<u>Eriogonum fasciculatum</u>	California Buckwheat
-------------------------------	----------------------

None of these species are considered rare or endangered, or of depleted status.

A number of plant taxa reach their northern distributional limit in San Diego County. These species classified as "northern limitaries" include the following species which occur on the site.

<u>Artemisia palmeri</u>	Palmer Sagebrush
<u>Ferocactus viridescens</u>	Coast Barrel Cactus
<u>Haplopappus palmeri</u>	Palmer Goldenbush
<u>Mammillaria dioica</u>	Fishhook Cactus
<u>Opuntia parryi</u> var. <u>serpentina</u>	Snake Cholla
<u>Salvia clevelandii</u>	Fragrant Sage
<u>Selaginella cinerascens</u>	Mesa Clubmoss
<u>Viguiera laciniata</u>	San Diego Sunflower

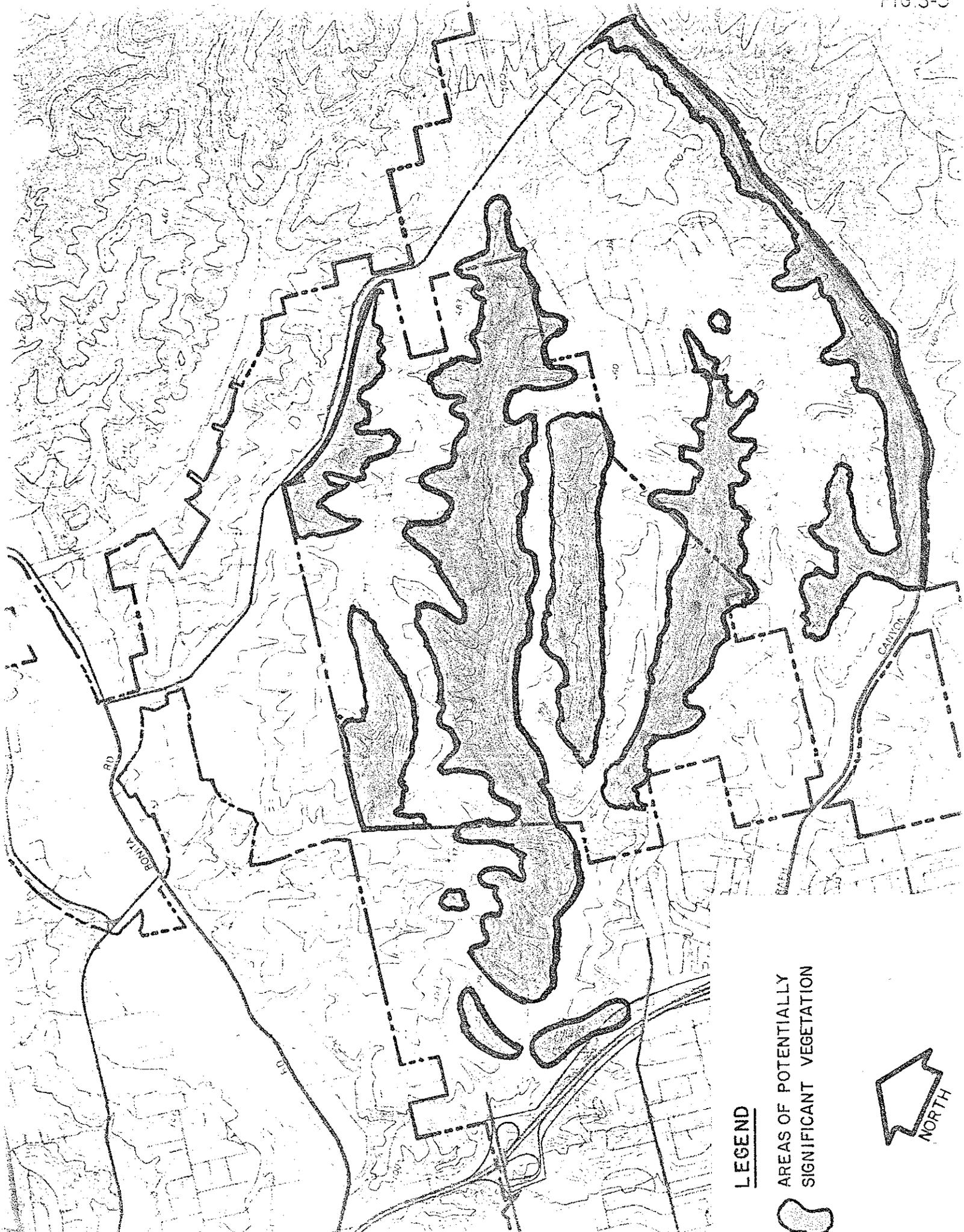
\*This species also has an economic importance in that it produces a lubricating oil. It could be a potential renewable resource to replace non-renewable resource sources. This population is more important in that it grows near the coast and may be genetically altered for growth near the coast. (See Sec. 13.2 Beauchamp)

The CNPS lists Salvia clevelandii as a species of "limited distribution". It is not considered rare and is found from the mountains of middle San Diego County westward, although nowhere is it a dominant species as other sages occasionally are. Two small stands of this species are present on the slope above Telegraph Canyon Rd. west of Otay Lakes Road. Five floral species of predominantly desert distribution are found on the property. These arid species, referred to as desert-coastal disjuncts due to their disjunctive distribution, include goatnut (jojoba), fishhook cactus, bladderpod, fourwing saltbush (Atriplex canescens) and desert mignonette (Oligomeris linifolia).

Of biological interest also is the presence of the cactus wren (Campylorhynchus br nneicapillum) on the property. While this species is fairly common in desert regions of San Diego County, it is considered rare on the coast by experts of local bird distribution. Although not locally abundant, this bird does nest on the property in dense stands of cactus (coast cholla, prickly pear). The cactus wren will be excluded from the area in the future if cactus thickets which are needed for nesting and foraging are removed.

#### Areas of Potential Biological Sensitivity

Areas of biological significance were established based on the criteria listed below and are delineated on Figure 3-5.



**LEGEND**

AREAS OF POTENTIALLY  
SIGNIFICANT VEGETATION



This figure is intended to be general in character. It does not delineate specific territory nor every individual stand or example of a species. There are rare and endangered species outside of these sensitive areas and there are some areas within these zones which do not contain rare or endangered species. The map is intended to delineate areas of potential sensitivity and uniqueness and to tie them together into a meaningful pattern and to retain a viable habitat for these species and the wildlife which inhabits them.

The criteria utilized in developing this figure are as follows:

- Areas which clearly show the integration of the plant species with a more northern affinity with the species of a more southerly affinity.

- Areas involving one or more rare and/or endangered species. Especially these areas that also include a third plant community such as the Riparian growth on the floor of the main leg of Rice Canyon.

- Areas necessary to link the above noted areas into a meaningful and viable form.

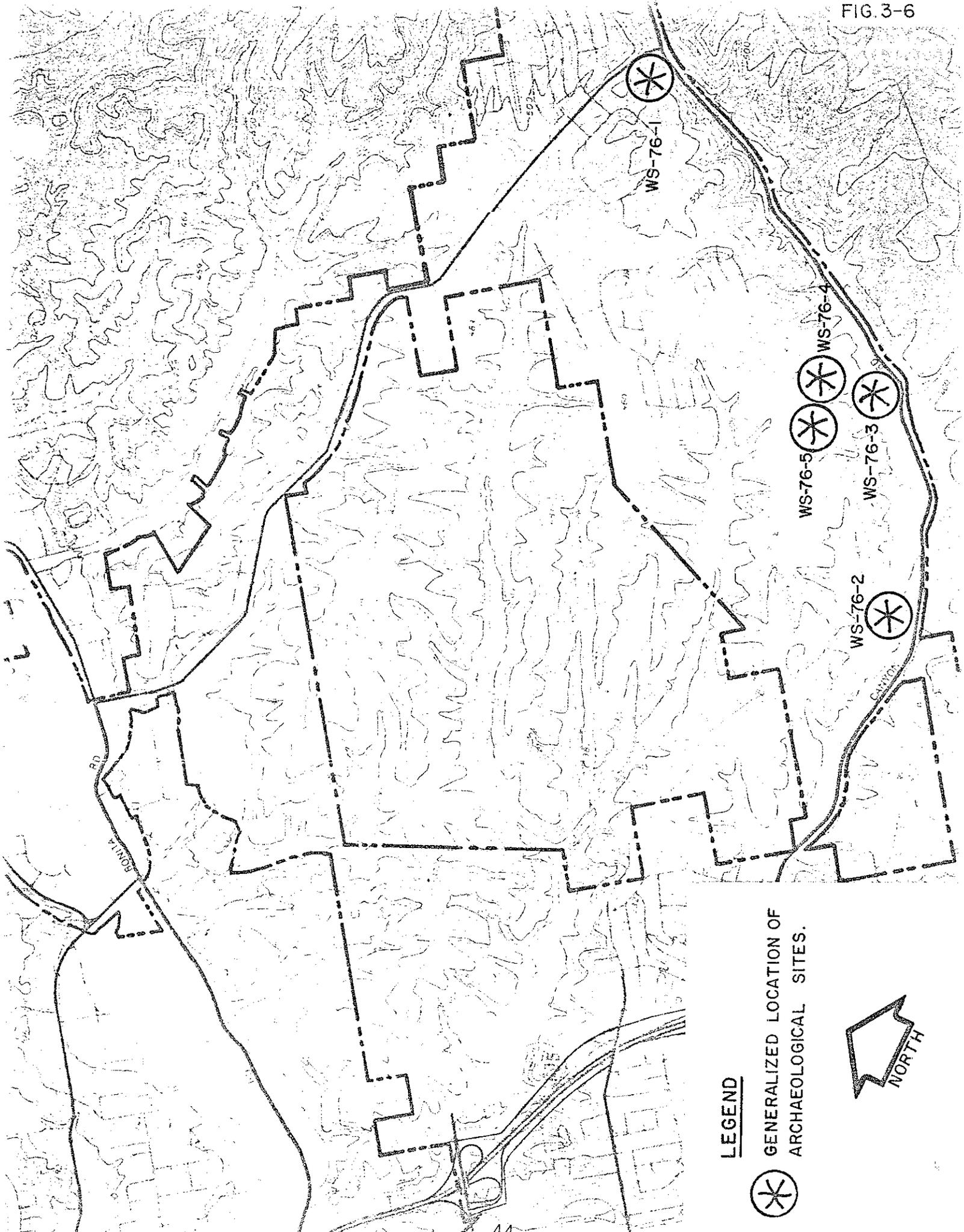
### 3.9 Archaeology

The entire undeveloped portion of this site has been surveyed to determine the presence of any archaeological sites. The northern portion of the property is void of any such features with only 4 artifacts being found on some 1400 acres. The southern portion, near Telegraph Canyon Rd., is of more interest however, an intensive field investigation of that area resulted in the discovery of five archaeological sites. The results of this investigation are included in their entirety as Appendix A . As noted on Table 3-7 and Figure 3-6 these sites vary in location, type and significance. None of the sites were indicative of intensive occupation or use, nor were the sites deemed to possess the research potential which would make them critical or major archaeological resources.

In general, the recorded sites were indicative of sites which were used by hunting and foraging peoples as a segment of their seasonal rounds. In broad terms, the area in and around the project site served as somewhat of a transition area for native peoples.

The carrying capacity of the area, if not the region, could not have supported a large nor permanent native population. Instead, sites within the area should be visualized as a series of resource outposts or resource manipulation zones which attracted small groups of native peoples for short periods of time and involved a limited range of activities. One would not expect to find indices of villages, permanent camps or intensive

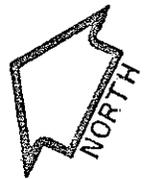
use in this area. The marks left by a largely nomadic group or band of foragers can be seen as being slight within the total spectrum of land use and alteration of natural resources.



LEGEND



GENERALIZED LOCATION OF  
ARCHAEOLOGICAL SITES.



NORTH

Table 3-7

Archaeological Site Comparisons

<u>Site</u>	<u>Site Type*</u>	<u>Elevation</u>	<u>Artifacts*</u>	<u>Vegetation**</u>	<u>Elevation Above Water</u>
WS-76-1	Food Processing (Kumeyaay?)	500'	Manos-Scrapers	Sage, Sumac	100'
WS-76-2	Food Processing (San Dieguito- Kumeyaay?)	400'	Scrapers-Flakes Shellfish	Opuntia, Cholla, Sumac, Sages	100'
WS-76-3	Food Processing (Inland La Jollan?)	350'	Manos-Scrapers Metates-Shell	Opuntia, Cholla, Sumac, Sages	50'
WS-76-4	Food Processing (Kumeyaay?)	420'	Scrapers-Core	Sumac, Yucca Sages	60'
WS-76-5	Flaking Station (Kumeyaay?)	480'	Flakes-Core	Sumac, Yucca Sages	120'
WV-1***	Tool Manufacturing (San Dieguito)	360'	Flakes-Scrapers	Yucca, Sage, Cholla, Opuntia	80'
CE-4****	Tool Manufacturing (San Dieguito)	450'	Flakes-Cores Tools	Cholla, Opuntia Grasses	250'
CE-5	Tool Manufacturing (San Dieguito)	400'	Flakes-Cores Tools	Cholla, Opuntia	200'

\* The reader is urged to refer to the Glossary provided in Appendix

\*\* The reader should refer to Appendix for an explanation of the native use of these various vegetative types.

\*\*\* WV-1 is a site recorded by WESTEC Services on the Windsor Views Project.

\*\*\*\* CE-4 and CE-5 are sites recorded by Gary Fink for the County Engineer Department.

In total, five archaeological sites were encountered on the project. Each site was located, analyzed and given a temporary site designation. For example, the first site was recorded as WS-76-1 denoting WESTEC Services, 1976, site 1. Permanent site numbers will be assigned by both San Diego State University and the San Diego Museum of Man.

WS-76-1 is located on a gradually sloping knoll due west of Otay Lakes Rd. and immediately south of Southwestern College near the northeastern boundary of the project. WS-76-1 is considered to be a trivial site. This site possesses relatively few artifacts, is situated in a badly disturbed area and probably represents a single-use activity area (most probably food-processing activities) for a single family or individual. The research potential of sites like this is negligible. The paucity of artifacts, lack of features and lack of other meaningful data does not allow for, nor dictate the necessity of intensive study or evaluation. As is the case with many food processing areas which lack artifacts and/or features, this site simply does not provide significant data.

WS-76-2 is located approximately 600 feet north of Telegraph Canyon Rd. on a narrow finger of land which extends from a ridge formation to the east and covers an area 125 meters by 10 meters although it may extend into the dense vegetation which surrounds much of the site.

WS-76-2 is considered to be a site of moderate importance. The presence of a wide variety of lithic types, shell fish and lithic tools indicates that this site may have been used

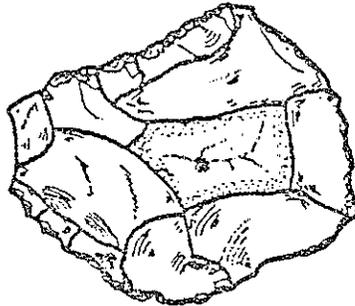
on a seasonal basis by a band of hunting and gathering peoples. Although this site was probably a temporary campsite, it affords the researcher an opportunity to investigate intra-site variance, cultural preferences for lithic and shell fish types, and to equate and analyze this site in a regional context.

Many of the artifacts and flakes noted for this site are similar to items noted along the knolls of Poggi Canyon and adjacent areas thus providing a chance for analyzing this site in a regional context. The presence of shell fish at WS-76-2 is also of some significance; inland sites which possess shell are relatively rare and generally warrant further study. A thorough study of this site in combination with others of the area could provide a great deal of information about the trans-human and settlement patterns of the native peoples of the area.

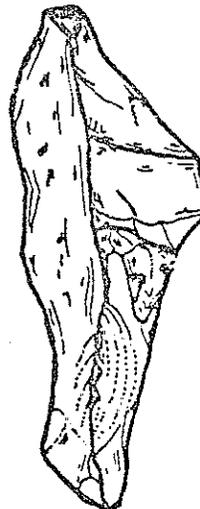
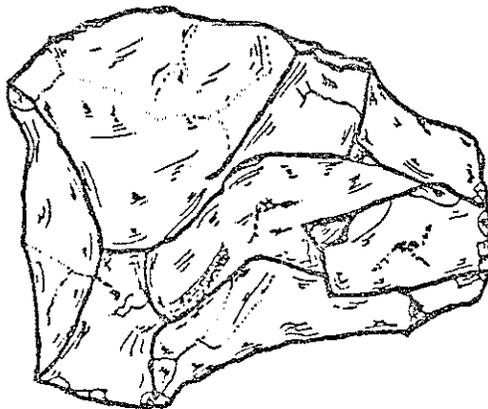
WS-76-3 is located approximately 250 feet north of Telegraph Canyon Rd. along the base of a gradually sloping alluvial deposit at the mouth of a relatively steep northward cutting canyon.

WS-76-3 is considered to be a minor/moderate site, in that it may possess more potential, is apparent on the surface thus the combined ranking of minor/moderate. This site contains a relatively high number of artifacts consisting mainly of food processing implements. (A small plano-convex scraper was removed from the site for further analysis, Figure 3-7 ) These implements appear to have been seriously

A. Plano-Convex Scraper (WS-76-3)



B. Irregular Flake Scraper (WS-76-4)



Note: All sketches are to scale.

Figure 3-7 Archaeological Artifacts

disturbed by land for alteration and other human activity. There exists the possibility that this site may possess some depth although no field tests were conducted to verify this. If the site does possess depth, the importance of the site would be increased. As a result of this disruption it is difficult to estimate the areal distribution of the site although a size of at least 15 meters by 10 meters would not be unreasonable. No depth was noted for this site although it is possible that any previous cultural build-up was removed by recent blading.

WS-76-4 is located approximately 500 feet north of Telegraph Canyon Rd. on a steeply sloping finger of land which extends southward from a high mesa top.

WS-76-4 is considered to be a trivial site. The relative paucity of artifacts and their placement on a sloping hillside may indicate that erosion and natural factors may have seriously impaired the areal context of the site.

It is suggested that this site represents a limited use area which was utilized as a food processing center. Activities which may have been carried out here would include seed removal, plant fiber stripping, bulb extraction and fruit collection. (An irregular flake scraper from this site is depicted in Figure 3-7). The nearby vegetation is of a type which would lend itself to seasonal foraging-collecting activities.

As is often the case with a site which may have seen temporary or limited use, this site possesses little intrinsic archaeological data or potential. The value of this site is that it represents a part of a larger sphere of exploitive influence and thus contributes a small amount of data about land use patterns of the prehistoric occupants of this area.

WS-76-5 is located to the northwest of WS-76-4 on a edge of a relatively flat mesa top.

WS-76-5 is considered to be a site of minor importance; it possesses only limited research potential both because of the relatively sparse number of artifacts and because of previous site disruption.

It is possible however, that this site is somehow correlated with WS-76-4, which is located nearby. Both sites appear to be temporary use areas which possess a rather limited number and type of tools. Although different lithic types were used at both sites, this may represent a temporary difference rather than a cultural variation.

The archaeological value of this site is that it may be associated with the other nearby sites and that it does possess a quantity of artifacts which may have been manufactured either on the site itself or nearby.

In addition to the sites defined above, scattered artifacts were recovered from isolated locales throughout the property. The lack of any continuity or concentration precluded the

noting of these areas as archaeological sites. The presence of isolated tools on ridge tops is a common element of a foraging peoples who made a given tool for a specific temporary function and then discarded it. For the most part these artifacts can be described as irregular flake scrapers and lithic debris (Figure 3-8 ). In general these artifacts exhibit little signs of wear and some carry relatively pronounced patination (wear caused by sun, wind, moisture, etc.). Specific cultural affinity and use is virtually impossible to report although most of these tools are associated with the preparation of plant foods and the gutting of small game.

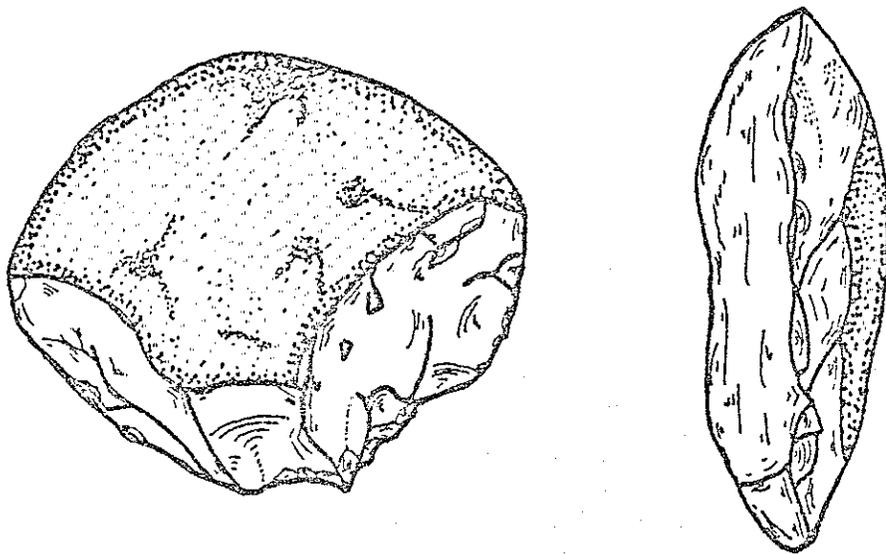
At least three of the sites, WS-76-2, WS-76-3 and WS-76-4 are similar to sites recorded in the Poggi Canyon region south of the project (indicated as sites CE-4 and CE-5 in Table 3-7 ). It is possible that additional field work in the Chula Vista region will document a predictable and understandable settlement or land use pattern for the prehistoric occupants of the area.

#### Paleontological Resources

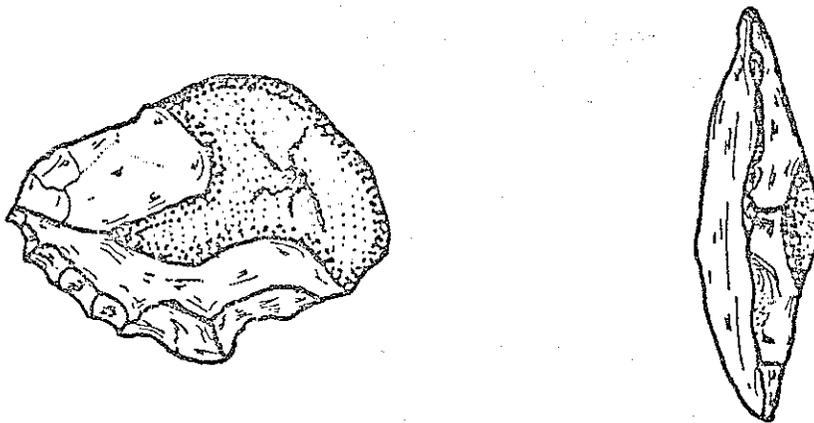
A horizon within the San Diego Formation west of the La Nacion fault zone, inclusive of the western quarter of the project site (see Figure 4-1) contains abundant fossil molluscs. They occur in a laterally persistent bed several feet thick at an elevation of approximately 310-320 feet.

Similar occurrences of Pliocene Molluscan fauna in the San Diego Formation are common and widespread throughout the region as evidenced by numerous fossil finds immediately southwest and northwest of the project site. Both megafossils and microfossils are fairly well known in the San Diego Formation and are not generally considered unique or unusual.

A. Irregular Flake Scraper (WS-76-0)



B. Irregular Flake Scraper (WS-76-0)



Note: All sketches are to scale.

Figure 3-8 Archaeological Artifacts

### 3.10 Historical Resources

The Natural Resource Inventory for the County of San Diego prepared by the Integrated Regional Environment (IREM) project of the County of San Diego Environmental Development Agency indicates no places of historical interest within the project site. This fact has been confirmed following on-site analysis.

Near the north central portion of the property at the crest of Hill No. 478 there are four features consisting of 10' x 10' excavations about 3 ft. deep. They have been subject to considerable erosion and in recent years as nearby populations have increased, the quality of these features has decreased substantially. Associated materials were very limited and consisted of broken adobe bricks, burned and unburned wood fragments and a broken pot-metal military vehicle handle.

Because of the size, shape, location and relative positioning, it is suggested that these features are the remains of a World War II era military or civil defense installation.

### 3.11 Schools

The El Rancho del Rey Community is served by two school districts, the Chula Vista City School District, which provides elementary education (kindergarten through sixth grades); and the Sweetwater Union High School District, which provides junior and senior high school education. The latest available enrollment total for the Chula Vista City School District is 9,049 for schools in the Chula Vista area, while that of the Sweetwater Union High School District is 11,919 for schools in the Chula Vista area.

Three elementary schools currently serve development within the subject property. They are Tiffany, Allen & Halecrest Elementary Schools. Bonita Vista Junior and Senior Highs serve most of the project area with Hilltop Senior and Junior High Schools serving the western limits of the project area. As is the case with many educational jurisdictions, these two districts are experiencing reduced levels of student enrollments in older sections of the City, while areas of realized or potential development contain facilities that are overcrowded. Tiffany, Allen & Halecrest Elementary are currently operating over capacity levels, while Bonita Vista Junior & Senior Highs have been extended beyond their design capacity.

The elementary school district currently has three undeveloped 10 acre school sites within or near the planning area and the secondary school district has a junior high school site to the south of Telegraph Canyon Rd. adjacent to Chula Vista Community Hospital.

### 3.12 Open Space/Parks

The project site currently provides a passive open space function. There are presently parks and organized recreational facilities located within the developed portions of the project site. There is also evidence of informal, unauthorized recreational uses taking place on-site; some of these activities include hiking, horseback riding, motorcycling and off-road vehicle use. Indirect evidence (expended cartridge cases) of either casual shooting or hunting activities have also been noted.

From a broader perspective, two major County regional parks are planned in proximity to the project site. The Sweetwater Regional Park, located on the north side of Chula Vista, is projected to contain 5,000 acres and provide a variety of general recreation, water recreation and cultural activities. The Otay Reservoir, located east of the project site is projected to include 4,900 acres and will provide facilities for general recreation, water sports and off-road activities. There are also beaches within reasonable driving distance of the project.

### 3.13 Police/Fire/Other Services

#### 3.13.1 Police

Police services for the area of the project which are within the City limits are provided by the Chula Vista Police Department. Service emanates from the main station at the Civic Center, approximately 4.4 miles from the project site. The City maintains an operating force of 92 Peace Officers and utilizes 40 vehicles for patrol and investigative purposes. Police service in the unincorporated territory is the responsibility of the San Diego County Sheriffs Department.

There are no special or unusual types of crime committed in the area of the proposed project; most law violations relate to its undeveloped, semi-isolated nature and consist mainly of juvenile delinquency and trespassing complaints. Patrol of the area is generally accomplished through the use of motor vehicles and off-road motorcycles.

#### 3.13.2 Fire

As in the case of police protection, more than one agency is responsible for fire protection. Protection for those portions of the project within corporate limits are available from the Chula Vista Fire Dept. while the unincorporated areas surrounded by City jurisdiction are not officially given fire protection from any agency at this time. As a practical matter, however, California Division of Forestry and/or the City of Chula Vista may be providing this safeguard in the public interest.

The response time to this site would be approximately 30 minutes and they have capabilities to fight structural fires.

The unincorporated areas north of the City limits are provided fire protection by the Bonita-Sunnyside Fire Protection District.

The closest Chula Vista facility to the project site is Fire Station #4, located less than one-half mile from the eastern project boundaries. The western project boundary is approximately 1.5 miles from Station #2 at 80 East J Street and 1.1 miles from Station #3 at 266 East Onida. These distances translate into a response time of from 3 to 4 minutes depending upon existing traffic conditions.

### 3.13.3 Other Service

Emergency ambulance services to the project area is provided by privately-franchised ambulance service. The closest hospital facility is the Chula Vista Community Hospital located at 751 Dora Lane. This 131 bed facility offers a full range of health care services including 24 hour emergency service.

Solid waste service to Chula Vista is provided by the Chula Vista Sanitary Service Company, the City's franchised contractor. This company provides service on a weekly basis for all residential and commercial areas through individual contract agreements.

Solid waste is ultimately transported to the sanitary landfill site operated by the County of San Diego on Otay Valley Rd., one mile east of its intersection with I-805. This site is located approximately 3.5 miles from the project site and has a projected lifespan of 9 to 12 years.

### 3.14 Utility Services

#### 3.14.1 Electricity

The project area is currently served by the San Diego Gas and Electric Company. Major distribution facilities include power lines along Telegraph Canyon and Otay Lakes Roads. Several of the currently developed out-parcels receive service from distribution facilities emanating from these lines. In addition, a 250 foot wide 138 KV San Diego Gas and Electric easement and towers traverse the project site in a northeast to southwest direction. In general, no structures can be built within the easement, however, roadway construction is normally allowed; the primary concern is maintenance of access. Expansion plans call for additional links within the easement, an extension of underground facilities on H Street west of Otay Lakes Rd., and construction of a Bonita Substation.

#### 3.14.2 Gas

Natural gas service to the project area is also provided by the San Diego Gas and Electric Company. While gas lines are laid within the project site, major distribution facilities include an 8 inch high pressure main in Telegraph Canyon Rd. and a 5 inch high pressure main in H St. extending west from the 8 inch main in Otay Lakes Rd.

### 3.14.3 Water

Approximately ninety-five percent of the water for most of San Diego County's residents is currently imported by the San Diego County Water Authority from the Colorado River through facilities of the Metropolitan Water District of Southern California. Over the next several years half of the water from the Colorado River will be diverted to Arizona. Before the advent of the 1975-1977 drought, the Water Authority had been scheduled to receive northern California water through the State Water Project beginning in about 1977. State Project water, at this time is not being supplied to Southern California due to the drought. Long-term contracts for imported water, for the San Diego County Water Authority would provide 597,997 acre-feet of annual supply. This is enough to fill the needs of 2.3 million people at 1972 use rates of 0.26 acre-foot per year per person (San Diego County Water Authority, 1972). Assuming per capita use rates remain at the 0.26 acre-foot/year/person, the 597,997 acre-feet would assure sufficient water for the Water Authority service area (most of the population of San Diego County) until approximately 1992 or 1993 using San Diego Comprehensive Planning organization Series IV population projections. According to the Comprehensive Plan for the San Diego Region, Water Resources (Comprehensive Planning Organization of the San Diego Region, 1975), the water requirements and sources of supply are adequate in general to meet present and future needs (1995).

There is a need to provide treatment capacity for State Project water and to provide additional storage. In general, transmission capacity is adequate for long-range needs, if increased capacity is added in a few jurisdictions. Costs of delivered water will increase due to the increased energy costs of pumping.

A recent publication, "Water in the San Diego Region 1977", contains information that indicates that the Municipal Water District of Southern California (MWD) may not be able to supply all the water anticipated by its member agencies, one of which is the San Diego Water Authority.

Two recent events have decreased this water availability to the region served by MWD and thus to the San Diego area: 1) an injunction on Los Angeles limits the amount of water available to it from Owens Valley, and 2) because of low rainfall in northern California, State Project Water was not available since March 1, 1977. Both of these conditions indicate that there is not a guaranteed amount of imported water available to the San Diego area in the short or long term future. CPO draws the conclusion in the report that there are two highly variable factors affecting water availability in San Diego - the volume of water supply available to MWD and the willingness of residents to finance local distribution systems. Water service to the specific project area is provided by the Otay Municipal Water District, which receives water from

the Second San Diego Aqueduct near Otay Lakes Rd. and Telegraph Canyon Rd. At that location, a pump station, chlorination station, reservoir and storage tank areas exist. However, the Otay Municipal Water District anticipates that assuming availability of water from the Metropolitan Water District transmission facilities can be provided to serve future domestic needs in the Chula Vista area.

Southwestern College and surrounding residential developments are currently served by a 12 inch main in Otay Lakes Rd. and East H St. Existing facilities also include a 20 inch main running along Telegraph Canyon Rd. which provides water to residential areas southeast of the project site. The Otay Municipal Water District maintains an emergency connection to the 40 inch City of San Diego steel pipeline which transverses the project site in a generally north to south direction.

#### 3.14.4 Sewers

The project will be served by sewer lines operated by the City of Chula Vista. The sewers within the Telegraph Canyon Basin will be connected to an existing 8 inch line in Otay Lakes Road and the 15 inch trunk line in Telegraph Canyon Rd. which links to the Metro facility via existing city lines. Those future lines within the Rice Canyon Basin will be connected to the Spring Valley Outfall sewer which belongs to the Spring Valley Sanitation District. The Outfall sewer is located about 1.7 miles downstream from the northwesterly

boundary of the project.

Sewage from the project will be conveyed through the regional sewer system to the San Diego Metropolitan Treatment Plant where it will be treated and discharged into the Pacific Ocean. Approximately 120 million gallons of sewage are treated daily at this plant.

#### 3.14.5 Telephone

The planning and provision of telephone service to the project area is the responsibility of the Pacific Telephone & Telegraph Co. While telephone facilities currently exist within developed portions of the project site, 400-pair feeder lines in Telegraph Canyon Rd. and Otay Lakes Rd. provide service to currently developed out-parcels. Pacific Telephone also has constructed a two acre service facility north of Telegraph Canyon Rd. to the west of Apache Dr.

#### 3.15 Transportation/Access

Major access to the project site is provided by I-805. East-West collectors include Bonita Rd., East H Street, Telegraph Canyon Rd. and to a lesser extent East J Street. North-West circulation is currently provided by Otay Lakes Rd. and Buena Vista Way. There are small portions of other north-south collectors which will likely be extended in the future; these are Paseo del Rey, Paseo Ladera and Paseo Ranchero.

The latest traffic volumes on these roads which currently carry traffic are presented in Table 3-8.

Table 3-8

Current Traffic Counts

<u>Roadway</u>	<u>Location</u>	<u>Current ADT</u>	<u>Date</u>
Telegraph Canyon Rd.	I-805 w/o Oleander & Crest	17,450	4-77
	e/o Oleander/Crest	15,296	4-77
	w/o Brandywine Ave.	16,295	8-77
	e/o Brandywine Ave.	16,426	8-77
	w/o Buena Vista Way	17,964	9-77
	w/o Otay Lakes Rd.	17,226	4-77
Otay Lakes Rd.	s/o East "H" St.	10,862	5-77
	s/o Camino del Cerro Grande	19,490	5-77
East "H" St.	@ I-805	16,726	2-77
	w/o Otay Lakes Rd.	4,444	8-77
Bonita Road	w/o I-805	22,390	8-77
	w/o Willow	17,837	4-77
	e/o Willow	19,953	5-77
	w/o Otay Lakes Rd.	20,282	8-77
I-805	Bonita-Telegraph Canyon Rd.	44,000	1977
Buena Vista Way	n/o Telegraph Canyon Road	1,925	5-77
East "J" St.	e/o I-805	2,938	5-77

Key: n/o - North of  
s/o - South of  
e/o - East of  
w/o - West of

East of Paseo Del Rey Telegraph Canyon Rd. is a two lane road with some left turn lanes provided. The most congested section of this road is just to the east of the I-805 interchange. The City of Chula Vista has recently widened Telegraph Canyon Rd. between I-805 and Paseo Del Rey to provide a striped median and two travel lanes in each direction. The congestion previously experienced on Telegraph Canyon Rd. in this area has been alleviated and shifted easterly near the point of transition from 4 to 2 lanes. With the development of adjacent properties in this area, a third travel lane in each direction will be installed as will a raised median.

Signals at the intersection with Crest Dr./Oleander Ave. have been installed by the City of Chula Vista. The California Dept. of Transportation will be signalizing the off-ramps and Halecrest Dr. in 1978.

Otay Lakes Rd. and a portion of East H St., west of Otay Lakes Rd. are both constructed with considerable rights-of-way, however most of Otay Lakes Rd. to the north is striped for two lanes. Most of Otay Lakes Rd. south of East H St. contains four lanes while H St. is wide enough for 4 lanes and parking. Buena Vista Way, the residential collector serving currently developed out-parcels, contains two lanes.

Intra-state and north-south travel in the region is served by I-5 and I-805 which traverse the Chula Vista area without signal interruption, facilitating through traffic and allowing segregation of the local circulation network.

Local public transportation in the City is provided by Chula Vista Transit which has 3 routes adjacent to the site.

### 3.16 Socio-Economic Factors

The property lies within Census Tract 29 including lands within the City of Chula Vista and the County. The following table presents pertinent demographic data regarding Census Tract 29, the City of Chula Vista and the County of San Diego.

Table 3-9

#### Demographic Data

	<u>1970</u> <u>Population</u>	<u>1975</u> <u>Population</u>	<u>Percent Increase</u>
Census Tract 29*	3,358	6,258**	86.4
City of Chula Vista	67,901	75,137	10.7
County of San Diego	1,357,854	1,559,505	14.9

\* A portion of Census Tract 29 containing the subject property is currently vacant, hence contributing little to 1970 and 1975 population totals.

\*\* This total for purposes of comparison, includes Census Tract 30, formed out of Census Tract 29 subsequent to the 1970 Census.

These figures are indicative of the trend of urban expansion currently underway in the eastern Chula Vista area. As indicated above, these Census Tracts possess growth rates exceeding those of both the City of Chula Vista and County of San Diego.

A similar conclusion can be drawn when viewing housing data for these same areas presented in Table 3-10.

Table 3-10

Housing Data			
	<u>1970 Housing</u>	<u>1975 Housing</u>	<u>Percent Increase</u>
	<u>Total</u>	<u>Total</u>	
Census Tract 29	911	1,896**	108.1
City of Chula Vista	22,951	27,320	19.0
County of San Diego	447,739	578,899	29.3

\*The portion of Census Tract 29 containing the subject property is currently vacant, hence contributing little to 1970 and 1975 population totals.

\*\*This total for purposes of comparison, includes Census Tract 30, formed out of Census Tract 29 subsequent to the 1970 Census.

As of 1970, Census Tract 29 (including the area formed into Census Tract 30) contained 4.9% of the City's population total and 4% of its housing inventory. By 1975, these proportions rose to 8.3% and 7% respectively.

The Comprehensive Planning Organization "Series 4" forecast of the 1995 Chula Vista population (as adopted by the City Council) is estimated to be 131,000.

The Chula Vista General Plan states that:

The rate of Chula Vista's growth will depend on such factors as rate and quality of land development, quality of civic development, and relative convenience to both shopping and work centers. Chula Vista will continue to be tributary to San Diego but will depend increasingly, for its employment, on its own industries and commercial activities.

As of 1975, Chula Vista still relies quite heavily upon the metropolitan San Diego area as an employment generator. Only 19.5% of Chula Vista "heads of household" work in the Chula Vista-Sweetwater geographic area. A large proportion of those remaining are employed in the metropolitan San Diego region.

Other pertinent data describing Chula Vista's social environment is include in the following table: 3-11:

Table 3-11

Dwelling Unit Composition

<u>Dwelling Type</u>	<u>1970 Total (% Composition)</u>	<u>1975 Total (% Composition)</u>	<u>Percent Change</u>	<u>Percent Vacant</u>	<u>Persons/ Household</u>
Single-Family	13,965 (61%)	15,286 (56%)	+ 9.5	3.24	3.38
2 - 4*	1,612 (7%)	3,733 (14%)	+131.6	3.91	2.66
5+	4,323 (19%)	6,160 (23%)	+ 42.5	5.21	1.94
Mobile Home	2,120 (9%)	2,115 (8%)	- .2	0	1.72
Miscellaneous**	--	26 (.1%)	--	--	--
Totals	22,951 (100%)	27,320 (100%)***		3.52	2.83

\* Includes attached single-family dwellings (758 attached single-family dwellings were constructed between 1970 and 1975).

\*\* Includes motels and hotels.

\*\*\* Deviation in totals due to rounding.

#### 4.0 Project Description

##### 4.1 Text of the Land Use Plan

### Proposed Amendments to the General Development Plan and Schedule of the El Rancho del Rey Planned Community Zone established in 1970

#### I. INTRODUCTION

Pursuant to City Council request, the Planning Department, in conjunction with other municipal line departments, and the local school districts and public utility companies and services, has prepared comprehensive amendments to the El Rancho del Rey General Development Plan and Schedule of 1970. These amendments constitute the substance of the plan diagram and text of this report.

The proposed amendments to the El Rancho del Rey plan are predicated upon the goals, general objectives, statements of policy, standards, and principles of the Chula Vista General Plan and its several elements, and are substantially consistent therewith. However, while these amendments are consonant with the spirit and purpose of the basic provisions of the P-C--Planned Community Zone, Chapter 19.48 of the Chula Vista Municipal Code, they do not meet all of the detailed requirements thereof. For example, the proposed amendments do not contain a regrading plan or provisions for erosion control.

Furthermore, the amendments do not address anticipated employment in the proposed commercial precinct, or methods of limiting the noise, odor or dust generated in connection therewith. These detailed requirements, as important as they are, should be met at the project planning stage of development, and are beyond the scope of "long-range, comprehensive planning" in general, and the general development plan of a large planned community zone in particular. It is therefore the intent of the city administration to propose legislation which would delete the subject detailed requirements from the P-C zonal regulations.

The proposed amendments are designed to promote the orderly growth, development, and conservation of the several thousand acres in question. They are also intended to provide the developers of the El Rancho del Rey area with sufficient economic incentive to build the residential areas, commercial precinct, roads, and infrastructure recommended in the following text and the accompanying plan diagram. Without economic incentive, neither the effective development nor the planned conservation of El Rancho del Rey can reach fruition.

#### II. GOAL AND GENERAL OBJECTIVES

##### A. Goal

The promotion of the orderly and economic growth, development, and conservation of the El Rancho del Rey territory, through comprehensive city planning, is the goal of the El Rancho del Rey General Development Plan and Schedule.

##### B. General Objectives

1. The improvement of the existing and projected patterns of land use in El Rancho del Rey.

2. The protection of the natural land forms and ecosystem of El Rancho del Rey and adjacent areas.
3. The establishment of an effective pattern of circulation within El Rancho del Rey, and an economic, useful, and convenient network of transportation linkages between the subject community and other parts of the Chula Vista Planning Area.
4. The provision of adequate storm and sanitary sewers.
5. The conservation of water, fossil fuels, and natural vegetation.
6. The provision of affordable housing, where such is practicable.
7. The provision of adequate police, fire, park, recreation, and other municipal services.
8. The promotion of well ordered and aesthetic spatial relationships, and the establishment of a qualitative townscape for the natural and manmade environments of the subject area and adjacent territories.
9. The provision of guidance for the preparation of precise development plans for the various portions of the overall General Development Plan.
10. The provision of additional housing for the increasing population of the San Diego region.

### III. STATEMENTS OF POLICY; PRINCIPLES AND STANDARDS; FEATURES AND PROPOSALS

#### A. General

1. The El Rancho del Rey General Development Plan shall be regarded as the official Land Use Policy of the city, and its text, graphics, and elements shall be regarded as the comprehensive plan for the development and conservation of El Rancho del Rey.
2. The El Rancho del Rey General Development Plan shall be the principal specific and local district plan of El Rancho del Rey, and all zoning plans, public works plans, subdivision plans, transportation plans, development proposals, and capital improvement programs affecting El Rancho del Rey shall be governed by the said plan's provisions.
3. The land use pattern, circulatory system, and spatial relationships of El Rancho del Rey should be consistent with the suburban order of the Telegraph Canyon and Bonita-Sunnyside communities.
4. It shall be the policy of the City of Chula Vista to require development in the El Rancho del Rey P-C zone to proceed in a manner which protects the topographic character of the area. Therefore, the predominant ridges and canyons shall be determining factors in determining the form and character of development.

5. The development of El Rancho del Rey should be consistent with public safety, including seismic safety. Therefore, the traces of the La Nacion Fault and its splinter faults shall also determine the pattern of development within the subject territory.

6. The City of Chula Vista's adoption of overall plans for the provision of water and sewer service to El Rancho del Rey by drainage basin shall be prerequisite to the further substantial growth and development of the subject community. This plan shall be prepared by developers with the cooperation of the City.

7. The Chula Vista City Planning Commission shall submit annual reports to the City Council on the status of the El Rancho del Rey General Development Plan and the progress of its execution.

8. The City shall prepare a reimbursement plan or plans to equitably distribute the costs of improving East "H" Street and other street segments and public facilities essential to the El Rancho del Rey area. All developments in the area shall be subject to the fees and conditions as established by the City Council through adoption of such plan or plans.

B. Design and Townscape Planning

1. The text and plan diagram of the El Rancho del Rey General Development Plan propose the development of a well balanced district which would be characterized by a diversity in land use and a strong emphasis upon natural and man arranged open space. The General Development Plan prescribes a suburban character for El Rancho del Rey and allocates large tracts of land to "estate" and low and medium density residential developments. The plan recognizes that the single family dwelling will be the dominant land use of the subject area, but permits and encourages cluster, patio-home, and townhouse developments; garden apartment projects; and other "new concept" residential developments which could provide interesting land use patterns and spatial relationships and thwart suburban boredom. This boredom, which is too prevalent in California, is usually attributable to a lack of variety in land use and a lack of verve and luster in urban design.

2. In general, the bulk, height, parking, open space and other pre-announced standards of the City of Chula Vista's zoning regulations shall govern, where appropriate from a land use standpoint, developments within El Rancho del Rey. However, these preannounced standards should be regarded as minimum requirements, and the Planning Commission or the City Council may require higher standards during the course of either's review and consideration of specific developmental proposals.

3. Deep greenbelts shall be established and maintained along Telegraph Canyon and Otay Lakes Roads, and the north leg of Rice Canyon in accordance with the Open Space General Plan Element. (See the accompanying plan diagram.)

4. Signs shall not be permitted within the El Rancho del Rey Planned Community unless they conform to a comprehensive sign plan which has been previously reviewed by the Planning Commission and adopted by the City Council.

5. At least two sites which provide panoramic or interesting directional vistas should be available as public viewpoints, and pedestrian and/or vehicular access should be provided thereto. At least one such site should be considered for acquisition by the City.

6. The General Development Plan calls for the subdivision of El Rancho del Rey's 2,350 acres into a number of structural planning units referred to in the Sedway/Cooke report as micro-neighborhoods. Preservation of the dominant east-west canyons will preclude use of the traditional neighborhood planning unit and will require instead the development of linear subcommunities which will be defined by the canyon areas. Each subcommunity will be composed of a number of micro-neighborhoods, which in turn will be defined primarily by similarity of housing type. Each micro-neighborhood should have a small common recreational area, a common access road, and common landscape theme. The recreational area could consist of a relatively small space for ball and frisbee throwing, and perhaps a hard court for basketball practice or other informal game playing. This small recreational area should be owned and maintained by a homeowner's association made up of the membership of the micro-neighborhood to provide some permanent social structure for the group. Groups of micro-neighborhoods will then comprise a subcommunity which will be similar to a neighborhood but more linear in form. Residents of the same subcommunity probably will attend the same elementary school and utilize the recreational facilities of the school and adjacent park in common.

### C. Conservation

1. The El Rancho del Rey General Development Plan places a strong emphasis upon conservation. It advocates the preservation or scientific relocation of rare and endangered biological colonies, and their protection from the destructive activities associated with human settlements, where such is feasible. In short, the plan proposes a balance between the natural and manmade environments.

2. The natural open space and land forms of El Rancho del Rey should determine the subject territory's structure and basic design. Although the north leg of Rice Canyon should be preserved almost in its entirety\* the preservation of the middle and south leg could be confined to their natural floors. As land is subdivided, however, the preserved floors of the middle and south legs of Rice Canyon should be complemented by adjacent common greens, parkways, or other usable open space.

3. The City of Chula Vista regards the north leg of Rice Canyon as vital public open space, and recognizes the need for public participation in the maintenance, development, and conservation of the subject territory. The city does not regard the maintenance, development, or conservation of other open space within El Rancho del Rey as being, at the present time, within the public charge. The latter should take the form of private open space reserves, common greens, open space easements, or open space maintenance districts.

4. While the grading of territory within El Rancho del Rey should be carefully controlled, and should be sensitive to the natural environment of the community in question, it must be recognized that the rugged terrain confronting developers cannot accommodate urbanization on an economic basis in the absence of considerable grading.\*\* Such grading shall be contoured at the edges of

\* The specific action policy of Goal No. 5 d of the text of the Chula Vista General Plan reads: "Identify and preserve strategic areas, such as lookout areas, lake shores, deep and interesting canyons."

\*\* The specific action policy of Goal No. 5 b, at page 22 of the Chula Vista General Plan, calls for the establishment of "controls to prevent ugly scarring and grading in development of eastern lands."

a project so as to maintain a natural appearance even though substantial earth-work is performed. Within a project, grading shall not be solely designed to alter the topography to fit predetermined lot sizes and floor plans, but shall contemplate use of some dwelling types which can be better fitted to the land and pad types which minimize exposure of manmade slopes. While it is not the intent of the City of Chula Vista to literally apply the provisions of the Hillside Modifying District to El Rancho del Rey, the purpose and objectives of that regulation do apply and the staff report on each development in El Rancho del Rey shall contain a statement as to the extent of compliance or noncompliance with the provisions of the Hillside Modifying District. The City's hillside development policy as contained in the "Design Criteria for Hillside Development," adopted by the City Council on February 11, 1975, shall apply in the El Rancho del Rey area.

#### D. Circulation and Public Facilities

1. The street system of El Rancho del Rey shall meet the traffic and land service needs generated by the development of the area's several thousand acres and shall by design promote conservation of natural open space, the establishment of a suburban order, the reduction of the need for grading, and the encouragement of economy in land development.

2. The plan depicts an arterial and collector street network which is designed to preserve the open space of Rice Canyon and the area north of Ridgeback Road to the maximum extent. If traffic congestion increases to undesirable levels - or if it is determined that the needs for emergency service cannot be met by the proposed circulation plan, then a north-south road linking East "H" Street to Ridgeback Road, and crossing the north leg of Rice Canyon may be required.

3. The construction of the East H Street artery to the requirements of the City, and the development of major, requisite public facilities, or the City's adoption of a developer-initiated program therefor, shall be prerequisite to further substantial growth and development in the northerly portions of El Rancho del Rey, and it shall be the City's policy that development which is tributary to H Street shall progress from west to east.

4. East-west equestrian and hiking trails within the three legs of Rice Canyon already exist and some will be preserved as development of adjacent lands occurs. It is the policy of the City to also make provision for at least one north-south trail which shall utilize such existing rights of way as the San Diego Otay Water line and the SDG&E easement. Additional north-south routes or variations and adaptations of the basic north-south route may become apparent at such time as development proposals are made and grading plans are developed.

5. Bicycle routes and facilities should also be established within the principal canyons of the district, as well as along the main streets of El Rancho del Rey in accordance with the Bike Routes General Plan Element, and adopted implementing plans.

6. The El Rancho del Rey District should be served by the City of Chula Vista's mass transit system. This service should be planned and implemented by the Director of Public Works and the Transit Coordinator.

#### E. Public Facilities Planning

The General Development Plan, with the exception of a conceptual network of arterial and collector streets, does not depict the various public facilities required to serve and support the El Rancho del Rey area. It will be necessary that comprehensive plans for the various facilities be developed prior to substantial growth and development of the subject community.

In general, public facilities shall be designed to accommodate the ultimate loads projected to be encountered by the subject facility. Public facility designs shall promote conservation of natural open space, promote conservation of energy, minimize grading through open space, and foster creation (where necessary) of slopes of the area.

The upper limits of density ranges approved for development of El Rancho del Rey shall be used in design of public facilities to serve the area. Where specific sub-areas have been developed (or assured) having densities other than such upper limits, the actual density may be used.

Churches, private clubs, and similar public and quasi-public uses may be permitted by the Planning Commission through the conditional use permit process embodied in the zoning regulations of the Chula Vista Municipal Code.

#### F. Residential Planning

1. The residential density of El Rancho del Rey should be limited by the topography and natural constraints of the subject territory, as well as the general plan parameters of the Telegraph Canyon Community, and those adopted for adjacent territories. Notwithstanding these factors, the unit yield and densification of El Rancho del Rey must be sufficiently high to economically justify the development of the required streets, the construction of the requisite water and sewer lines, the preparation of the land for development, and the investment of development capital by the free market.

2. The gross residential densities indicated on the plan diagram of the General Development Plan are partially designed to provide property owners and developers a reasonable return on their investments even though portions of their lands are devoted to open space. Developers should regard the top of each density range indicated on the plan diagram as the maximum overall density to be allowed within a given area. The Planning Commission and City Council are under no obligation to approve plans at the top step of any density range, but rather shall consider the following factors in arriving at an appropriate density for a particular project:

- a. The location of the property with regard to existing or prospective developments.
- b. The impact of the project on traffic circulation and schools.
- c. The topographic character of the property and other development constraints, including earthquake faults and the presence of endangered species.
- d. The degree to which amenities and unique features are incorporated into the project.

3. Within a given area, the Planning Commission and City Council may authorize development of a project at a density higher than the maximum overall density. Prior to such authorization, however, the applicant shall demonstrate by the preparation of preliminary plans for subsequent phases that the overall maximum density will not be exceeded. At the time of approval of a higher density project, the preliminary plan shall be adopted as a refinement of the El Rancho del Rey General Development Plan. (See also the discussion of Sectional Planning Areas on page 9).

4. In order to prevent the excessive restructuring of land, especially on the periphery of canyons and along steep streets, unconventional housing types, such as split-pad and pole houses, should be encouraged.

5. Medium high density residential development within El Rancho del Rey should be based upon the "garden apartment" concept, and should be characterized by extensive internal and peripheral open space.

6. The land use plan of El Rancho del Rey should, where feasible, utilize the cluster, townhouse, patio home and zero lot line concepts in an effort to provide usable open space. These concepts, if adroitly planned, could also promote energy and water conservation, and lessen the requirement for streets. They also could provide an opportunity for the development of much needed affordable housing.

7. The urban design and townscape planning of all multiple-family developments within the El Rancho del Rey Planned Community shall be governed by the Design Manual of the City of Chula Vista. For the purposes of this statement of policy, condominium projects, community apartments, garden apartments, and all other projects under which three or more dwelling units are constructed on a single parcel of land, shall constitute multiple-family developments.

8. It is the express policy of the City of Chula Vista to require, in the El Rancho del Rey area, fine grained mixtures of housing types. As a general rule any development proposal involving more than 50 acres, or 250 dwelling units, should include at least two housing types. In large proposals, in appropriate areas, three or more housing types may be required. The City will not approve attempts to evade this requirement via a series of 49 acre or 249 dwelling unit subdivisions. The following shall be considered as different housing types for the purposes of this policy.

- a. Single family homes on "typical" lots
- b. Apartments
- c. Duplexes
- d. Townhouses
- e. Postage-stamp single family condominiums
- f. Single family detached homes on lots containing 4,000 square feet or less
- g. Patio homes
- h. Zero lot line homes

#### G. Commercial Planning

1. The General Development Plan provides adequate areas for local, community, and regional shopping facilities and services. The plan has purposefully utilized natural and planned open space in a manner which will reduce commercial-residential friction and, through the employment of green interstices or buffers, has limited the impact of commercial activity and traffic upon residential enjoyment.

2. The proposed amendments include the proposal that El Rancho del Rey's principal shopping precinct be located on the easterly side of I-805 and on the southerly side of the East H Street artery (proposed). The said precinct, which would occupy approximately 32 net acres, could accommodate a regional shopping center with not more than 300,000 square feet of gross leasable area. However, because this center could promote the decline of the existing Chula Vista shopping center, full exploration of the possibility of fulfilling the city's need for additional regional shopping facilities through the expansion of the Chula Vista/ Sears shopping complex should be undertaken before final approval is given to this center at I-805 and H Street. If the said expansion reaches fruition, the 32 $\frac{1}{2}$  acres on East H Street could be devoted to a town and country (community level) shopping center, visitor commercial uses, recreational commercial uses, or a combination thereof. A part of this territory could also be devoted to a planned automotive sales and service park. These principles are partially based upon the Sedway/Cooke suggestions for the development of the Rice Canyon area.

3. Whether the subject precinct is ultimately developed as a regional, community, or other type of commercial center, onsite ancillary residential development should be encouraged and authorized at a maximum density of 18 dwelling units per gross acre. The preplanned mixture of multiple-family dwellings and mercantile uses at East H Street and I-805 could create a well ordered and pleasant living-working environment. However, the exact number of dwelling units to be permitted in this area shall be determined by the Planning Commission and City Council at the time of review of development plans.

## H. Sectional Planning Areas

1. The subcommunities or Sectional Planning Areas (SPA) indicated on the plan diagram have been formulated in accordance with the purpose and intent of Section 19.48.050 of the Chula Vista Municipal Code and provide El Rancho del Rey with a high level of internal unity and order.

2. The SPA's are partially designed to promote density flexibility and residential diversity. For example, an individual SPA might have, according to the plan diagram, an area with a specified, overall density range of 3 to 5 dwelling units per acre. Within this area, however, a higher density than 5 dwelling units to the acre may be allowed for a certain subarea or microneighborhood, provided that a lower density is developed elsewhere so that the overall density of the subject area would not exceed 5 dwelling units to the acre. Careful, preplanned attention must be given to such higher density microneighborhoods (see paragraphs F 2 and 3 on page 7) to insure their compatibility with lower density developments on their periphery.

3. The density flexibility discussed in the above paragraph should encourage a diversity in housing types. The microneighborhoods which are developed at a density which is substantially higher than their authorized overall density will probably accommodate condominium, townhouse, patio home, common green, or garden apartment projects. Furthermore, this diversity could alter the magnitude of required grading and reduce developmental costs.

4. While the plan permits the application of preannounced density standards in a flexible manner, it does not sanction the inter-SPA transfer of developmental rights. The maximum, above-range densities of the SPA plan are, furthermore, not transferable between different subareas in a given SPA, unless such subareas are governed by the same overall density classification, or the applicant provides ample evidence that the proposed transfer would substantially improve the spatial or functional relationships of the involved SPA, or would materially increase the quality of the land use, circulation, or conservation pattern thereof. In other words, the total number of units to be allowed within a SPA is fixed. However, the distribution of those units within a SPA may be altered somewhat by the transfer of some units from one portion of a SPA to another portion even though the portions do not carry the same density designation.

5. Although the boundaries of the SPA's are designated on the plan diagram, and the maximum permitted densities of the SPA plan are indicated for each density classification in the said diagram's legend, it should not be construed that the SPA plan is automatically operational. Before any portion of an SPA will be approved for development at a density which is higher than the top of the involved range, a preliminary plan for the entire involved SPA must be reviewed by the City Planning Commission, and approved by the City Council. Upon approval of Council, the preliminary plan shall be adopted as a refinement to the General Development Plan of El Rancho del Rey.

6. The Sectional Planning Areas could be used for any purpose which requires the subdivision of the vast territory of El Rancho del Rey into well-ordered and structured subcommunities. For example, the SPA plan could be utilized as the basis for the systematic creation of open space maintenance districts.

## I. Table of Translation

The following Table of Translation embodies a tabular analysis of the land use, residential density, and population proposed for El Rancho del Rey by the text and diagram of the General Development Plan. The table clearly reflects the plan's dual emphases upon conservation and development.

"Table of Translation"

LAND USE					
<u>HOUSING CATEGORIES</u>	<u>DWELLING UNITS PER GROSS ACRE</u>	<u>DWELLING TYPES</u>	<u>ACRES</u>	<u>NO. OF DWELLING UNITS</u>	<u>POPULATION</u>
Very Low	1 - 2	Residential Estates Single family detached	469	938	3,170
Low	2 - 3	Single family detached	234	702	2,373
Medium/Low	3 - 5	Single family detached Single family attached Cluster housing Townhouses	377	1,885	5,052
Medium	6 - 10	Single family detached Single family attached Cluster housing Townhouses Garden apartments	181	1,810	4,851
Medium/High	11 - 18	Townhouses Garden apartments Low rise apartments	27	486	943
Sub Total			1,288	5,821	16,389
COMMERCIAL					
Retail			53		
Recreation			10		
FIRE STATION					
			1		
SCHOOLS					
Elementary			50		
Junior High			60		
Senior High			50		
PARKS					
Neighborhood			25		
Community			16		
NATURAL OPEN SPACE					
			801		
TOTAL			2,354	5,821	16,389

#### J. Cost Distribution

The costs of certain public facilities required to serve the El Rancho del Rey area shall be distributed by means of a reimbursement plan or plans prepared by the City. The plan shall equitably spread costs among all who benefit by the construction including, as appropriate, the general public of the City. All developments in the area shall be subject to the fees and conditions as established by the City Council through adoption of the reimbursement plan or plans.

#### IV. CONCLUSION

The foregoing text and the accompanying plan diagram constitute a policy bridge between the Chula Vista General Plan and the forthcoming project plans for the development of El Rancho del Rey. The said text and diagram are readily amendable, and therefore should be able to guide the growth and development of the subject area over a protracted period of time. Since the 2,350 acres of El Rancho del Rey will require several years of development, and changes within the free market and public preferences must be anticipated during the course thereof, the policies and principles of the plan have been couched in flexible terms. This flexibility, however, has not diminished the General Development Plan's fidelity to the Chula Vista General Plan and its constituent elements.

Pages 81 and 82 deleted

4.2 See Land Use Plan attached to this final EIR.

## 5.0 ENVIRONMENTAL IMPACT ANALYSIS

### 5.1 Geology

#### 5.1.1 Impact

The project site is generally geologically suitable for development provided several specific recommendations are considered and incorporated into the design of individual project elements. These recommendations and considerations are discussed as measures to mitigate adverse impacts in Section 5.1.2.

With regard to favorable geologic conditions, an evaluation of recognized geologic hazards in the project area indicates that the subject property is not susceptible to tsunamis, seiches, areal land subsidence or volcanic activity. No unique geologic resources were noted or are reported to exist on the property. Unfavorable geologic conditions at the site are associated primarily with potential seismic impacts, as discussed below.

Ground Shaking. The approximate magnitude of seismic ground shaking which can be expected to affect the El Rancho del Rey site is shown on Table 3-1 in the preceding section. This ground shaking is for the "maximum probable" earthquake on faults most pertinent to the subject property. The maximum probable earthquake on a known active fault is generally used for the design of most one and two story residential and light commercial or industrial structures.

Maximum lateral bedrock accelerations of about 0.08 to 0.1g can be expected at the site due to the estimated

maximum probable earthquake on known active faults of regional significance. The estimated recurrence interval for this ground shaking is on the order of 40 to 100 years, or within the life of the proposed structures. Bedrock accelerations of 0.08 to 0.1g can be related to ground shaking of VI to VII on the Modified Mercalli Intensity scale. The effects of Modified Mercalli Intensity VI to VII are summarized on Table 3-2.

The potentially active La Nacion fault system which passes through the project site (see Fig. 3-1 ), is potentially capable of producing significantly greater ground shaking. Bedrock accelerations of 0.5 to 0.6g, and Modified Mercalli Intensities of VII to IX, are considered reasonable for the La Nacion system. It should be noted, however, that the La Nacion fault system is 1) considered potentially active, not active; and 2) possesses an estimated recurrence interval of 300 years for its maximum probable earthquake.

Ground Rupture. As shown on Fig. 3-1 , several traces of the La Nacion fault system pass through the subject property. Any structure constructed astride a potentially active fault trace risks damage resulting from ground rupture due to displacement (either rapid or slow) along the fault, or differential settlement of the foundation due to unequal compaction in different geologic formations juxtaposed by earlier fault movement. For these reasons, earlier geologic investigations of the fault system (1972) resulted in the recommendation that "good engineering practice dictates that for subdivision

planning, permanent structures not be built within the limits of an active fault zone." The fault zone was then defined as a band approximately 250 feet wide bounding the fault trace.

Two significant advances in the study of the La Nacion fault system have been made subsequent to 1972. They include: 1) mapping of a number of additional fault traces on the property; and 2) indications that the fault system should not, by accepted criteria, be considered active, but potentially active. Thus, because the fault may not be active, a re-evaluation of the 250 foot fault zone width may, depending on the recommendation of geologists on specific sites, merit reconsideration. Conversely, however, further evaluation of the additional fault traces, and the possible establishment of additional fault zones wherein permanent structures would be prohibited, appears to be necessary.

Soil Failure. A potential for seismically induced landsliding must be recognized where any marginally stable natural slopes exist on the site. Such slopes may exist where the canyon walls have been erosionally oversteepened by running water or where grading for development entails excavation at the foot of a natural slope or filling at the crest.

#### 5.1.2 Mitigation

Although it is not yet possible to predict precisely when, where and how large the next earthquake will be, a study of regional seismicity indicates that the El Rancho del Rey property is likely to be subjected to at

least one earthquake during the life of the proposed project. It seems improbable that the state of the art with respect to earthquake prevention will have advanced to the stage where the control of earthquakes is possible within the next several decades. Thus, measures to minimize most of the seismic related impacts must be incorporated into the design and construction of structures and support facilities in the proposed project. (See plan principal D.7.)

Ground Shaking. All structures on the project site should be designed and constructed with a consideration of the seismic shaking parameters presented in Table 3-1 . The performance during historic earthquakes of well-designed and constructed one or two story residential structures and light commercial or industrial structures that are founded on bedrock or are underlain by relatively thin deposits of well-consolidated alluvium or terrace deposits has generally proven to be satisfactory.

Compliance with modern building code provisions can generally be expected to minimize structural damage and help to prevent destruction due to anticipated earthquake shaking.

For medium rise structures, and for all critical use or high cost facilities, a "seismic response spectrum" should be developed for the specific site under consideration. The general seismic parameters presented in this report can be used as a basis for the refinement of more specific

building sites.

Ground Rupture. In order to mitigate structural damage due to potential ground rupture, structures should be set back at least 100 feet from known active faults and at least 50 feet from potentially active faults. The previously discussed inferred fault traces should be considered for trenching to determine: 1) whether or not they actually exist; 2) if they are found to exist, their recency of activity; and 3) their potential for ground rupture.

Soil Failure. As specific development plans evolve, it is recommended that detailed soil engineering studies be completed to delineate any areas subject to seismically-induced landsliding.

#### 5.1.3 Analysis of Significance

As discussed in the preceding subsections, proper planning, design and construction can, for the most part, alleviate the potential for seismic damage. As in virtually all portions of Southern California, the El Rancho del Rey property is subject to seismic impacts. In spite of the site's location astride the La Nacion fault system, economically viable engineering subdivision design and construction techniques are available to reduce seismic risk to an acceptable level.

## 5.2 Soils

### 5.2.1 Impact

Preliminary soil investigations indicate that areas of adverse soils exist on the subject property. These adverse soils include loose, compressible alluvial materials in canyon bottoms and highly expansive soils in areas underlain by the Otay Formation. Additionally, landscaping could remove water content from expansive soils and cause contraction of the materials. This could affect foundations and structures.

It is possible that the detailed soil investigations for individual development phases will identify minor groundwater seeps in places along the canyon walls. Should artificial fill or structures be placed on such areas, subsequent seepage could present problems.

### 5.2.2 Mitigation

In order to avoid impacts resulting from construction on adverse soils, detailed soil investigations should be completed to delineate areas where such soils exist. The soil investigation report should establish foundation design criteria to be incorporated into individual development phase grading plans and structural foundation elements. Should extensive areas of adverse soils which are not economically amenable to mitigation be found on the site, such areas should be maintained in a low intensity land use such as open park areas or open space.

Any fills placed in areas where groundwater rises to the surface as a seep should be provided with sub-drains to prevent the buildup of hydrostatic pressure beneath the fill.

#### 5.2.3 Analysis of Significance

It appears unlikely that any unavoidable adverse soils impact will result from development of the subject property. The detailed delineation of areas affected by adverse soils and the property design and construction of structural foundation elements should be effective in preventing soil problems.

Given the identification of potential seepage areas and proper design of sub-drains where necessary, no significant groundwater-related impacts should result from development of the subject site.

### 5.3 Land Form Change

#### 5.3.1 Impact

The principal land form-related environmental impact will be associated with the grading that will be necessary to prepare the site for construction at the proposed intensity of use. While no earthwork volumes have yet been calculated, it is anticipated that a significant amount of grading will be necessary to create safe, viable building pads, roads and drainage facilities. Thus, while no quantitative evaluation of grading impacts is currently possible, a qualitative assessment can be made as shown below:

\* Grading will result in a significant and irreversible modification of the existing land form. Because of the relatively soft to moderately well indurated nature of on-site soils, no excavation or rippability difficulties are foreseen.

\* The land form change will be most substantial in the western & central portion of the project area. This grading is the result of the following elements of the proposed plan: 1) the extension of East "H" St. to link the eastern portion of the project and Chula Vista to I-805, 2) the creation of large flat pads for the commercial area south of East "H" St. and east of I-805, and 3) the higher intensity mixed density residential village north of East "H" St., east of I-805.

\* The grading in this western area will likely involve the filling of the floor of Rice Canyon, the lowering of many ridges and hilltops and the filling of adjacent tributary canyons.

\* In the remainder of the project area the major east-west canyons are largely proposed for preservation while the ridgelines would be lowered and the north-south trending tributary canyons would be filled.

\* Grading will result in temporarily exposed ground surface, free of vegetation, with a resulting potential for erosion and siltation due to surface runoff. If uncontrolled, such erosion could produce increased amounts of sediment to be transported through local drainages to Telegraph Canyon Creek, Rice Canyon and the Sweetwater River.

\*Care will have to be taken to avoid the City of San Diego pipeline running through the western portion of the project site. Potential problems related to grading may exist in that deep fills are not possible (current cover varies from one to three feet) and access must be maintained.

Although no landslides were noted or have been reported in the project area, some of the steeper natural slopes may be only marginally stable. Artificial slopes for the project must be evaluated following field and laboratory testing of on-site soils. Such testing by a certified engineering/geology firm will indicate the maximum slope heights and slope ratios that will provide a reasonable margin of safety against failure. Given standard,

engineering and construction practices, no difficulties are foreseen in designing and creating safe cut slopes and fill embankments.

#### 5.3.2 Mitigation

Measures to mitigate the short-term erosion and resulting siltation potential focus on either prevention of

sediment removal from exposed surfaces, or trapping sediment that has been removed. Reduction of sediment removal can be accomplished by the immediate stabilization of exposed surfaces with grass or ground cover plants, or by limiting grading to the late spring, summer or early fall months when heavy rainfall is unlikely. The use of siltation basins or other temporary drainage control measures may be necessary to prevent the removal of sediment from the grading site.

Grading of the project site should be undertaken in controlled phases whereby adequate replanting of exposed slopes and erosion control measures can be implemented on an on-going and progressive basis until the development portions of the site are completely graded and stabilized.

To avoid either natural or artificial slope stability problems, detailed soils investigations should be completed for each development phase. Artificial slopes shown on the final grading plan should incorporate slope design criteria recommended by the soil engineer and must follow the regulations specified in the Chula Vista Municipal Code.

All large manufactured slopes with high public visibility should be graded to create a natural appearance. In this regard the Hillside Development Policy and Design Criteria of hillside development should be followed. These design techniques include: 1) minimizing the frequency of manufactured slopes greater than 30 ft. in height, 2) contour grading using variable slope ratios not to exceed 2:1 in steepness and 3) landscaping which focuses on

drought resistant material. (See plan principal D.4.)

The use of split or multi-level structures is encouraged to limit the height and exposure of man-made slopes. These structures incorporate changes in grade into the buildings. Also the clustering of development in the more topographically suited areas and the retention of the natural steep slopes would reduce the amount of land form change necessary to develop the project site. (See plan policy C-9 and plan principal D-9)

### 5.3.3 Analysis of Significance

Alteration of the existing land form by the grading process will constitute one of the more significant impacts of developing the subject property. Grading will impact not only the land form but also drainage patterns, floral and faunal resources and existing aesthetic amenities. For this reason, every effort should be made to limit the amount of grading in areas found to be environmentally or aesthetically sensitive. This land form change will, nevertheless, be a significant impact on the natural environment.

## 5.4 Drainage

### 5.4.1 Impact

Because of the limited catchment areas and the narrow, steep canyons characterizing much of the subject property, the potential for on-site flooding is considered to be low. Two exceptions, however, are the Telegraph Canyon Basin, which drains a relatively larger area, and at the mouth of Rice Canyon, where several sub-basins converge.

In the event of a large storm, the wide, flat areas in the western area of Rice Canyon and along Telegraph Canyon Rd. are particularly susceptible to flooding.

The provision of paved and roofed surfaces on the subject property will lead to increased peak runoff volumes and a concomitant increased potential for both on-site and downstream flooding. The projected runoff with full development of the major drainage basins and the net increases..

are as follows:

		Full Development	Increase
Rice Canyon Basin	@ Bonita Rd.	2243 cfs	534 cfs
Telegraph Canyon Basin	@ Otay Lakes Rd.	1661 cfs	557 cfs
	@ I-805	2980 cfs	1473 cfs
Otay Lakes Rd. Basin	A Bonita Rd.	747 cfs	142 cfs

#### 5.4.2 Mitigation

To alleviate the potential for flooding impacts along the Telegraph Canyon Rd. channel, the City has adopted a cross section and alignment for channelization of runoff in this basin. This facility will consist of a grass lined, heavily landscaped, manufactured swale, eastward from a point westerly of where the SDG&E transmission line easement crosses the channel. West of the grass lined channel, the flow will be carried in a concrete lined trapazoidal channel. These facilities are designed to carry the ultimate runoff noted above.

No detailed design studies have been conducted on facilities for the other drainage basins. However, standard subdivision and water course permit process will insure the provision of adequate facilities to accommodate the ultimate runoff from the project.

A previously prepared storm drain Master Plan (1970) may serve as a guide for implementation of future development parcels. This storm drain design plan is based upon ultimate conditions of development as stipulated in the City General Plan. Recommended facilities are proposed in accordance with maximum predicted rainfall intensities, predicted street location, grading activities, soil conditions and slope and may therefore require appropriate up date.

Downstream from the on-site Rice Canyon Basin, the California Dept. of Transportation has constructed various drainage improvements which carry the 50 year runoff to the Sweetwater River flood plain.

#### 5.4.3 Analysis of Significance

As discussed in the preceding subsections, proper planning and implementation of master plans for main drainage arteries would alleviate the potential for flooding, particularly in Rice Canyon and along Telegraph Canyon Rd. Without such, significant drainage and storm runoff impacts may result upon project completion.

## 5.5 Water Quality

### 5.5.1 Impact

Water quality effects of three types can be associated with development of the subject property: siltation, urban runoff and liquid waste disposal. Siltation can result from the erosion of exposed ground surfaces during the grading phase of the project. This impact and measures to mitigate it are discussed in the previous subsection.

Urban runoff consists of storm runoff contaminated by such urban pollutants as hydrocarbons, rubber, metal and dust particles from streets and parking areas, fertilizer and pesticides from landscaped areas, pet wastes, and several others. As development of the subject property proceeds, and urban utilization of the project area intensifies, a concomitant increase in the level of urban runoff will result. Of particular interest is runoff from streets and parking areas. Materials in this drainage have been found to contribute substantially to urban pollution. The Environmental Protection Agency has found that this runoff is similar in many respects to sewage flows. In the first of a moderately heavy storm, more pollution is washed from these parking and travel areas than a sewer line carries in a similar period. However, because the watersheds below the subject property are already largely urbanized, the increased level of urban runoff from the fully developed site will represent a relatively insignificant contribution.

Table 3-6

Notation Code for Evaluating the  
Status of Plant Species in California

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.

Depleted Status

Three floral species considered by the CNPS to be "rare but not endangered" were found on the subject property. These species are listed below along with their status code as interpreted by Table 3-6.

<u>Artemisia palmeri</u> Palmer Sagebrush	1 - - -
<u>Bergerocactus emoryi</u> (Cereus emoryi) Velvet Cactus, Coast Button Cactus	1 - - -
<u>Selaginella cinerascens</u> Mesa Clubmoss	1 - - -
<u>Viguiera laciniata</u> Viguiera, San Diego Sunflower	1-1-1-1

Palmer sagebrush is found in California only at low elevations in southwest San Diego County. It is usually found in moist ravines and sandy drainage bottoms. Although relatively common along the coast in Baja California and on some of the offshore islands, velvet cactus has largely been exterminated by urban sprawl along the Southern California coast and only a few isolated patches remain about San Diego. This cactus is represented on-site by a lone clump, 8-10 feet in diameter. Mesa clubmoss and viguiera, by contrast, are relatively common on-site. They are considered rare by virtue of their appearance in California (and in the United States) only in the southwestern portion of San Diego County. Their range extends into northern California also.

## Fauna

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. The coast horned lizard (Phrynosoma coronatum), which was observed on the property, is considered depleted. Another observed faunal species is likely to be considered depleted in the near future due to heavy commercial exploitation and continuing destruction of its preferred habitat is the orange-throated whiptail lizard. These two species plus the common kingsnake, also observed on-site are all partially protected via possession or bag limit by the California Department of Fish and Game.

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. Species listed on the 1975 Blue List which were observed on-site include the American kestrel (sparrow hawk), loggerhead shrike, Cooper's hawk and Bewick's wren. Although none of these species is thought to be seriously declining in the region, their status should be closely watched. An additional four raptorial species which appear on the hypothetical list of birds for the area also appear on the Blue List. These species include the sharp-shinned hawk, red-shouldered hawk, Swainson's hawk and the barn owl.

### Endemic/Unique Distribution

With the exception of San Diego Ragweed, no floral or faunal species endemic to (found only within) San Diego County were observed on the site.

Three classes of floral endemics as being unique to the State of California include: relict species (dating from ancient flora), patroendemics, and apoendemics. The latter two classes are of interest due to the genetic mechanism(s) of their origin as species. The following endemic floral species were found on the subject area.

#### Relict Species/Paleoendemics

<u>Isomeris arborea</u>	Bladderpod
<u>Jepsonia parryi</u>	Mesa Saxifrage
<u>Simmondsia chinensis *</u>	Goatnut, Jojoba

#### Patroendemic Species

<u>Eriogonum fasciculatum</u>	California Buckwheat
-------------------------------	----------------------

None of these species are considered rare or endangered, or of depleted status.

A number of plant taxa reach their northern distributional limit in San Diego County. These species classified as "northern limitaries" include the following species which occur on the site.

<u>Artemisia palmeri</u>	Palmer Sagebrush
<u>Ferocactus viridescens</u>	Coast Barrel Cactus
<u>Haplopappus palmeri</u>	Palmer Goldenbush
<u>Mammillaria dioica</u>	Fishhook Cactus
<u>Opuntia parryi</u> var. <u>serpentina</u>	Snake Cholla
<u>Salvia clevelandii</u>	Fragrant Sage
<u>Selaginella cinerascens</u>	Mesa Clubmoss
<u>Viguiera laciniata</u>	San Diego Sunflower

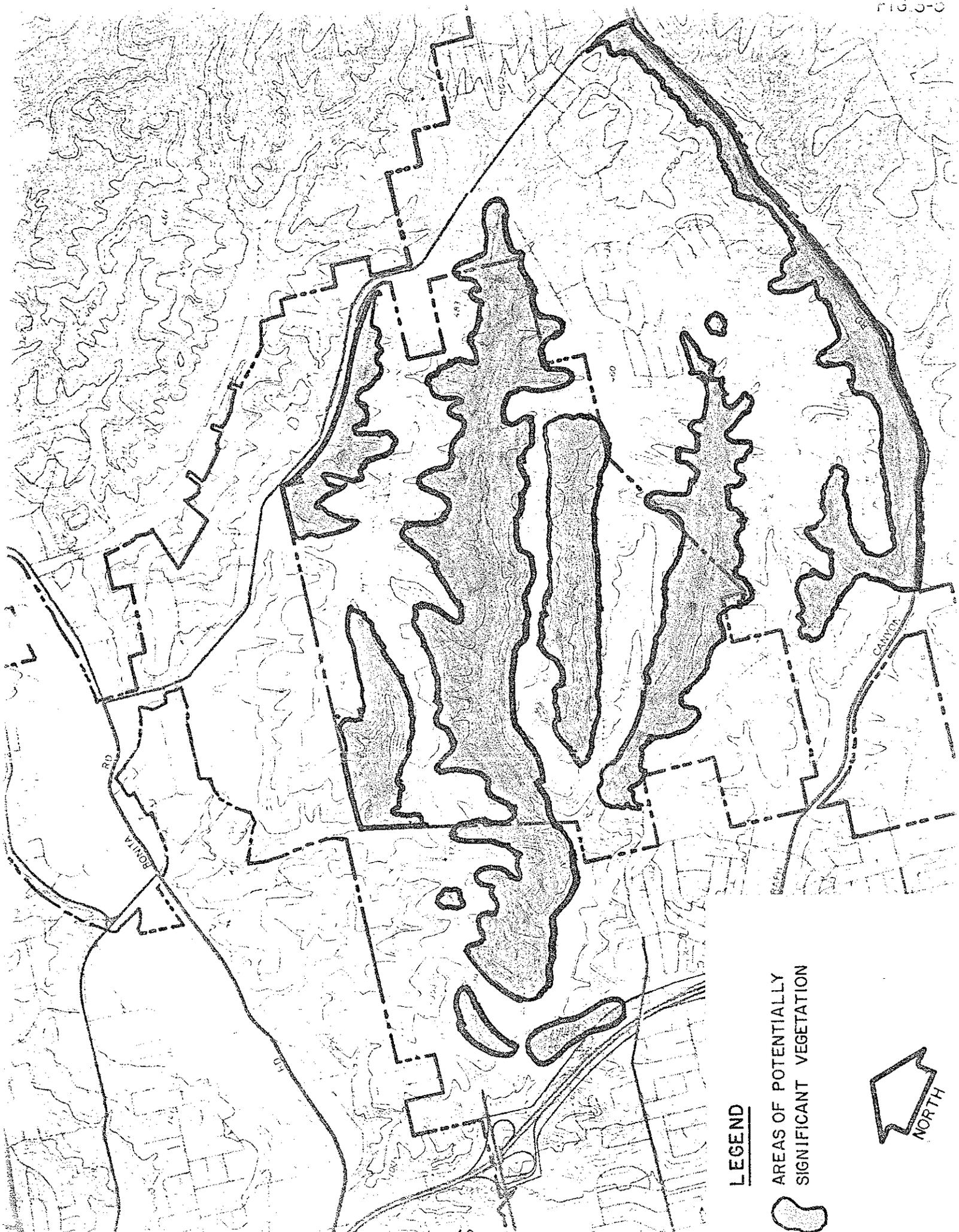
\*This species also has an economic importance in that it produces a lubricating oil. It could be a potential renewable resource to replace non-renewable resource sources. This population is more important in that it grows near the coast and may be genetically altered for growth near the coast. (See Sec. 13.2 Beauchamp)

The CNPS lists Salvia clevelandii as a species of "limited distribution". It is not considered rare and is found from the mountains of middle San Diego County westward, although nowhere is it a dominant species as other sages occasionally are. Two small stands of this species are present on the slope above Telegraph Canyon Rd. west of Otay Lakes Road. Five floral species of predominantly desert distribution are found on the property. These arid species, referred to as desert-coastal disjuncts due to their disjunctive distribution, include goatnut (jojoba), fishhook cactus, bladderpod, fourwing saltbush (Atriplex canescens) and desert mignonette (Oligomeris linifolia).

Of biological interest also is the presence of the cactus wren (Campylorhynchus br nneicapillum) on the property. While this species is fairly common in desert regions of San Diego County, it is considered rare on the coast by experts of local bird distribution. Although not locally abundant, this bird does nest on the property in dense stands of cactus (coast cholla, prickly pear). The cactus wren will be excluded from the area in the future if cactus thickets which are needed for nesting and foraging are removed.

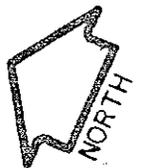
#### Areas of Potential Biological Sensitivity

Areas of biological significance were established based on the criteria listed below and are delineated on Figure 3-5.



**LEGEND**

AREAS OF POTENTIALLY  
SIGNIFICANT VEGETATION



This figure is intended to be general in character. It does not delineate specific territory nor every individual stand or example of a species. There are rare and endangered species outside of these sensitive areas and there are some areas within these zones which do not contain rare or endangered species. The map is intended to delineate areas of potential sensitivity and uniqueness and to tie them together into a meaningful pattern and to retain a viable habitat for these species and the wildlife which inhabits them.

The criteria utilized in developing this figure are as follows:

- Areas which clearly show the integration of the plant species with a more northern affinity with the species of a more southerly affinity.

- Areas involving one or more rare and/or endangered species. Especially these areas that also include a third plant community such as the Riparian growth on the floor of the main leg of Rice Canyon.

- Areas necessary to link the above noted areas into a meaningful and viable form.

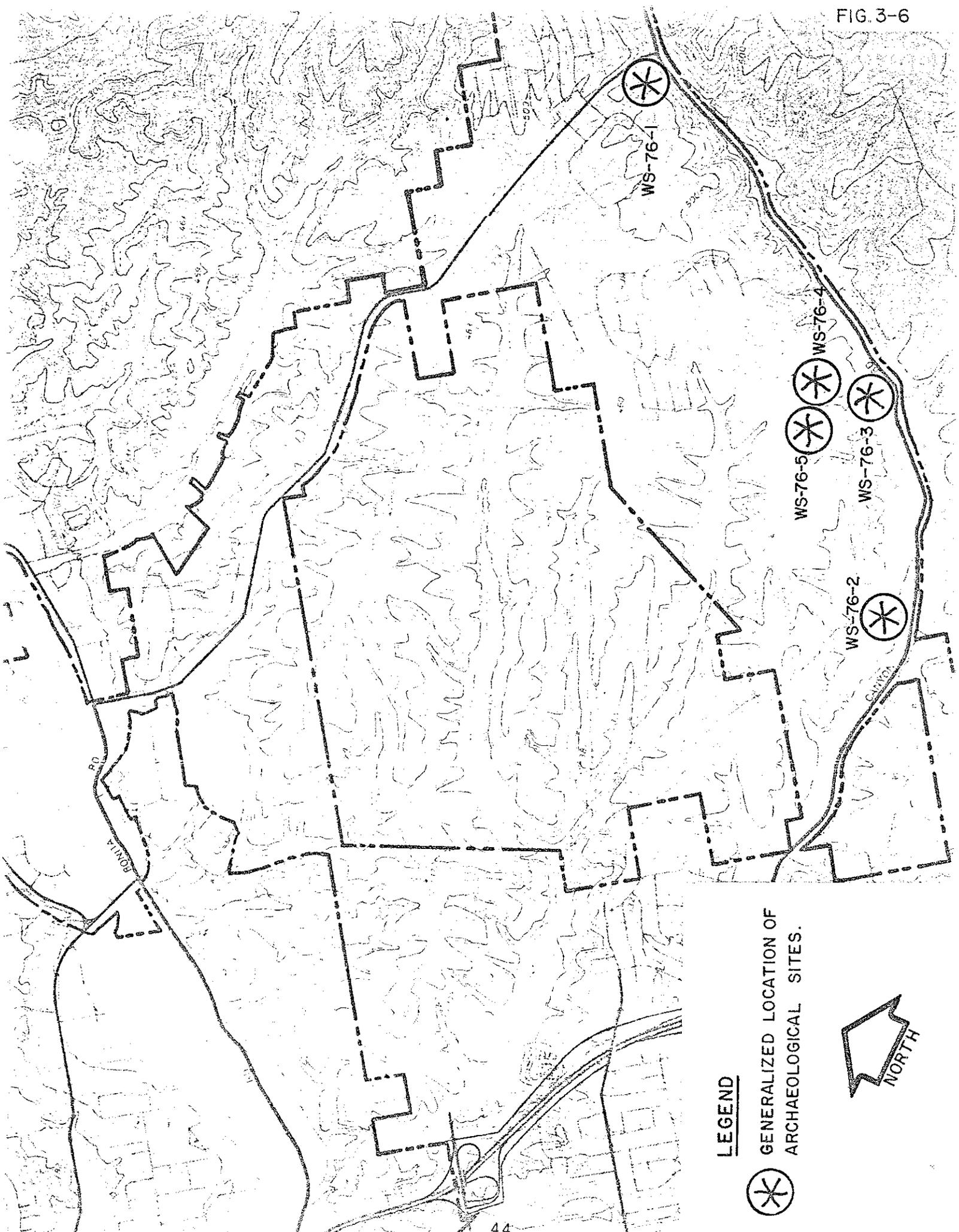
### 3.9 Archaeology

The entire undeveloped portion of this site has been surveyed to determine the presence of any archaeological sites. The northern portion of the property is void of any such features with only 4 artifacts being found on some 1400 acres. The southern portion, near Telegraph Canyon Rd., is of more interest however, an intensive field investigation of that area resulted in the discovery of five archaeological sites. The results of this investigation are included in their entirety as Appendix A . As noted on Table 3-7 and Figure 3-6 these sites vary in location, type and significance. None of the sites were indicative of intensive occupation or use, nor were the sites deemed to possess the research potential which would make them critical or major archaeological resources.

In general, the recorded sites were indicative of sites which were used by hunting and foraging peoples as a segment of their seasonal rounds. In broad terms, the area in and around the project site served as somewhat of a transition area for native peoples.

The carrying capacity of the area, if not the region, could not have supported a large nor permanent native population. Instead, sites within the area should be visualized as a series of resource outposts or resource manipulation zones which attracted small groups of native peoples for short periods of time and involved a limited range of activities. One would not expect to find indices of villages, permanent camps or intensive

use in this area. The marks left by a largely nomadic group or band of foragers can be seen as being slight within the total spectrum of land use and alteration of natural resources.



LEGEND



GENERALIZED LOCATION OF ARCHAEOLOGICAL SITES.



NORTH

Table 3-7

Archaeological Site Comparisons

<u>Site</u>	<u>Site Type*</u>	<u>Elevation</u>	<u>Artifacts*</u>	<u>Vegetation**</u>	<u>Elevation Above Water</u>
WS-76-1	Food Processing (Kumeyaay?)	500'	Manos-Scrapers	Sage, Sumac	100'
WS-76-2	Food Processing (San Dieguito- Kumeyaay?)	400'	Scrapers-Flakes Shellfish	Opuntia, Cholla, Sumac, Sages	100'
WS-76-3	Food Processing (Inland La Jollan?)	350'	Manos-Scrapers Metates-Shell	Opuntia, Cholla, Sumac, Sages	50'
WS-76-4	Food Processing (Kumeyaay?)	420'	Scrapers-Core	Sumac, Yucca Sages	60'
WS-76-5	Flaking Station (Kumeyaay?)	480'	Flakes-Core	Sumac, Yucca Sages	120'
WV-1***	Tool Manufacturing (San Dieguito)	360'	Flakes-Scrapers	Yucca, Sage, Cholla, Opuntia	80'
CE-4****	Tool Manufacturing (San Dieguito)	450'	Flakes-Cores Tools	Cholla, Opuntia Grasses	250'
CE-5	Tool Manufacturing (San Dieguito)	400'	Flakes-Cores Tools	Cholla, Opuntia	200'

\* The reader is urged to refer to the Glossary provided in Appendix

\*\* The reader should refer to Appendix for an explanation of the native use of these various vegetative types.

\*\*\* WV-1 is a site recorded by WESTEC Services on the Windsor Views Project.

\*\*\*\* CE-4 and CE-5 are sites recorded by Gary Fink for the County Engineer Department.

In total, five archaeological sites were encountered on the project. Each site was located, analyzed and given a temporary site designation. For example, the first site was recorded as WS-76-1 denoting WESTEC Services, 1976, site 1. Permanent site numbers will be assigned by both San Diego State University and the San Diego Museum of Man.

WS-76-1 is located on a gradually sloping knoll due west of Otay Lakes Rd. and immediately south of Southwestern College near the northeastern boundary of the project. WS-76-1 is considered to be a trivial site. This site possesses relatively few artifacts, is situated in a badly disturbed area and probably represents a single-use activity area (most probably food-processing activities) for a single family or individual. The research potential of sites like this is negligible. The paucity of artifacts, lack of features and lack of other meaningful data does not allow for, nor dictate the necessity of intensive study or evaluation. As is the case with many food processing areas which lack artifacts and/or features, this site simply does not provide significant data.

WS-76-2 is located approximately 600 feet north of Telegraph Canyon Rd. on a narrow finger or land which extends from a ridge formation to the east and covers an area 125 meters by 10 meters although it may extend into the dense vegetation which surrounds much of the site.

WS-76-2 is considered to be a site of moderate importance. The presence of a wide variety of lithic types, shell fish and lithic tools indicates that this site may have been used

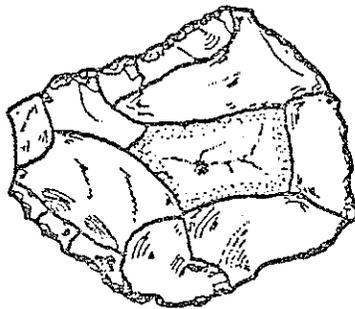
on a seasonal basis by a band of hunting and gathering peoples. Although this site was probably a temporary campsite, it affords the researcher an opportunity to investigate intra-site variance, cultural preferences for lithic and shell fish types, and to equate and analyze this site in a regional context.

Many of the artifacts and flakes noted for this site are similar to items noted along the knolls of Poggi Canyon and adjacent areas thus providing a chance for analyzing this site in a regional context. The presence of shell fish at WS-76-2 is also of some significance; inland sites which possess shell are relatively rare and generally warrant further study. A thorough study of this site in combination with others of the area could provide a great deal of information about the trans-human and settlement patterns of the native peoples of the area.

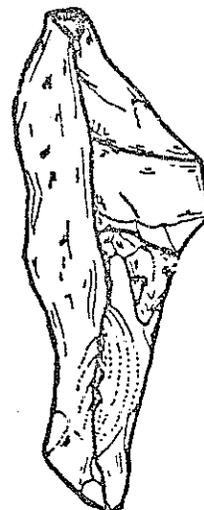
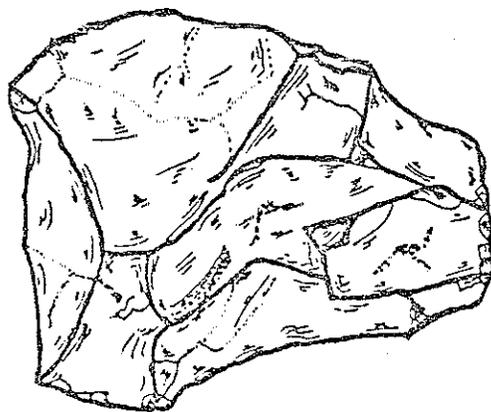
WS-76-3 is located approximately 250 feet north of Telegraph Canyon Rd. along the base of a gradually sloping alluvial deposit at the mouth of a relatively steep northward cutting canyon.

WS-76-3 is considered to be a minor/moderate site, in that it may possess more potential, is apparent on the surface thus the combined ranking of minor/moderate. This site contains a relatively high number of artifacts consisting mainly of food processing implements. (A small plano-convex scraper was removed from the site for further analysis, Figure 3-7 ) These implements appear to have been seriously

A. Plano-Convex Scraper (WS-76-3)



B. Irregular Flake Scraper (WS-76-4)



Note: All sketches are to scale.

Figure 3-7 Archaeological Artifacts

disturbed by land for alteration and other human activity. There exists the possibility that this site may possess some depth although no field tests were conducted to verify this. If the site does possess depth, the importance of the site would be increased. As a result of this disruption it is difficult to estimate the areal distribution of the site although a size of at least 15 meters by 10 meters would not be unreasonable. No depth was noted for this site although it is possible that any previous cultural build-up was removed by recent blading.

WS-76-4 is located approximately 500 feet north of Telegraph Canyon Rd. on a steeply sloping finger of land which extends southward from a high mesa top.

WS-76-4 is considered to be a trivial site. The relative paucity of artifacts and their placement on a sloping hillside may indicate that erosion and natural factors may have seriously impaired the areal context of the site.

It is suggested that this site represents a limited use area which was utilized as a food processing center. Activities which may have been carried out here would include seed removal, plant fiber stripping, bulb extraction and fruit collection. (An irregular flake scraper from this site is depicted in Figure 3-7). The nearby vegetation is of a type which would lend itself to seasonal foraging-collecting activities.

As is often the case with a site which may have seen temporary or limited use, this site possesses little intrinsic archaeological data or potential. The value of this site is that it represents a part of a larger sphere of exploitive influence and thus contributes a small amount of data about land use patterns of the prehistoric occupants of this area.

WS-76-5 is located to the northwest of WS-76-4 on a edge of a relatively flat mesa top.

WS-76-5 is considered to be a site of minor importance; it possesses only limited research potential both because of the relatively sparse number of artifacts and because of previous site disruption.

It is possible however, that this site is somehow correlated with WS-76-4, which is located nearby. Both sites appear to be temporary use areas which possess a rather limited number and type of tools. Although different lithic types were used at both sites, this may represent a temporary difference rather than a cultural variation.

The archaeological value of this site is that it may be associated with the other nearby sites and that it does possess a quantity of artifacts which may have been manufactured either on the site itself or nearby.

In addition to the sites defined above, scattered artifacts were recovered from isolated locales throughout the property. The lack of any continuity or concentration precluded the

noting of these areas as archaeological sites. The presence of isolated tools on ridge tops is a common element of a foraging peoples who made a given tool for a specific temporary function and then discarded it. For the most part these artifacts can be described as irregular flake scrapers and lithic debris (Figure 3-8 ). In general these artifacts exhibit little signs of wear and some carry relatively pronounced patination (wear caused by sun, wind, moisture, etc.). Specific cultural affinity and use is virtually impossible to report although most of these tools are associated with the preparation of plant foods and the gutting of small game.

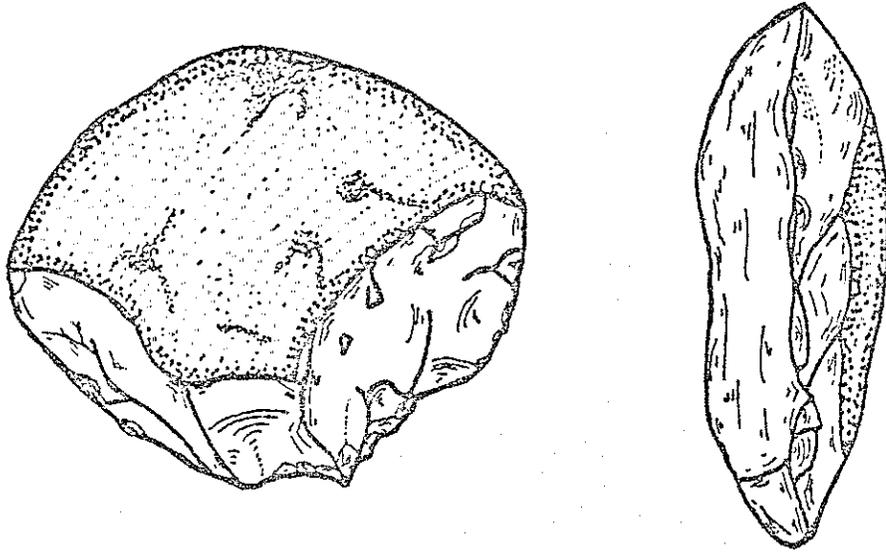
At least three of the sites, WS-76-2, WS-76-3 and WS-76-4 are similar to sites recorded in the Poggi Canyon region south of the project (indicated as sites CE-4 and CE-5 in Table 3-7 ). It is possible that additional field work in the Chula Vista region will document a predictable and understandable settlement or land use pattern for the prehistoric occupants of the area.

#### Paleontological Resources

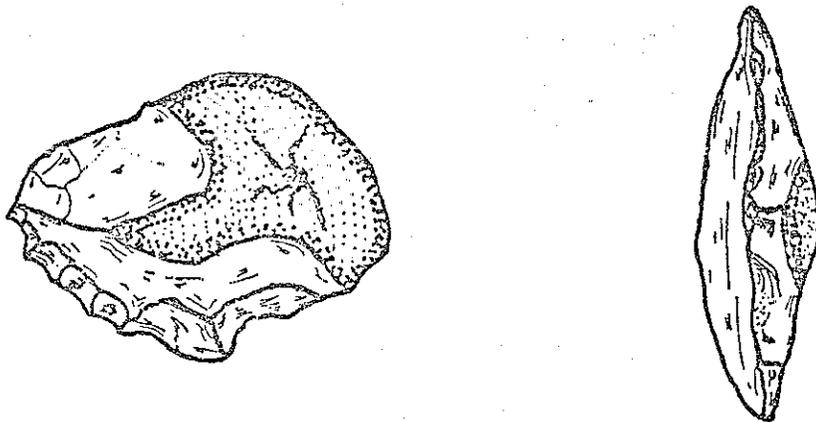
A horizon within the San Diego Formation west of the La Nacion fault zone, inclusive of the western quarter of the project site (see Figure 4-1) contains abundant fossil molluscs. They occur in a laterally persistent bed several feet thick at an elevation of approximately 310-320 feet.

Similar occurrences of Pliocene Molluscan fauna in the San Diego Formation are common and widespread throughout the region as evidenced by numerous fossil finds immediately southwest and northwest of the project site. Both megafossils and microfossils are fairly well known in the San Diego Formation and are not generally considered unique or unusual.

A. Irregular Flake Scraper (WS-76-0)



B. Irregular Flake Scraper (WS-76-0)



Note: All sketches are to scale.

Figure 3-8 Archaeological Artifacts

### 3.10 Historical Resources

The Natural Resource Inventory for the County of San Diego prepared by the Integrated Regional Environment (IREM) project of the County of San Diego Environmental Development Agency indicates no places of historical interest within the project site. This fact has been confirmed following on-site analysis.

Near the north central portion of the property at the crest of Hill No. 478 there are four features consisting of 10' x 10' excavations about 3 ft. deep. They have been subject to considerable erosion and in recent years as nearby populations have increased, the quality of these features has decreased substantially. Associated materials were very limited and consisted of broken adobe bricks, burned and unburned wood fragments and a broken pot-metal military vehicle handle.

Because of the size, shape, location and relative positioning, it is suggested that these features are the remains of a World War II era military or civil defense installation.

### 3.11 Schools

The El Rancho del Rey Community is served by two school districts, the Chula Vista City School District, which provides elementary education (kindergarten through sixth grades); and the Sweetwater Union High School District, which provides junior and senior high school education. The latest available enrollment total for the Chula Vista City School District is 9,049 for schools in the Chula Vista area, while that of the Sweetwater Union High School District is 11,919 for schools in the Chula Vista area.

Three elementary schools currently serve development within the subject property. They are Tiffany, Allen & Halecrest Elementary Schools. Bonita Vista Junior and Senior Highs serve most of the project area with Hilltop Senior and Junior High Schools serving the western limits of the project area. As is the case with many educational jurisdictions, these two districts are experiencing reduced levels of student enrollments in older sections of the City, while areas of realized or potential development contain facilities that are overcrowded. Tiffany, Allen & Halecrest Elementary are currently operating over capacity levels, while Bonita Vista Junior & Senior Highs have been extended beyond their design capacity.

The elementary school district currently has three undeveloped 10 acre school sites within or near the planning area and the secondary school district has a junior high school site to the south of Telegraph Canyon Rd. adjacent to Chula Vista Community Hospital.

### 3.12 Open Space/Parks

The project site currently provides a passive open space function. There are presently parks and organized recreational facilities located within the developed portions of the project site. There is also evidence of informal, unauthorized recreational uses taking place on-site; some of these activities include hiking, horseback riding, motorcycling and off-road vehicle use. Indirect evidence (expended cartridge cases) of either casual shooting or hunting activities have also been noted.

From a broader perspective, two major County regional parks are planned in proximity to the project site. The Sweetwater Regional Park, located on the north side of Chula Vista, is projected to contain 5,000 acres and provide a variety of general recreation, water recreation and cultural activities. The Otay Reservoir, located east of the project site is projected to include 4,900 acres and will provide facilities for general recreation, water sports and off-road activities. There are also beaches within reasonable driving distance of the project.

### 3.13 Police/Fire/Other Services

#### 3.13.1 Police

Police services for the area of the project which are within the City limits are provided by the Chula Vista Police Department. Service emanates from the main station at the Civic Center, approximately 4.4 miles from the project site. The City maintains an operating force of 92 Peace Officers and utilizes 40 vehicles for patrol and investigative purposes. Police service in the unincorporated territory is the responsibility of the San Diego County Sheriffs Department.

There are no special or unusual types of crime committed in the area of the proposed project; most law violations relate to its undeveloped, semi-isolated nature and consist mainly of juvenile delinquency and trespassing complaints. Patrol of the area is generally accomplished through the use of motor vehicles and off-road motorcycles.

#### 3.13.2 Fire

As in the case of police protection, more than one agency is responsible for fire protection. Protection for those portions of the project within corporate limits are available from the Chula Vista Fire Dept. while the unincorporated areas surrounded by City jurisdiction are not officially given fire protection from any agency at this time. As a practical matter, however, California Division of Forestry and/or the City of Chula Vista may be providing this safeguard in the public interest.

The response time to this site would be approximately 30 minutes and they have capabilities to fight structural fires.

The unincorporated areas north of the City limits are provided fire protection by the Bonita-Sunnyside Fire Protection District.

The closest Chula Vista facility to the project site is Fire Station #4, located less than one-half mile from the eastern project boundaries. The western project boundary is approximately 1.5 miles from Station #2 at 80 East J Street and 1.1 miles from Station #3 at 266 East Onida. These distances translate into a response time of from 3 to 4 minutes depending upon existing traffic conditions.

### 3.13.3 Other Service

Emergency ambulance services to the project area is provided by privately-franchised ambulance service. The closest hospital facility is the Chula Vista Community Hospital located at 751 Dora Lane. This 131 bed facility offers a full range of health care services including 24 hour emergency service.

Solid waste service to Chula Vista is provided by the Chula Vista Sanitary Service Company, the City's franchised contractor. This company provides service on a weekly basis for all residential and commercial areas through individual contract agreements.

Solid waste is ultimately transported to the sanitary landfill site operated by the County of San Diego on Otay Valley Rd., one mile east of its intersection with I-805. This site is located approximately 3.5 miles from the project site and has a projected lifespan of 9 to 12 years.

### 3.14 Utility Services

#### 3.14.1 Electricity

The project area is currently served by the San Diego Gas and Electric Company. Major distribution facilities include power lines along Telegraph Canyon and Otay Lakes Roads. Several of the currently developed out-parcels receive service from distribution facilities emanating from these lines. In addition, a 250 foot wide 138 KV San Diego Gas and Electric easement and towers traverse the project site in a northeast to southwest direction. In general, no structures can be built within the easement, however, roadway construction is normally allowed; the primary concern is maintenance of access. Expansion plans call for additional links within the easement, an extension of underground facilities on H Street west of Otay Lakes Rd., and construction of a Bonita Substation.

#### 3.14.2 Gas

Natural gas service to the project area is also provided by the San Diego Gas and Electric Company. While gas lines are laid within the project site, major distribution facilities include an 8 inch high pressure main in Telegraph Canyon Rd. and a 5 inch high pressure main in H St. extending west from the 8 inch main in Otay Lakes Rd.

### 3.14.3 Water

Approximately ninety-five percent of the water for most of San Diego County's residents is currently imported by the San Diego County Water Authority from the Colorado River through facilities of the Metropolitan Water District of Southern California. Over the next several years half of the water from the Colorado River will be diverted to Arizona. Before the advent of the 1975-1977 drought, the Water Authority had been scheduled to receive northern California water through the State Water Project beginning in about 1977. State Project water, at this time is not being supplied to Southern California due to the drought. Long-term contracts for imported water, for the San Diego County Water Authority would provide 597,997 acre-feet of annual supply. This is enough to fill the needs of 2.3 million people at 1972 use rates of 0.26 acre-foot per year per person (San Diego County Water Authority, 1972). Assuming per capita use rates remain at the 0.26 acre-foot/year/person, the 597,997 acre-feet would assure sufficient water for the Water Authority service area (most of the population of San Diego County) until approximately 1992 or 1993 using San Diego Comprehensive Planning organization Series IV population projections. According to the Comprehensive Plan for the San Diego Region, Water Resources (Comprehensive Planning Organization of the San Diego Region, 1975), the water requirements and sources of supply are adequate in general to meet present and future needs (1995).

There is a need to provide treatment capacity for State Project water and to provide additional storage. In general, transmission capacity is adequate for long-range needs, if increased capacity is added in a few jurisdictions. Costs of delivered water will increase due to the increased energy costs of pumping.

A recent publication, "Water in the San Diego Region 1977", contains information that indicates that the Municipal Water District of Southern California (MWD) may not be able to supply all the water anticipated by its member agencies, one of which is the San Diego Water Authority.

Two recent events have decreased this water availability to the region served by MWD and thus to the San Diego area: 1) an injunction on Los Angeles limits the amount of water available to it from Owens Valley, and 2) because of low rainfall in northern California, State Project Water was not available since March 1, 1977. Both of these conditions indicate that there is not a guaranteed amount of imported water available to the San Diego area in the short or long term future. CPO draws the conclusion in the report that there are two highly variable factors affecting water availability in San Diego - the volume of water supply available to MWD and the willingness of residents to finance local distribution systems. Water service to the specific project area is provided by the Otay Municipal Water District, which receives water from

the Second San Diego Aqueduct near Otay Lakes Rd. and Telegraph Canyon Rd. At that location, a pump station, chlorination station, reservoir and storage tank areas exist. However, the Otay Municipal Water District anticipates that assuming availability of water from the Metropolitan Water District transmission facilities can be provided to serve future domestic needs in the Chula Vista area.

Southwestern College and surrounding residential developments are currently served by a 12 inch main in Otay Lakes Rd. and East H St. Existing facilities also include a 20 inch main running along Telegraph Canyon Rd. which provides water to residential areas southeast of the project site. The Otay Municipal Water District maintains an emergency connection to the 40 inch City of San Diego steel pipeline which transverses the project site in a generally north to south direction.

#### 3.14.4 Sewers

The project will be served by sewer lines operated by the City of Chula Vista. The sewers within the Telegraph Canyon Basin will be connected to an existing 8 inch line in Otay Lakes Road and the 15 inch trunk line in Telegraph Canyon Rd. which links to the Metro facility via existing city lines. Those future lines within the Rice Canyon Basin will be connected to the Spring Valley Outfall sewer which belongs to the Spring Valley Sanitation District. The Outfall sewer is located about 1.7 miles downstream from the northwesterly

boundary of the project.

Sewage from the project will be conveyed through the regional sewer system to the San Diego Metropolitan Treatment Plant where it will be treated and discharged into the Pacific Ocean. Approximately 120 million gallons of sewage are treated daily at this plant.

#### 3.14.5 Telephone

The planning and provision of telephone service to the project area is the responsibility of the Pacific Telephone & Telegraph Co. While telephone facilities currently exist within developed portions of the project site, 400-pair feeder lines in Telegraph Canyon Rd. and Otay Lakes Rd. provide service to currently developed out-parcels. Pacific Telephone also has constructed a two acre service facility north of Telegraph Canyon Rd. to the west of Apache Dr.

#### 3.15 Transportation/Access

Major access to the project site is provided by I-805. East-West collectors include Bonita Rd., East H Street, Telegraph Canyon Rd. and to a lesser extent East J Street. North-West circulation is currently provided by Otay Lakes Rd. and Buena Vista Way. There are small portions of other north-south collectors which will likely be extended in the future; these are Paseo del Rey, Paseo Ladera and Paseo Ranchero.

The latest traffic volumes on these roads which currently carry traffic are presented in Table 3-8.

Table 3-8

Current Traffic Counts

<u>Roadway</u>	<u>Location</u>	<u>Current ADT</u>	<u>Date</u>
Telegraph Canyon Rd.	I-805 w/o Oleander & Crest	17,450	4-77
	e/o Oleander/Crest	15,296	4-77
	w/o Brandywine Ave.	16,295	8-77
	e/o Brandywine Ave.	16,426	8-77
	w/o Buena Vista Way	17,964	9-77
	w/o Otay Lakes Rd.	17,226	4-77
Otay Lakes Rd.	s/o East "H" St.	10,862	5-77
	s/o Camino del Cerro Grande	19,490	5-77
East "H" St.	@ I-805	16,726	2-77
	w/o Otay Lakes Rd.	4,444	8-77
Bonita Road	w/o I-805	22,390	8-77
	w/o Willow	17,837	4-77
	e/o Willow	19,953	5-77
	w/o Otay Lakes Rd.	20,282	8-77
I-805	Bonita-Telegraph Canyon Rd.	44,000	1977
Buena Vista Way	n/o Telegraph Canyon Road	1,925	5-77
East "J" St.	e/o I-805	2,938	5-77

Key: n/o - North of  
s/o - South of  
e/o - East of  
w/o - West of

East of Paseo Del Rey Telegraph Canyon Rd. is a two lane road with some left turn lanes provided. The most congested section of this road is just to the east of the I-805 interchange. The City of Chula Vista has recently widened Telegraph Canyon Rd. between I-805 and Paseo Del Rey to provide a striped median and two travel lanes in each direction. The congestion previously experienced on Telegraph Canyon Rd. in this area has been alleviated and shifted easterly near the point of transition from 4 to 2 lanes. With the development of adjacent properties in this area, a third travel lane in each direction will be installed as will a raised median.

Signals at the intersection with Crest Dr./Oleander Ave. have been installed by the City of Chula Vista. The California Dept. of Transportation will be signalizing the off-ramps and Halecrest Dr. in 1978.

Otay Lakes Rd. and a portion of East H St., west of Otay Lakes Rd. are both constructed with considerable rights-of-way, however most of Otay Lakes Rd. to the north is striped for two lanes. Most of Otay Lakes Rd. south of East H St. contains four lanes while H St. is wide enough for 4 lanes and parking. Buena Vista Way, the residential collector serving currently developed out-parcels, contains two lanes.

Intra-state and north-south travel in the region is served by I-5 and I-805 which traverse the Chula Vista area without signal interruption, facilitating through traffic and allowing segregation of the local circulation network.

Local public transportation in the City is provided by Chula Vista Transit which has 3 routes adjacent to the site.

### 3.16 Socio-Economic Factors

The property lies within Census Tract 29 including lands within the City of Chula Vista and the County. The following table presents pertinent demographic data regarding Census Tract 29, the City of Chula Vista and the County of San Diego.

Table 3-9

#### Demographic Data

	<u>1970 Population</u>	<u>1975 Population</u>	<u>Percent Increase</u>
Census Tract 29*	3,358	6,258**	86.4
City of Chula Vista	67,901	75,137	10.7
County of San Diego	1,357,854	1,559,505	14.9

\* A portion of Census Tract 29 containing the subject property is currently vacant, hence contributing little to 1970 and 1975 population totals.

\*\* This total for purposes of comparison, includes Census Tract 30, formed out of Census Tract 29 subsequent to the 1970 Census.

These figures are indicative of the trend of urban expansion currently underway in the eastern Chula Vista area. As indicated above, these Census Tracts possess growth rates exceeding those of both the City of Chula Vista and County of San Diego.

A similar conclusion can be drawn when viewing housing data for these same areas presented in Table 3-10.

Table 3-10

Housing Data			
	1970 Housing Total	1975 Housing Total	Percent Increase
Census Tract 29	911	1,896**	108.1
City of Chula Vista	22,951	27,320	19.0
County of San Diego	447,739	578,899	29.3

\*The portion of Census Tract 29 containing the subject property is currently vacant, hence contributing little to 1970 and 1975 population totals.

\*\*This total for purposes of comparison, includes Census Tract 30, formed out of Census Tract 29 subsequent to the 1970 Census.

As of 1970, Census Tract 29 (including the area formed into Census Tract 30) contained 4.9% of the City's population total and 4% of its housing inventory. By 1975, these proportions rose to 8.3% and 7% respectively.

The Comprehensive Planning Organization "Series 4" forecast of the 1995 Chula Vista population (as adopted by the City Council) is estimated to be 131,000.

The Chula Vista General Plan states that:

The rate of Chula Vista's growth will depend on such factors as rate and quality of land development, quality of civic development, and relative convenience to both shopping and work centers. Chula Vista will continue to be tributary to San Diego but will depend increasingly, for its employment, on its own industries and commercial activities.

As of 1975, Chula Vista still relies quite heavily upon the metropolitan San Diego area as an employment generator. Only 19.5% of Chula Vista "heads of household" work in the Chula Vista-Sweetwater geographic area. A large proportion of those remaining are employed in the metropolitan San Diego region.

Other pertinent data describing Chula Vista's social environment is include in the following table: 3-11:

Table 3-11

Dwelling Unit Composition

<u>Dwelling Type</u>	<u>1970 Total (% Composition)</u>	<u>1975 Total (% Composition)</u>	<u>Percent Change</u>	<u>Percent Vacant</u>	<u>Persons/ Household</u>
Single-Family	13,965 (61%)	15,286 (56%)	+ 9.5	3.24	3.38
2 - 4*	1,612 (7%)	3,733 (14%)	+131.6	3.91	2.66
5+	4,323 (19%)	6,160 (23%)	+ 42.5	5.21	1.94
Mobile Home	2,120 (9%)	2,115 (8%)	- .2	0	1.72
Miscellaneous**	--	26 (.1%)	--	--	--
Totals	22,951 (100%)	27,320 (100%)***		3.52	2.83

\* Includes attached single-family dwellings (758 attached single-family dwellings were constructed between 1970 and 1975).

\*\* Includes motels and hotels.

\*\*\* Deviation in totals due to rounding.

## 4.0 Project Description

### 4.1 Text of the Land Use Plan

#### Proposed Amendments to the General Development Plan and Schedule of the El Rancho del Rey Planned Community Zone established in 1970

## I. INTRODUCTION

Pursuant to City Council request, the Planning Department, in conjunction with other municipal line departments, and the local school districts and public utility companies and services, has prepared comprehensive amendments to the El Rancho del Rey General Development Plan and Schedule of 1970. These amendments constitute the substance of the plan diagram and text of this report.

The proposed amendments to the El Rancho del Rey plan are predicated upon the goals, general objectives, statements of policy, standards, and principles of the Chula Vista General Plan and its several elements, and are substantially consistent therewith. However, while these amendments are consonant with the spirit and purpose of the basic provisions of the P-C--Planned Community Zone, Chapter 19.48 of the Chula Vista Municipal Code, they do not meet all of the detailed requirements thereof. For example, the proposed amendments do not contain a regrading plan or provisions for erosion control.

Furthermore, the amendments do not address anticipated employment in the proposed commercial precinct, or methods of limiting the noise, odor or dust generated in connection therewith. These detailed requirements, as important as they are, should be met at the project planning stage of development, and are beyond the scope of "long-range, comprehensive planning" in general, and the general development plan of a large planned community zone in particular. It is therefore the intent of the city administration to propose legislation which would delete the subject detailed requirements from the P-C zonal regulations.

The proposed amendments are designed to promote the orderly growth, development, and conservation of the several thousand acres in question. They are also intended to provide the developers of the El Rancho del Rey area with sufficient economic incentive to build the residential areas, commercial precinct, roads, and infrastructure recommended in the following text and the accompanying plan diagram. Without economic incentive, neither the effective development nor the planned conservation of El Rancho del Rey can reach fruition.

## II. GOAL AND GENERAL OBJECTIVES

### A. Goal

The promotion of the orderly and economic growth, development, and conservation of the El Rancho del Rey territory, through comprehensive city planning, is the goal of the El Rancho del Rey General Development Plan and Schedule.

### B. General Objectives

1. The improvement of the existing and projected patterns of land use in El Rancho del Rey.

2. The protection of the natural land forms and ecosystem of El Rancho del Rey and adjacent areas.
3. The establishment of an effective pattern of circulation within El Rancho del Rey, and an economic, useful, and convenient network of transportation linkages between the subject community and other parts of the Chula Vista Planning Area.
4. The provision of adequate storm and sanitary sewers.
5. The conservation of water, fossil fuels, and natural vegetation.
6. The provision of affordable housing, where such is practicable.
7. The provision of adequate police, fire, park, recreation, and other municipal services.
8. The promotion of well ordered and aesthetic spatial relationships, and the establishment of a qualitative townscape for the natural and manmade environments of the subject area and adjacent territories.
9. The provision of guidance for the preparation of precise development plans for the various portions of the overall General Development Plan.
10. The provision of additional housing for the increasing population of the San Diego region.

### III. STATEMENTS OF POLICY; PRINCIPLES AND STANDARDS; FEATURES AND PROPOSALS

#### A. General

1. The El Rancho del Rey General Development Plan shall be regarded as the official Land Use Policy of the city, and its text, graphics, and elements shall be regarded as the comprehensive plan for the development and conservation of El Rancho del Rey.
2. The El Rancho del Rey General Development Plan shall be the principal specific and local district plan of El Rancho del Rey, and all zoning plans, public works plans, subdivision plans, transportation plans, development proposals, and capital improvement programs affecting El Rancho del Rey shall be governed by the said plan's provisions.
3. The land use pattern, circulatory system, and spatial relationships of El Rancho del Rey should be consistent with the suburban order of the Telegraph Canyon and Bonita-Sunnyside communities.
4. It shall be the policy of the City of Chula Vista to require development in the El Rancho del Rey P-C zone to proceed in a manner which protects the topographic character of the area. Therefore, the predominant ridges and canyons shall be determining factors in determining the form and character of development.

5. The development of El Rancho del Rey should be consistent with public safety, including seismic safety. Therefore, the traces of the La Nacion Fault and its splinter faults shall also determine the pattern of development within the subject territory.

6. The City of Chula Vista's adoption of overall plans for the provision of water and sewer service to El Rancho del Rey by drainage basin shall be prerequisite to the further substantial growth and development of the subject community. This plan shall be prepared by developers with the cooperation of the City.

7. The Chula Vista City Planning Commission shall submit annual reports to the City Council on the status of the El Rancho del Rey General Development Plan and the progress of its execution.

8. The City shall prepare a reimbursement plan or plans to equitably distribute the costs of improving East "H" Street and other street segments and public facilities essential to the El Rancho del Rey area. All developments in the area shall be subject to the fees and conditions as established by the City Council through adoption of such plan or plans.

B. Design and Townscape Planning

1. The text and plan diagram of the El Rancho del Rey General Development Plan propose the development of a well balanced district which would be characterized by a diversity in land use and a strong emphasis upon natural and man arranged open space. The General Development Plan prescribes a suburban character for El Rancho del Rey and allocates large tracts of land to "estate" and low and medium density residential developments. The plan recognizes that the single family dwelling will be the dominant land use of the subject area, but permits and encourages cluster, patio-home, and townhouse developments; garden apartment projects; and other "new concept" residential developments which could provide interesting land use patterns and spatial relationships and thwart suburban boredom. This boredom, which is too prevalent in California, is usually attributable to a lack of variety in land use and a lack of verve and luster in urban design.

2. In general, the bulk, height, parking, open space and other pre-announced standards of the City of Chula Vista's zoning regulations shall govern, where appropriate from a land use standpoint, developments within El Rancho del Rey. However, these preannounced standards should be regarded as minimum requirements, and the Planning Commission or the City Council may require higher standards during the course of either's review and consideration of specific developmental proposals.

3. Deep greenbelts shall be established and maintained along Telegraph Canyon and Otay Lakes Roads, and the north leg of Rice Canyon in accordance with the Open Space General Plan Element. (See the accompanying plan diagram.)

4. Signs shall not be permitted within the El Rancho del Rey Planned Community unless they conform to a comprehensive sign plan which has been previously reviewed by the Planning Commission and adopted by the City Council.

5. At least two sites which provide panoramic or interesting directional vistas should be available as public viewpoints, and pedestrian and/or vehicular access should be provided thereto. At least one such site should be considered for acquisition by the City.

6. The General Development Plan calls for the subdivision of El Rancho del Rey's 2,350 acres into a number of structural planning units referred to in the Sedway/Cooke report as micro-neighborhoods. Preservation of the dominant east-west canyons will preclude use of the traditional neighborhood planning unit and will require instead the development of linear subcommunities which will be defined by the canyon areas. Each subcommunity will be composed of a number of micro-neighborhoods, which in turn will be defined primarily by similarity of housing type. Each micro-neighborhood should have a small common recreational area, a common access road, and common landscape theme. The recreational area could consist of a relatively small space for ball and frisbee throwing, and perhaps a hard court for basketball practice or other informal game playing. This small recreational area should be owned and maintained by a homeowner's association made up of the membership of the micro-neighborhood to provide some permanent social structure for the group. Groups of micro-neighborhoods will then comprise a subcommunity which will be similar to a neighborhood but more linear in form. Residents of the same subcommunity probably will attend the same elementary school and utilize the recreational facilities of the school and adjacent park in common.

### C. Conservation

1. The El Rancho del Rey General Development Plan places a strong emphasis upon conservation. It advocates the preservation or scientific relocation of rare and endangered biological colonies, and their protection from the destructive activities associated with human settlements, where such is feasible. In short, the plan proposes a balance between the natural and manmade environments.

2. The natural open space and land forms of El Rancho del Rey should determine the subject territory's structure and basic design. Although the north leg of Rice Canyon should be preserved almost in its entirety\* the preservation of the middle and south leg could be confined to their natural floors. As land is subdivided, however, the preserved floors of the middle and south legs of Rice Canyon should be complemented by adjacent common greens, parkways, or other usable open space.

3. The City of Chula Vista regards the north leg of Rice Canyon as vital public open space, and recognizes the need for public participation in the maintenance, development, and conservation of the subject territory. The city does not regard the maintenance, development, or conservation of other open space within El Rancho del Rey as being, at the present time, within the public charge. The latter should take the form of private open space reserves, common greens, open space easements, or open space maintenance districts.

4. While the grading of territory within El Rancho del Rey should be carefully controlled, and should be sensitive to the natural environment of the community in question, it must be recognized that the rugged terrain confronting developers cannot accommodate urbanization on an economic basis in the absence of considerable grading.\*\* Such grading shall be contoured at the edges of

\* The specific action policy of Goal No. 5 d of the text of the Chula Vista General Plan reads: "Identify and preserve strategic areas, such as lookout areas, lake shores, deep and interesting canyons."

\*\* The specific action policy of Goal No. 5 b, at page 22 of the Chula Vista General Plan, calls for the establishment of "controls to prevent ugly scarring and grading in development of eastern lands."

a project so as to maintain a natural appearance even though substantial earth-work is performed. Within a project, grading shall not be solely designed to alter the topography to fit predetermined lot sizes and floor plans, but shall contemplate use of some dwelling types which can be better fitted to the land and pad types which minimize exposure of manmade slopes. While it is not the intent of the City of Chula Vista to literally apply the provisions of the Hillside Modifying District to El Rancho del Rey, the purpose and objectives of that regulation do apply and the staff report on each development in El Rancho del Rey shall contain a statement as to the extent of compliance or noncompliance with the provisions of the Hillside Modifying District. The City's hillside development policy as contained in the "Design Criteria for Hillside Development," adopted by the City Council on February 11, 1975, shall apply in the El Rancho del Rey area.

#### D. Circulation and Public Facilities

1. The street system of El Rancho del Rey shall meet the traffic and land service needs generated by the development of the area's several thousand acres and shall by design promote conservation of natural open space, the establishment of a suburban order, the reduction of the need for grading, and the encouragement of economy in land development.

2. The plan depicts an arterial and collector street network which is designed to preserve the open space of Rice Canyon and the area north of Ridgeback Road to the maximum extent. If traffic congestion increases to undesirable levels - or if it is determined that the needs for emergency service cannot be met by the proposed circulation plan, then a north-south road linking East "H" Street to Ridgeback Road, and crossing the north leg of Rice Canyon may be required.

3. The construction of the East H Street artery to the requirements of the City, and the development of major, requisite public facilities, or the City's adoption of a developer-initiated program therefor, shall be prerequisite to further substantial growth and development in the northerly portions of El Rancho del Rey, and it shall be the City's policy that development which is tributary to H Street shall progress from west to east.

4. East-west equestrian and hiking trails within the three legs of Rice Canyon already exist and some will be preserved as development of adjacent lands occurs. It is the policy of the City to also make provision for at least one north-south trail which shall utilize such existing rights of way as the San Diego Otay Water line and the SDG&E easement. Additional north-south routes or variations and adaptations of the basic north-south route may become apparent at such time as development proposals are made and grading plans are developed.

5. Bicycle routes and facilities should also be established within the principal canyons of the district, as well as along the main streets of El Rancho del Rey in accordance with the Bike Routes General Plan Element, and adopted implementing plans.

6. The El Rancho del Rey District should be served by the City of Chula Vista's mass transit system. This service should be planned and implemented by the Director of Public Works and the Transit Coordinator.

#### E. Public Facilities Planning

The General Development Plan, with the exception of a conceptual network of arterial and collector streets, does not depict the various public facilities required to serve and support the El Rancho del Rey area. It will be necessary that comprehensive plans for the various facilities be developed prior to substantial growth and development of the subject community.

In general, public facilities shall be designed to accommodate the ultimate loads projected to be encountered by the subject facility. Public facility designs shall promote conservation of natural open space, promote conservation of energy, minimize grading through open space, and foster creation (where necessary) of slopes of the area.

The upper limits of density ranges approved for development of El Rancho del Rey shall be used in design of public facilities to serve the area. Where specific sub-areas have been developed (or assured) having densities other than such upper limits, the actual density may be used.

Churches, private clubs, and similar public and quasi-public uses may be permitted by the Planning Commission through the conditional use permit process embodied in the zoning regulations of the Chula Vista Municipal Code.

#### F. Residential Planning

1. The residential density of El Rancho del Rey should be limited by the topography and natural constraints of the subject territory, as well as the general plan parameters of the Telegraph Canyon Community, and those adopted for adjacent territories. Notwithstanding these factors, the unit yield and densification of El Rancho del Rey must be sufficiently high to economically justify the development of the required streets, the construction of the requisite water and sewer lines, the preparation of the land for development, and the investment of development capital by the free market.

2. The gross residential densities indicated on the plan diagram of the General Development Plan are partially designed to provide property owners and developers a reasonable return on their investments even though portions of their lands are devoted to open space. Developers should regard the top of each density range indicated on the plan diagram as the maximum overall density to be allowed within a given area. The Planning Commission and City Council are under no obligation to approve plans at the top step of any density range, but rather shall consider the following factors in arriving at an appropriate density for a particular project:

- a. The location of the property with regard to existing or prospective developments.
- b. The impact of the project on traffic circulation and schools.
- c. The topographic character of the property and other development constraints, including earthquake faults and the presence of endangered species.
- d. The degree to which amenities and unique features are incorporated into the project.

3. Within a given area, the Planning Commission and City Council may authorize development of a project at a density higher than the maximum overall density. Prior to such authorization, however, the applicant shall demonstrate by the preparation of preliminary plans for subsequent phases that the overall maximum density will not be exceeded. At the time of approval of a higher density project, the preliminary plan shall be adopted as a refinement of the El Rancho del Rey General Development Plan. (See also the discussion of Sectional Planning Areas on page 9).

4. In order to prevent the excessive restructuring of land, especially on the periphery of canyons and along steep streets, unconventional housing types, such as split-pad and pole houses, should be encouraged.

5. Medium high density residential development within El Rancho del Rey should be based upon the "garden apartment" concept, and should be characterized by extensive internal and peripheral open space.

6. The land use plan of El Rancho del Rey should, where feasible, utilize the cluster, townhouse, patio home and zero lot line concepts in an effort to provide usable open space. These concepts, if adroitly planned, could also promote energy and water conservation, and lessen the requirement for streets. They also could provide an opportunity for the development of much needed affordable housing.

7. The urban design and townscape planning of all multiple-family developments within the El Rancho del Rey Planned Community shall be governed by the Design Manual of the City of Chula Vista. For the purposes of this statement of policy, condominium projects, community apartments, garden apartments, and all other projects under which three or more dwelling units are constructed on a single parcel of land, shall constitute multiple-family developments.

8. It is the express policy of the City of Chula Vista to require, in the El Rancho del Rey area, fine grained mixtures of housing types. As a general rule any development proposal involving more than 50 acres, or 250 dwelling units, should include at least two housing types. In large proposals, in appropriate areas, three or more housing types may be required. The City will not approve attempts to evade this requirement via a series of 49 acre or 249 dwelling unit subdivisions. The following shall be considered as different housing types for the purposes of this policy.

- a. Single family homes on "typical" lots
- b. Apartments
- c. Duplexes
- d. Townhouses
- e. Postage-stamp single family condominiums
- f. Single family detached homes on lots containing 4,000 square feet or less
- g. Patio homes
- h. Zero lot line homes

#### G. Commercial Planning

1. The General Development Plan provides adequate areas for local, community, and regional shopping facilities and services. The plan has purposefully utilized natural and planned open space in a manner which will reduce commercial-residential friction and, through the employment of green interstices or buffers, has limited the impact of commercial activity and traffic upon residential enjoyment.

2. The proposed amendments include the proposal that El Rancho del Rey's principal shopping precinct be located on the easterly side of I-805 and on the southerly side of the East H Street artery (proposed). The said precinct, which would occupy approximately 32 net acres, could accommodate a regional shopping center with not more than 300,000 square feet of gross leasable area. However, because this center could promote the decline of the existing Chula Vista shopping center, full exploration of the possibility of fulfilling the city's need for additional regional shopping facilities through the expansion of the Chula Vista/Sears shopping complex should be undertaken before final approval is given to this center at I-805 and H Street. If the said expansion reaches fruition, the 32 $\frac{1}{2}$  acres on East H Street could be devoted to a town and country (community level) shopping center, visitor commercial uses, recreational commercial uses, or a combination thereof. A part of this territory could also be devoted to a planned automotive sales and service park. These principles are partially based upon the Sedway/Cooke suggestions for the development of the Rice Canyon area.

3. Whether the subject precinct is ultimately developed as a regional, community, or other type of commercial center, onsite ancillary residential development should be encouraged and authorized at a maximum density of 18 dwelling units per gross acre. The preplanned mixture of multiple-family dwellings and mercantile uses at East H Street and I-805 could create a well ordered and pleasant living-working environment. However, the exact number of dwelling units to be permitted in this area shall be determined by the Planning Commission and City Council at the time of review of development plans.

## H. Sectional Planning Areas

1. The subcommunities or Sectional Planning Areas (SPA) indicated on the plan diagram have been formulated in accordance with the purpose and intent of Section 19.48.050 of the Chula Vista Municipal Code and provide El Rancho del Rey with a high level of internal unity and order.

2. The SPA's are partially designed to promote density flexibility and residential diversity. For example, an individual SPA might have, according to the plan diagram, an area with a specified, overall density range of 3 to 5 dwelling units per acre. Within this area, however, a higher density than 5 dwelling units to the acre may be allowed for a certain subarea or microneighborhood, provided that a lower density is developed elsewhere so that the overall density of the subject area would not exceed 5 dwelling units to the acre. Careful, preplanned attention must be given to such higher density microneighborhoods (see paragraphs F 2 and 3 on page 7) to insure their compatibility with lower density developments on their periphery.

3. The density flexibility discussed in the above paragraph should encourage a diversity in housing types. The microneighborhoods which are developed at a density which is substantially higher than their authorized overall density will probably accommodate condominium, townhouse, patio home, common green, or garden apartment projects. Furthermore, this diversity could alter the magnitude of required grading and reduce developmental costs.

4. While the plan permits the application of preannounced density standards in a flexible manner, it does not sanction the inter-SPA transfer of developmental rights. The maximum, above-range densities of the SPA plan are, furthermore, not transferable between different subareas in a given SPA, unless such subareas are governed by the same overall density classification, or the applicant provides ample evidence that the proposed transfer would substantially improve the spatial or functional relationships of the involved SPA, or would materially increase the quality of the land use, circulation, or conservation pattern thereof. In other words, the total number of units to be allowed within a SPA is fixed. However, the distribution of those units within a SPA may be altered somewhat by the transfer of some units from one portion of a SPA to another portion even though the portions do not carry the same density designation.

5. Although the boundaries of the SPA's are designated on the plan diagram, and the maximum permitted densities of the SPA plan are indicated for each density classification in the said diagram's legend, it should not be construed that the SPA plan is automatically operational. Before any portion of an SPA will be approved for development at a density which is higher than the top of the involved range, a preliminary plan for the entire involved SPA must be reviewed by the City Planning Commission, and approved by the City Council. Upon approval of Council, the preliminary plan shall be adopted as a refinement to the General Development Plan of El Rancho del Rey.

6. The Sectional Planning Areas could be used for any purpose which requires the subdivision of the vast territory of El Rancho del Rey into well-ordered and structured subcommunities. For example, the SPA plan could be utilized as the basis for the systematic creation of open space maintenance districts.

## I. Table of Translation

The following Table of Translation embodies a tabular analysis of the land use, residential density, and population proposed for El Rancho del Rey by the text and diagram of the General Development Plan. The table clearly reflects the plan's dual emphases upon conservation and development.

"Table of Translation"

LAND USE				NO. OF DWELLING UNITS	
<u>HOUSING CATEGORIES</u>	<u>DWELLING UNITS PER GROSS ACRE</u>	<u>DWELLING TYPES</u>	<u>ACRES</u>		<u>POPULATION</u>
Very Low	1 - 2	Residential Estates Single family detached	469	938	3,170
Low	2 - 3	Single family detached	234	702	2,373
Medium/Low	3 - 5	Single family detached Single family attached Cluster housing Townhouses	377	1,885	5,052
Medium	6 - 10	Single family detached Single family attached Cluster housing Townhouses Garden apartments	181	1,810	4,851
Medium/High	11 - 18	Townhouses Garden apartments Low rise apartments	27	486	943
Sub Total			1,288	5,821	16,389
COMMERCIAL					
		Retail	53		
		Recreation	10		
FIRE STATION			1		
SCHOOLS					
		Elementary	50		
		Junior High	60		
		Senior High	50		
PARKS					
		Neighborhood	25		
		Community	16		
NATURAL OPEN SPACE			801		
TOTAL			2,354	5,821	16,389

#### J. Cost Distribution

The costs of certain public facilities required to serve the El Rancho del Rey area shall be distributed by means of a reimbursement plan or plans prepared by the City. The plan shall equitably spread costs among all who benefit by the construction including, as appropriate, the general public of the City. All developments in the area shall be subject to the fees and conditions as established by the City Council through adoption of the reimbursement plan or plans.

#### IV. CONCLUSION

The foregoing text and the accompanying plan diagram constitute a policy bridge between the Chula Vista General Plan and the forthcoming project plans for the development of El Rancho del Rey. The said text and diagram are readily amendable, and therefore should be able to guide the growth and development of the subject area over a protracted period of time. Since the 2,350 acres of El Rancho del Rey will require several years of development, and changes within the free market and public preferences must be anticipated during the course thereof, the policies and principles of the plan have been couched in flexible terms. This flexibility, however, has not diminished the General Development Plan's fidelity to the Chula Vista General Plan and its constituent elements.

Pages 81 and 82 deleted

4.2 See Land Use Plan attached to this final EIR.

## 5.0 ENVIRONMENTAL IMPACT ANALYSIS

### 5.1 Geology

#### 5.1.1 Impact

The project site is generally geologically suitable for development provided several specific recommendations are considered and incorporated into the design of individual project elements. These recommendations and considerations are discussed as measures to mitigate adverse impacts in Section 5.1.2.

With regard to favorable geologic conditions, an evaluation of recognized geologic hazards in the project area indicates that the subject property is not susceptible to tsunamis, seiches, areal land subsidence or volcanic activity. No unique geologic resources were noted or are reported to exist on the property. Unfavorable geologic conditions at the site are associated primarily with potential seismic impacts, as discussed below.

Ground Shaking. The approximate magnitude of seismic ground shaking which can be expected to affect the El Rancho del Rey site is shown on Table 3-1 in the preceding section. This ground shaking is for the "maximum probable" earthquake on faults most pertinent to the subject property. The maximum probable earthquake on a known active fault is generally used for the design of most one and two story residential and light commercial or industrial structures.

Maximum lateral bedrock accelerations of about 0.08 to 0.1g can be expected at the site due to the estimated

maximum probable earthquake on known active faults of regional significance. The estimated recurrence interval for this ground shaking is on the order of 40 to 100 years, or within the life of the proposed structures. Bedrock accelerations of 0.08 to 0.1g can be related to ground shaking of VI to VII on the Modified Mercalli Intensity scale. The effects of Modified Mercalli Intensity VI to VII are summarized on Table 3-2.

The potentially active La Nacion fault system which passes through the project site (see Fig. 3-1 ), is potentially capable of producing significantly greater ground shaking. Bedrock accelerations of 0.5 to 0.6g, and Modified Mercalli Intensities of VII to IX, are considered reasonable for the La Nacion system. It should be noted, however, that the La Nacion fault system is 1) considered potentially active, not active; and 2) possesses an estimated recurrence interval of 300 years for its maximum probable earthquake.

Ground Rupture. As shown on Fig. 3-1 , several traces of the La Nacion fault system pass through the subject property. Any structure constructed astride a potentially active fault trace risks damage resulting from ground rupture due to displacement (either rapid or slow) along the fault, or differential settlement of the foundation due to unequal compaction in different geologic formations juxtaposed by earlier fault movement. For these reasons, earlier geologic investigations of the fault system (1972) resulted in the recommendation that "good engineering practice dictates that for subdivision

planning, permanent structures not be built within the limits of an active fault zone." The fault zone was then defined as a band approximately 250 feet wide bounding the fault trace.

Two significant advances in the study of the La Nacion fault system have been made subsequent to 1972. They include: 1) mapping of a number of additional fault traces on the property; and 2) indications that the fault system should not, by accepted criteria, be considered active, but potentially active. Thus, because the fault may not be active, a re-evaluation of the 250 foot fault zone width may, depending on the recommendation of geologists on specific sites, merit reconsideration. Conversely, however, further evaluation of the additional fault traces, and the possible establishment of additional fault zones wherein permanent structures would be prohibited, appears to be necessary.

Soil Failure. A potential for seismically induced landsliding must be recognized where any marginally stable natural slopes exist on the site. Such slopes may exist where the canyon walls have been erosionally oversteepened by running water or where grading for development entails excavation at the foot of a natural slope or filling at the crest.

#### 5.1.2 Mitigation

Although it is not yet possible to predict precisely when, where and how large the next earthquake will be, a study of regional seismicity indicates that the El Rancho del Rey property is likely to be subjected to at

least one earthquake during the life of the proposed project. It seems improbable that the state of the art with respect to earthquake prevention will have advanced to the stage where the control of earthquakes is possible within the next several decades. Thus, measures to minimize most of the seismic related impacts must be incorporated into the design and construction of structures and support facilities in the proposed project. (See plan principal D.7.)

Ground Shaking. All structures on the project site should be designed and constructed with a consideration of the seismic shaking parameters presented in Table 3-1 . The performance during historic earthquakes of well-designed and constructed one or two story residential structures and light commercial or industrial structures that are founded on bedrock or are underlain by relatively thin deposits of well-consolidated alluvium or terrace deposits has generally proven to be satisfactory.

Compliance with modern building code provisions can generally be expected to minimize structural damage and help to prevent destruction due to anticipated earthquake shaking.

For medium rise structures, and for all critical use or high cost facilities, a "seismic response spectrum" should be developed for the specific site under consideration. The general seismic parameters presented in this report can be used as a basis for the refinement of more specific

building sites.

Ground Rupture. In order to mitigate structural damage due to potential ground rupture, structures should be set back at least 100 feet from known active faults and at least 50 feet from potentially active faults. The previously discussed inferred fault traces should be considered for trenching to determine: 1) whether or not they actually exist; 2) if they are found to exist, their recency of activity; and 3) their potential for ground rupture.

Soil Failure. As specific development plans evolve, it is recommended that detailed soil engineering studies be completed to delineate any areas subject to seismically-induced landsliding.

#### 5.1.3 Analysis of Significance

As discussed in the preceding subsections, proper planning, design and construction can, for the most part, alleviate the potential for seismic damage. As in virtually all portions of Southern California, the El Rancho del Rey property is subject to seismic impacts. In spite of the site's location astride the La Nacion fault system, economically viable engineering subdivision design and construction techniques are available to reduce seismic risk to an acceptable level.

## 5.2 Soils

### 5.2.1 Impact

Preliminary soil investigations indicate that areas of adverse soils exist on the subject property. These adverse soils include loose, compressible alluvial materials in canyon bottoms and highly expansive soils in areas underlain by the Otay Formation. Additionally, landscaping could remove water content from expansive soils and cause contraction of the materials. This could affect foundations and structures.

It is possible that the detailed soil investigations for individual development phases will identify minor groundwater seeps in places along the canyon walls. Should artificial fill or structures be placed on such areas, subsequent seepage could present problems.

### 5.2.2 Mitigation

In order to avoid impacts resulting from construction on adverse soils, detailed soil investigations should be completed to delineate areas where such soils exist. The soil investigation report should establish foundation design criteria to be incorporated into individual development phase grading plans and structural foundation elements. Should extensive areas of adverse soils which are not economically amenable to mitigation be found on the site, such areas should be maintained in a low intensity land use such as open park areas or open space.

Any fills placed in areas where groundwater rises to the surface as a seep should be provided with sub-drains to prevent the buildup of hydrostatic pressure beneath the fill.

#### 5.2.3 Analysis of Significance

It appears unlikely that any unavoidable adverse soils impact will result from development of the subject property. The detailed delineation of areas affected by adverse soils and the property design and construction of structural foundation elements should be effective in preventing soil problems.

Given the identification of potential seepage areas and proper design of sub-drains where necessary, no significant groundwater-related impacts should result from development of the subject site.

### 5.3 Land Form Change

#### 5.3.1 Impact

The principal land form-related environmental impact will be associated with the grading that will be necessary to prepare the site for construction at the proposed intensity of use. While no earthwork volumes have yet been calculated, it is anticipated that a significant amount of grading will be necessary to create safe, viable building pads, roads and drainage facilities. Thus, while no quantitative evaluation of grading impacts is currently possible, a qualitative assessment can be made as shown below:

\* Grading will result in a significant and irreversible modification of the existing land form. Because of the relatively soft to moderately well indurated nature of on-site soils, no excavation or rippability difficulties are foreseen.

\* The land form change will be most substantial in the western & central portion of the project area. This grading is the result of the following elements of the proposed plan: 1) the extension of East "H" St. to link the eastern portion of the project and Chula Vista to I-805, 2) the creation of large flat pads for the commercial area south of East "H" St. and east of I-805, and 3) the higher intensity mixed density residential village north of East "H" St., east of I-805.

\* The grading in this western area will likely involve the filling of the floor of Rice Canyon, the lowering of many ridges and hilltops and the filling of adjacent tributary canyons.

\* In the remainder of the project area the major east-west canyons are largely proposed for preservation while the ridgelines would be lowered and the north-south trending tributary canyons would be filled.

\* Grading will result in temporarily exposed ground surface, free of vegetation, with a resulting potential for erosion and siltation due to surface runoff. If uncontrolled, such erosion could produce increased amounts of sediment to be transported through local drainages to Telegraph Canyon Creek, Rice Canyon and the Sweetwater River.

\*Care will have to be taken to avoid the City of San Diego pipeline running through the western portion of the project site. Potential problems related to grading may exist in that deep fills are not possible (current cover varies from one to three feet) and access must be maintained.

Although no landslides were noted or have been reported in the project area, some of the steeper natural slopes may be only marginally stable. Artificial slopes for the project must be evaluated following field and laboratory testing of on-site soils. Such testing by a certified engineering/geology firm will indicate the maximum slope heights and slope ratios that will provide a reasonable margin of safety against failure. Given standard,

engineering and construction practices, no difficulties are foreseen in designing and creating safe cut slopes and fill embankments.

#### 5.3.2 Mitigation

Measures to mitigate the short-term erosion and resulting siltation potential focus on either prevention of

sediment removal from exposed surfaces, or trapping sediment that has been removed. Reduction of sediment removal can be accomplished by the immediate stabilization of exposed surfaces with grass or ground cover plants, or by limiting grading to the late spring, summer or early fall months when heavy rainfall is unlikely. The use of siltation basins or other temporary drainage control measures may be necessary to prevent the removal of sediment from the grading site.

Grading of the project site should be undertaken in controlled phases whereby adequate replanting of exposed slopes and erosion control measures can be implemented on an on-going and progressive basis until the development portions of the site are completely graded and stabilized.

To avoid either natural or artificial slope stability problems, detailed soils investigations should be completed for each development phase. Artificial slopes shown on the final grading plan should incorporate slope design criteria recommended by the soil engineer and must follow the regulations specified in the Chula Vista Municipal Code.

All large manufactured slopes with high public visibility should be graded to create a natural appearance. In this regard the Hillside Development Policy and Design Criteria of hillside development should be followed. These design techniques include: 1) minimizing the frequency of manufactured slopes greater than 30 ft. in height, 2) contour grading using variable slope ratios not to exceed 2:1 in steepness and 3) landscaping which focuses on

drought resistant material. (See plan principal D.4.)

The use of split or multi-level structures is encouraged to limit the height and exposure of man-made slopes. These structures incorporate changes in grade into the buildings. Also the clustering of development in the more topographically suited areas and the retention of the natural steep slopes would reduce the amount of land form change necessary to develop the project site. (See plan policy C-9 and plan principal D-9)

### 5.3.3 Analysis of Significance

Alteration of the existing land form by the grading process will constitute one of the more significant impacts of developing the subject property. Grading will impact not only the land form but also drainage patterns, floral and faunal resources and existing aesthetic amenities. For this reason, every effort should be made to limit the amount of grading in areas found to be environmentally or aesthetically sensitive. This land form change will, nevertheless, be a significant impact on the natural environment.

## 5.4 Drainage

### 5.4.1 Impact

Because of the limited catchment areas and the narrow, steep canyons characterizing much of the subject property, the potential for on-site flooding is considered to be low. Two exceptions, however, are the Telegraph Canyon Basin, which drains a relatively larger area, and at the mouth of Rice Canyon, where several sub-basins converge.

In the event of a large storm, the wide, flat areas in the western area of Rice Canyon and along Telegraph Canyon Rd. are particularly susceptible to flooding.

The provision of paved and roofed surfaces on the subject property will lead to increased peak runoff volumes and a concomitant increased potential for both on-site and downstream flooding. The projected runoff with full development of the major drainage basins and the net increases are as follows:

		Full Development	Increase
Rice Canyon Basin	@ Bonita Rd.	2243 cfs	534 cfs
Telegraph Canyon Basin	@ Otay Lakes Rd.	1661 cfs	557 cfs
	@ I-805	2980 cfs	1473 cfs
Otay Lakes Rd. Basin	A Bonita Rd.	747 cfs	142 cfs

#### 5.4.2 Mitigation

To alleviate the potential for flooding impacts along the Telegraph Canyon Rd. channel, the City has adopted a cross section and alignment for channelization of runoff in this basin. This facility will consist of a grass lined, heavily landscaped, manufactured swale, eastward from a point westerly of where the SDG&E transmission line easement crosses the channel. West of the grass lined channel, the flow will be carried in a concrete lined trapazoidal channel. These facilities are designed to carry the ultimate runoff noted above.

No detailed design studies have been conducted on facilities for the other drainage basins. However, standard subdivision and water course permit process will insure the provision of adequate facilities to accommodate the ultimate runoff from the project.

A previously prepared storm drain Master Plan (1970) may serve as a guide for implementation of future development parcels. This storm drain design plan is based upon ultimate conditions of development as stipulated in the City General Plan. Recommended facilities are proposed in accordance with maximum predicted rainfall intensities, predicted street location, grading activities, soil conditions and slope and may therefore require appropriate up date.

Downstream from the on-site Rice Canyon Basin, the California Dept. of Transportation has constructed various drainage improvements which carry the 50 year runoff to the Sweetwater River flood plain.

#### 5.4.3 Analysis of Significance

As discussed in the preceding subsections, proper planning and implementation of master plans for main drainage arteries would alleviate the potential for flooding, particularly in Rice Canyon and along Telegraph Canyon Rd. Without such, significant drainage and storm runoff impacts may result upon project completion.

## 5.5 Water Quality

### 5.5.1 Impact

Water quality effects of three types can be associated with development of the subject property: siltation, urban runoff and liquid waste disposal. Siltation can result from the erosion of exposed ground surfaces during the grading phase of the project. This impact and measures to mitigate it are discussed in the previous subsection.

Urban runoff consists of storm runoff contaminated by such urban pollutants as hydrocarbons, rubber, metal and dust particles from streets and parking areas, fertilizer and pesticides from landscaped areas, pet wastes, and several others. As development of the subject property proceeds, and urban utilization of the project area intensifies, a concomitant increase in the level of urban runoff will result. Of particular interest is runoff from streets and parking areas. Materials in this drainage have been found to contribute substantially to urban pollution. The Environmental Protection Agency has found that this runoff is similar in many respects to sewage flows. In the first of a moderately heavy storm, more pollution is washed from these parking and travel areas than a sewer line carries in a similar period. However, because the watersheds below the subject property are already largely urbanized, the increased level of urban runoff from the fully developed site will represent a relatively insignificant contribution.

Liquid waste disposal is largely carried through Chula Vista's Sanitary Sewer utility system and the Metropolitan Sewer System to the Metropolitan Treatment Plant on Point Loma. This treatment facility is approaching its design capacity. The City of San Diego has plans to upgrade the treatment capacity; however, this additional capacity won't be available for several years. Therefore continued urban growth, of which this project is a part, will increase sewage flow to the system and cause a worsening of the treatment facility problem and a lowering of water quality in the discharge area.

#### 5.5.2 Mitigation

Treatment of urban runoff to reduce urban pollutants is costly and frequently ineffective. A more realistic approach toward mitigating this problem is to adopt a rigid program of clean-up techniques. The pollution due to street surface contaminants, for instance, can be significantly reduced by proper street cleaning operations.

The amount of liquid waste generated by the project could be reduced through the recovery of graywater (from sinks, showers, tubs, washers, etc.) and its use after treatment for irrigation of parks, slope landscaping, etc.

#### 5.5.3 Analysis of Significance

As mentioned, urban runoff from the fully

developed site would represent a relatively insignificant contribution to existing levels. It must be recognized, however, that any level of urban runoff represents an incremental addition to a water quality problem of regional significance, particularly when such runoff is eventually carried to an ecologically unique area such as the salt water marshes along the southwesterly edge of San Diego Bay. In this regard, it is anticipated that only a regional effort, involving local, State and possibly Federal agencies, will provide a workable solution.

The project will contribute to the cumulatively significant impact on the ability of the Metropolitan treatment facility to adequately treat sewage discharge. Plans for facilities to increase capacity and the quality of discharge are being processed at this time and will provide a long term solution to the problem.

## 5.6 Climate

### 5.6.1 Impact

Although it is probable that the proposed project would influence micrometeorological conditions on and around the project site, these alterations seem to be quite minor. They include changes in cold air drainage patterns, the creation of heat islands and, at worst, formation of minor, local and short-lived cold air inversions, that would trap locally produced air pollutants in the morning hours. These impacts would follow any land-form alteration.

### 5.6.2 Mitigation

Alteration of cold air drainage patterns can only be prevented by retention of the current land form, requiring preservation of the subject property in its current use.

### 5.6.3 Analysis of Significance

Alterations in the micrometeorological conditions in and around the project site will be relatively minor and will not result in any substantial climate modification.

## 5.7 Air Quality

### 5.7.1 Impact

The quality of local and regional air cells will be incrementally (cumulatively) degraded as a result of the proposed project. The sources which will contribute to this include construction activity; vehicular traffic; the use of fire places; the consumption of energy (electricity and natural gas) and the modification of on-site photosynthetic patterns.

The predominant localized impact on air quality of the project will be introduction of dust and particulate matter from the construction process. Grading activity, which will generate dust and fumes during road construction and the preparation of building sites, will be a major contributor. Additionally, the movement of construction vehicles over dirt roads and construction sites, as well as temporarily exposed graded areas will create a further source of dust, albeit of a short-term nature.

Regional air quality will be affected primarily through motor vehicle emissions. The following data has served as a background for air quality emission estimates:

\*Total number of trip ends (any vehicle movement from one point to another) per day: 94,454

\*The length of each trip was assumed to be as follows:

Residential	-	6 mi.
Retail Comm.	-	5 mi.
Recreational Comm.		5 mi.
Neighborhood Comm.		2 mi.
Schools	-	6 mi.

\*Because no development schedule is available the buildout and completion dates are not known. The

following assumptions are made:

- The commercial development and 1/3 of the residential land uses will be completed by 1980.
- 2/3 of the project will be complete by 1985.
- The project will be completed by 1990.
- It is assumed that 38% of the electrical power supplied by SDG&E will be produced by fossil fuels assuming continued use of low sulfur fossil fuels.

Based on these assumptions, Table 5-1 delineates the pollution emitted from mobile sources associated with the project.

Table 5-1

Pollution Emission from Mobile Sources/Yr. (Cumulative)

<u>Pollutant</u>	<u>1980</u>	Tons <u>1985</u>	<u>1990</u>
Carbon Monoxide	5.87	7.0	6.27
RHC	0.765	.88	.88
NO <sub>x</sub>	1.28	.78	.94
Particulates	0.15	.23	.30
SO <sub>2</sub>	0.05	.08	.11

Based on the same assumptions, Table 5-1 delineates the pollution emitted from stationary sources associated with the project.

Table 5-2

Pollution Emissions from Stationary Sources/Yr. (Cumulative)

<u>Pollutant</u>	Tons		
	<u>1980</u>	<u>1985</u>	<u>1990</u>
Carbon Monoxide	2.58	4.30	6.02
RHC	1.04	1.74	2.44
NO <sub>x</sub>	0.28	0.36	0.42
Particulates	0.62	0.13	0.14
SO <sub>2</sub>	0.15	0.25	0.03

The following comparison shows the relationship of all pollutant emissions from the project to the total of 1972 emissions for sources within the City of Chula Vista and the San Diego Air Basin as a whole. As can be seen, the project represents an additional source of pollutants and will contribute to the cumulative adverse effect on air quality in the basin.

Table 5-3

<u>Pollutant</u>	<u>Total Air Basin</u>		
	<u>1980</u>	<u>1985</u>	<u>1990</u>
Carbon Monoxide	0.66%	.89%	.97%
RHC	0.63	.91	1.15
NO <sub>x</sub>	0.76	.44	.54
Particulates	0.79	.37	.45
SO <sub>2</sub>	0.55	.90	.38

Table 5-4

<u>Pollutant</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
Carbon Monoxide	13.40 %	17.92 %	19.49 %
RHC	12.61	18.31	23.20
NO <sub>x</sub>	12.64	8.65	11.02
Particulates	15.91	7.44	9.09
SO <sub>2</sub>	11.05	18.23	9.74

#### 5.7.2 Mitigation Measures

The following measures would serve to reduce the extent of air quality degradation due to implementation of the proposed project.

- \*Modes of transportation other than the automobile (horses, bicycles, etc.) should be encouraged and their availability given wide publicity. Provision

of adequate pedestrian and bicycle routes within El Rancho del Rey linking residential areas with key support or commercial areas, thus minimizing the reliance on the automobile. (Current plans call for the provision of bicycle and equestrian trail systems within the project site linking areas of high-use, see the Chula Vista General Plan.)

-\*Residents should be encouraged to organize and utilize carpools, and if interest warrants, a suitable system of implementation should be set-up.

\*Extension of existing public transit routes to serve the subject property.

-\*Residents should be informed as to methods of reducing gas and electrical consumption. This can be accomplished through distribution of pamphlets discussing the efficient use of home energy supplies; such information is available from appropriate utility companies.

-\*Dust control measures such as watering, grading surfaces, using sheepsfoot tampers, planting groundcover, etc., can effectively modify the scope and magnitude of adverse air quality impacts associated with the construction process.

### 5.7.3 Analysis of Significance

Full development of El Rancho del Rey Revised General Development Plan would constitute an incremental contribution to the degradation of the regional air cell.

As is shown on Fig. 3-3, (pg. 25) this and other inland areas are the recipients of air pollutants from more westerly locations due to the prevailing winds. Among these pollutants are ozone and non-methane hydrocarbons.

Development of a project to provide similar dwelling and service facilities at a different location would probably have similar air quality impacts depending on the location.

## 5.8 Noise

### 5.8.1 Impact

As the project site urbanizes, there will be a general increase in background noise level to that of a suburban community.

Periodically during the development phase of each parcel of the El Rancho del Rey project, construction noise will result. Noise levels which can be anticipated in conjunction with the grading and construction process are presented in Table 5-5. Levels are given in energy average (Leq) dB(A) present at the construction site. For purposes of estimation, the noisiest piece of equipment is assumed to be 50 feet away and all other equipment is assumed to be 200 feet away.

The construction function is predominantly a daytime activity and no associated noise impacts are expected outside normal working hours. Temporary annoyance due to construction activity may impact residential areas to the east and north of the site.

Inasmuch as final stages of development will proceed after the first homes have been sold and occupied, noise levels will represent an on-going intrusion upon residents of the existing site until such time as build-out is completed. This fact should be made clearly known to prospective buyers.

Table 5-5

Noise Produced at the Construction Site

<u>Activity</u>	<u>I</u>		<u>II</u>	
	<u>All Pertinent Equipment at the Site</u>		<u>Minimum Required Equipment Present at the Site</u>	
	<u>Average</u>	<u>Standard Deviation</u>	<u>Average</u>	<u>Standard Deviation</u>
Ground Clearing	83	8	83	8
Excavation	88	8	75	14
Foundations	81	10	81	17
Erection	81	10	65	9
Finishing	88	7	72	12

Aircraft and helicopter flyovers emanating primarily from Brown Field will occur frequently over the project site. However, El Rancho del Rey lies well beyond the calculated 65 CNEL Noise Contour; thus, project residents will not be exposed to harmful sound exposure levels as a result of this noise source.

Noise emanating from the transmission lines running through the subject property, and their impact on the project area, will be affected by several complex factors: moisture, surface gradient, existence of dust, salt, or insects on the conductor, climatic effects (wind, temperature), number of conductors in a bundle, conductor size and phase separation. Previous studies indicate that audible noise associated with the operation of high voltage transmission lines falls within the Department of Housing and Urban Development (HUD) normally acceptable noise guidelines. Audible noise levels of 48-50 dB(A) will be experienced at the right-of-way property lines during a "worst case" noise condition (rain). Normally, the lines will radiate noise well below the 48-50 dB(A) range; however, even under worst case conditions, the noise levels associated with operation of the transmission lines will fall within the lower end of the HUD Normally Acceptable criteria.

The major long-term effect of the project on the acoustical environment will result from traffic on surface streets. Traffic generated by the proposed project (primarily residential in nature) will contribute to overall ambient noise levels both within the subject property and in adjacent areas.

The involved roadways not only include the major arterials but also interior residential collectors. Many of these smaller interior streets run in a north-south direction and would therefore be subject to grades in excess of 6 percent. This is due to their directional trend contrary to existing canyons and ridgelines. Such collectors would also likely contain stop signs where they intersect larger roadways. These factors tend to result in higher traffic noise generation, particularly in the event of multi-axle vehicle use (trucks, busses, etc).

A preliminary study of possible acoustical impact was undertaken based on the future traffic volumes contained in Section 5.19 of this report. This study was done in accordance with the precedure contained in "Estimation of Community Noise Exposure in Terms of Day-Night Average Level Noise Contours." (SWING, Office of Noise Control, State of California, 1975) The results of this study are presented in Table 5-5 and is keyed to locations on Figure 5-1.

#### 5.8.2 Mitigation

Regulations should be established to limit hours of operation permitted for construction activities. Such limitations should be directed toward maintaining privacy and relative tranquility during evening hours and on weekends. In addition, construction equipment should be equipped with the most effective muffling devices available.

Prospective buyers of residential areas should be notified of the subsequent development schedules.

To achieve desired interior noise levels, several design factors may also be necessary, including residential building insulation plus substantial setbacks, a landscaped berm or masonry wall along portions of the project site facing roadways with substantial traffic volumes. (See plan policy C-4)

When precise development plans are submitted for consideration, more detailed acoustical analysis, including line-of-sight studies, should be prepared. These measures may be necessary to meet California Noise Insulation standards.

#### 5.8.3 Analysis of Significance

The significance of resultant noise level generation is dependent upon the provision of noise attenuation measures discussed in the previous subsections. Such provision would serve to eliminate the potential for exposure to future project residents of "Normally Unacceptable" noise levels.

**PROJECTED 1990 Ldn**

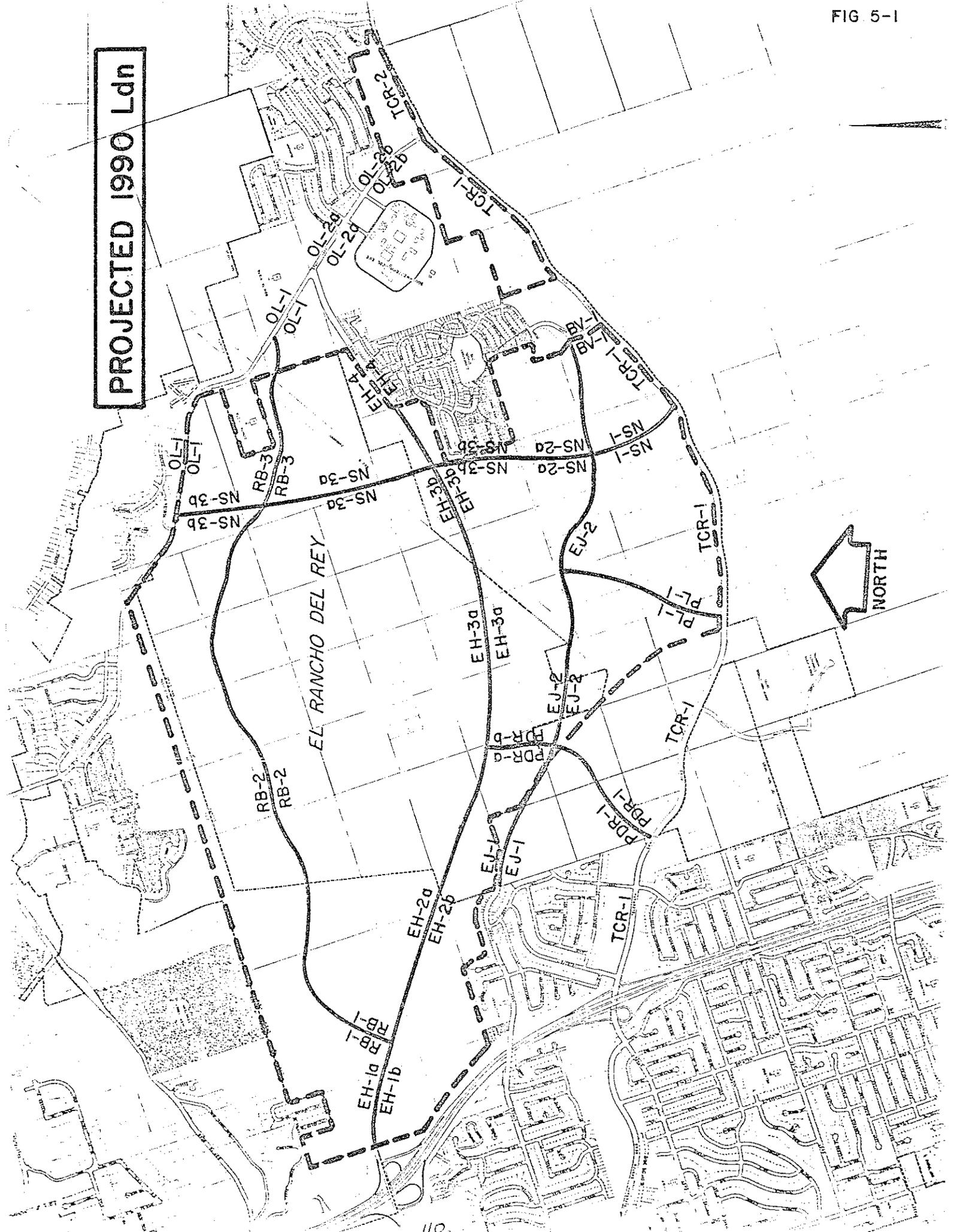


TABLE 5-6

<u>Station</u>	<u>Projected 1990 L<sub>dn</sub>/Range</u>	<u>dB reduction necessary to attain 45 dB* interior dwelling isolation</u>
	<u>L<sub>dn</sub>/Range</u>	
<u>Buena Vista Way</u>		
BV-1	61dB within 100' 50dB 100' or greater	(16dB) (5dB)
<u>East "H" St.</u>		
EH-1a	72-73dB at 50' 63-64dB 100' or greater	(27-28dB) (18-19dB)
EH-1b	72-73dB at 50' 69-70dB at 100'	(27-28dB) (24-25dB)
EH-2a	71-72dB at 50' 62-63dB at 100' or greater	(26-27dB) (17-18dB)
EH-2b	65-66dB within 100' 62-63-dB at 200'	(20-21dB) (17-18dB)
EH-3a	71-72dB at 50' 62-63dB 100' or greater	(26-27dB) (17-18dB)
EH-3b	71-72dB at 50' 68-69dB at 100'	(26-27dB) (23-24dB)
EH-4	70-71dB at 50' 67-68dB at 100'	(25-26dB) (22-23dB)
<u>East "J" St.</u>		
EJ-1	62dB within 100' 57dB 100' or greater	(17dB) (12dB)
EJ-2	62dB within 100' 57dB 100' or greater	(17dB) (12dB)
<u>North-South Collector</u>		
N-S-1	62dB within 100' 51dB 100' or greater	(17dB) (6dB)
N-S-2a	62dB within 100' 51dB 100' or greater	(17dB) (6dB)

TABLE 5-6 (Cont.)

<u>Station</u>	<u>L<sub>dn</sub>/Range</u>	<u>dB reduction necessary to attain 45dB interior dwelling isolation</u>
<u>North-South Collector (Cont.)</u>		
N-S-2b	62dB within 100' 57dB 100' or greater	(17dB) (12dB)
N-S-3a	62dB within 100' 51dB 100' or greater	(17dB) (6dB)
N-S-3b	62dB within 100' 57dB 100' or greater	(17dB) (12dB)
<u>Otay Lakes Rd.</u>		
OL-1	69dB at 50' 65dB at 100' 59dB 100' or greater	(24dB) (20dB) (14dB)
OL-2a	64dB within 100' 59dB 100' or greater	(19dB) (14dB)
OL-2b	64dB within 100' 53dB 100' or greater	(19dB) (8dB)
<u>Paseo del Rey</u>		
PDR-1	63dB within 100' 58dB 100' or greater	(18dB) (13dB)
PDR-2a	63dB within 100' 58dB 100' or greater	(18dB) (13dB)
PDR-2b	63dB within 100' 52dB 100' or greater	(18dB) (7dB)
<u>Paseo Ladera</u>		
PL-1	62dB within 100' 51dB 100' or greater	(17dB) (6dB)
<u>Ridgeback Rd.</u>		
RB-1	61dB within 100' 50dB 100' or greater	(16dB) (5dB)
RB-2	61dB within 100' 56dB 100' or greater	(16dB) (11dB)
RB-3	61dB within 100' 56dB 100' or greater	(16dB) (11dB)

TABLE 5-5 (Cont)

<u>Station</u>	<u>L<sub>dn</sub>/Range</u>	<u>dB reduction necessary to attain 45dB interior dwelling isolation</u>
<u>Telegraph Canyon Rd.</u>		
TCR-1	70dB at 50'	(25dB)
	67dB at 100'	(22dB)
	61dB 100' or greater	(16dB)
TCR-2	71dB within 100'	(26dB)
	58dB 100' or greater	(13dB)

## 5.9 Biology

### 5.9.1 Impact

This project site involves a unique biological niche representing a combination of species with a greater southern and northern affinity.

The property when considered as a whole, is relatively undisturbed and remains in its natural state. Current impacts in this area include off-road vehicles, man caused fire, litter, and domestic dogs and cats, which may interfere with natural predator-prey relationships and generally act as a disruptive influence to native wildlife populations. Off-road vehicle use of this site, principally by trail bikes, causes erosion problems, noise pollution, habitat destruction and wildlife disruption.

Future development will probably eliminate most of the on-site vegetation. While coastal sage scrub is the third most extensive vegetation cover in San Diego County, the particular derivative of coastal sage scrub found on the property is not nearly as common. The remaining acreages of this flora scrub derivative are largely in the path of eventual urbanization, and have been made even more accessible recently with the opening of I-805.

As the property is developed, it will encourage additional human activity and impact on adjacent undeveloped land. Trail bike activity should be restricted as excessive noise and activity will discourage nesting in the area while displacing wildlife sensitive to human activity.

Suburban development will result in the introduction and/or increase in domestic animals (i.e. dogs and cats) and there will be an increase of species adapted to the urban environment (i.e. house sparrows, pigeons, starlings, mourning doves, crows, hummingbirds, mockingbirds, house mice and house (Norway) rats). At the same time, the hunting territories of various raptors and mammals will be decreased.

As previously noted, there are three species of flora on-site which noted as rare and endangered by the Calif. Native Plant Society. These are the Coast barrel cactus, snake cholla and San Diego Ragweed.

These species are generally, but not totally, located within the areas designated as potentially significant on Fig. 3-5.

#### 5.9.2 Mitigation

Because the area is floristically interesting, a number of rare and endangered floral species exist on-site, and floral and faunal species considered to be of depleted or declining status are present, adequate mitigation of these resources is necessary. All or some of the areas designated in Figure 3-5 should be retained and incorporated where possible into natural park or open space areas. Alternatively, relocation efforts should be undertaken. (See plan policy C.4 and plan principal D.2 and D.3.)

Natural drainages and canyons should be retained to separate and buffer individual developments from one another. As final plans for the individual parcels are developed, organizations such as the California Native Plant Society

and the San Diego Cactus and Succulent Society should be contacted and given the opportunity to salvage any floral species which will be destroyed during the construction process.

Open spaces will provide aesthetic relief, erosion control and buffers for adjacent developments but in many cases, the area is not large enough to support representative wildlife communities. Larger predators are for the most part excluded. These areas do attract birds, however, and can bring an element of rural landscape and urban wildlife to a community. These areas can also be utilized effectively to retain stands of unique and sensitive floral species. Ideally, planned open space areas should be continuous as are proposed for the various legs of Rice Canyon.

In planning for urban wildlife, it is desired to retain or create continuous network of wildlife corridors. This network can double to a degree for riding and hiking and passive recreation for project residents. (See plan feature F.) It is noted that it is necessary to retain native shrubs and brush to support the desired wildlife. It may be desirable to supplement or add to the natural vegetation of certain areas especially along the canyon bottoms. If this is to be done, strong consideration should be given to the use of native vegetation.

Native trees would add dimension to wildlife habitat as opposed to total suburbanization, and be relatively maintenance free after the initial rooting period, in that they are adapted to the area's climatic regime. California Pepper tree although non-native, is also good for this purpose and is attractive to wildlife.

When it is not feasible to incorporate areas of rare and endangered species into open space areas, transplanting or reseeding into other appropriate open space areas will be necessary to avoid a substantial and adverse environmental impact.

### 5.9.3 Analysis of Significance

The area under consideration for development is for the most part undisturbed and contains interesting, if not unique, assemblage of plant species. The flora of the area contains at least three species considered rare and endangered, four species identified as rare (but not endangered), and another eight species are of limited distribution. The flora is well-developed in many areas of the site and particularly good vegetation stands and habitat are designated as biologically sensitive areas (see Fig. 3-5 ).

In addition to the floral elements, one resident reptile species is considered of depleted status, and two others are protected via possession limits by the California Fish and Game Dept. A number of Blue-Listed avifaunal species are known to utilize the site, and another bird, the cactus wren, is considered rare along the coast by local ornithologists. Nesting habitat for this latter species will hopefully be retained on-site as a part of the natural open space areas by the retention of large Cholla stands.

Areas of biological significance have been designated throughout the project. From a biological standpoint, the degree or measure of adverse impact on the

area due to development is closely tied to the preservation of these sensitive areas. These areas include representative habitat of the site which provide for the preservation of the aforementioned rare, depleted, or unique floral and faunal elements.

If implementation of the project results in large scale destruction of these natural areas, the project will result in a substantial and adverse impact on the environment. If through preservation and/or relocation, these habitats are preserved, a significant impact will be avoided.

## 5.10 Archaeology

### 5.10.1 Impact

The implementation of the El Rancho del Rey project will in no way impair, destroy or cause the loss of valuable archaeological resources if the following recommended procedures for mitigation are followed.

Lacking specific site plans for the El Rancho del Rey project, it is the underlying assumption of the report that virtually the entire project will impact archaeological resources either through direct or indirect use. Acting on that assumption, these suggestions and recommendations will serve as mitigating measures.

### 5.10.2 Mitigation

Each archaeological site possesses certain traits and attributes thus each site is evaluated and ranked according to the research potential, previous impairment of the site and the degree to which a given site will contribute

to the growing body of knowledge about prehistoric peoples in the area.

It would be expedient both in terms of time and cost to deal with the archaeological sites as a total unit rather than individually although such a comprehensive program is not absolutely necessary. If the sites were dealt with on an individual basis, the data could be synthesized at a later date by other researchers. Treating the sites as an archaeological unit would not only lessen the in-field time but could result in a comprehensive study of the area encompassed by the project and lend interpretative information to other regions.

Assuming that the entire project area will be either directly or indirectly impacted, the following mitigating measures and recommendations are suggested to ensure that the valuable and unique data contained in the sites will be preserved for future study and research. (See Fig. 3-6)

\*WS-76-1

It is suggested that the few artifacts present on this site be collected, analyzed, drawn and that a minor archaeological report be prepared and filed with local archaeological facilities. The implementation of such a surface collection and minor investigation will ensure what little data that is present at this site will be preserved.

\*WS-76-2

It is suggested that this site be subjected to a minor field investigation consisting

of a micromapping and surface collection of all cultural debris, an analysis of the recovered materials, at least one radiometric dating ( $C^{14}$ ) for the shellfish remains and the preparation of a complete site report. As previously stated, a thorough study of this site in combination with others in the area could provide a great deal of information about the settlement patterns of the native peoples of the area.

\*WS-76-3

The research potential for this site is dependent upon the degree of previous disruption and the lack or presence of any depth. Therefore, it is suggested that a series of postholes be excavated to investigate the possibility of midden depth. If the posthole testing indicates significant depth, further field investigation including a test of excavation may be deemed necessary. If there are no signs of midden depth, the following procedure is recommended:

A thorough micromapping of all artifacts should be conducted along with an analysis of the recovered materials and the preparation of a complete archaeological report which would describe the site, place the recovered data in a usable format and contain a synthesis of this site in the regional context.

\*WS-76-4

The recording of this site and the already conducted surface collection serves to mitigate

the potential loss of this site and ensure that the limited data available from it will not be lost, should this area be impacted in the future. No further research or field work is suggested for this site; the information gathered from this site will be on file for future researchers who may want to develop a more complete picture of the prehistory of the area.

\*WS-76-5

A minor investigation of this site could provide data on lithic tool manufacture, cultural preference for lithic types and settlement/land-use patterns. Such an investigation for this site would involve a micromapping of the area, a surface collection of the artifacts and an analysis of the recovered data within the body of a complete archaeological report.

5.10.3 Analysis of Significance

The completed field work described herein, will insure that all significant archaeological resources on or near the project have been identified and described. Although additional scattered artifacts and cultural debris may be present on the project, the significance of such scattered materials is deemed trivial and would not serve to further the knowledge of the prehistory of the area.

Failure to act upon these suggestions and recommendations for mitigating the loss or destruction of the significant archaeological sites would lead to the destruction of impairment of potentially valuable archaeological resources

and data. Since, by its very nature, archaeological data is non-renewable, such a loss or impairment could cause serious gaps in the prehistoric record of the Chula Vista/South San Diego County area and result in a substantial and adverse environmental impact.

#### 5.11 Paleontological Resources

##### 5.11.1 Impact

While a rather diverse Pliocene Molluscan fauna could be collected from the San Diego Formation on the site, these fossils are common and widespread throughout the San Diego coastal plain and are not considered paleontologically unique or unusual.

##### 5.11.2 Mitigation

In the event of discovery of unique or unusual paleontological resources in the course of subsequent survey or construction activities design alternatives may be required. Preservation through structural or roadway relocation or design of natural areas or parks may be necessary.

##### 5.11.3 Analysis of Significance

Though it is desirable, where practical to preserve fossil bearing rocks for future scientific and educational use, there currently appears to be nothing paleontologically significant in this area which would make preservation of these paleontological resources necessary.

#### 5.12 Historical Resources

##### 5.12.1 Impact

Given the dearth of on-site historical resources,

the impact of the proposed project from a historical perspective is negligible.

#### 5.12.2 Mitigation

This lack of historical resources precludes the necessity for discussion of mitigation measures.

#### 5.12.3 Analysis of Significance

As previously stated, there are no significant historical resources currently existing within the project boundaries.

### 5.13 Schools

#### 5.13.1 Impact

The project will likely result in the generation of about 2290 elementary school students, 1747 junior high students and 1166 senior high school students. There is currently no capacity available for new students in the secondary schools near the project and very limited capacity in the elementary schools, not nearly enough to provide adequate educational services for this project.

These numbers of students will result in the need for one senior high school, one to two junior high schools and about 5 elementary schools.

The elementary school district currently owns three sites within and adjacent to the project.

The elementary school district does not currently have funding for the construction of any new schools and no financing proposals are firm.

The secondary school district does not own any sites within the project area, but does own one junior high school site south of Telegraph Canyon Rd.

The Sweetwater Union High School District has indicated that there are no funds available for the purchase of any new facilities, and the district cannot, at this time, assure that adequate facilities would be available for students generated by the proposed project.

#### 5.13.2 Mitigation

Under adopted City policy relating to the availability of public facilities, the City Council requires letters from the school districts assuring that educational facilities and services are available prior to approval of any project. Developers, in the past, have entered into agreements with the school districts to provide financial assistance in providing temporary educational facilities.

Under a recent amendment to the State Subdivision Map Act (SB-201) a school district's governing board may make a finding under restrictive conditions, that overcrowding exists in an attendance area. When such a finding has been made the City may require subdividers to dedicate land and/or require a fee to acquire land and provide temporary facilities. These lands and/or fees would be transferred to the school districts to be used to meet the educational needs for the community. These processes have not yet been established on a local level and the conditions which are requisite to the process have not been established.

#### 5.13.3 Analysis of Significance

Adherence to the City's General Plan policy requiring

3) the floor of the middle leg of Rice Canyon previously designated as a wilderness park.

The primary area designated for conservation is the northern leg of Rice Canyon. The other open space areas will be disturbed to some degree by the grading for adjacent development.

#### 5.14.3 Analysis of Significance

The provision of recreational areas and parks along with the major natural canyon open space areas, preserved in accordance with the Open Space Element of the General Plan, will preclude any substantial and adverse environmental impact.

#### 5.15 Police

##### 5.15.1 Impact

As a result of the proposed development, added law enforcement burdens can be anticipated to be created. Direct contact with the City of Chula Vista, Police Department has indicated that these additional burdens will result in an incremental increase in the need for law enforcement in the area. In particular, the proposed development will create the potential for burglary and other crimes associated with residential and commercial areas.

While the City of Chula Vista does not anticipate that the project will place any undue burdens upon their law enforcement capabilities, it will result in increased manpower and equipment requirements. Using the general requirements of 1.1 officers per 1,000 population and an additional squad car for each four additional officers, 18 new officers and 4-5 additional squad cars will be required to serve the

project at ultimate completion.

#### 5.15.2 Mitigation

Site and building design should be conducted with an eye toward crime prevention. Several specific safety design measures include:

- \*The provision of "Defensible space" in areas of high use.
- \*Garages rather than carports.
- \*Proper lighting in open areas.
- \*Windows placed well away from doors.
- \*Deadbolt locks.

#### 5.15.3 Analysis of Significance

Demand for police protection will be increased as a result of the proposed development. The significance of such an increase is dependent upon the ability to respond to this demand for increased manpower and equipment without any substantial decrease in police protection.

## 5.16 Fire Protection

### 5.16.1 Impact

The primary impact of the proposed development will be an incremental increase in demand for fire protection services. The additional population generated by the proposed project will incrementally increase the amount of service necessary. It is currently expected that the property not incorporated will be annexed to the City of Chula Vista. As development takes place along Telegraph Canyon Rd., the response time from Stations # 2 & 4 will increase and it will be more difficult to provide an adequate level of service.

Additionally, as East "H" St. is extended easterly from I-805, reaction time to provide fire protection in the eastern portions of the project will be excessive until a new fire station is provided in the area.

Otherwise, the Chula Vista Fire Dept. does not anticipate any problems in serving the development areas of the project site, given the adherence to City standards regarding fire hydrants and street widths, which insure adequate turning radii.

The interface of the developed areas adjacent to undeveloped hillsides merits special attention, in terms of increased fire potential caused by people-related activities (accidental housing fires, construction equipment, children playing, hiking, etc.) that a residential development brings. The impact of a canyon fire includes removal of vegetation and baring of highly visible hillsides and increased erosion of soil and nutrients. The Chula Vista Fire Dept. possesses

limited off-road fire fighting capabilities, thus magnifying access problems in the event of such a fire.

#### 5.16.2 Mitigation

The following measures would not only serve to ease burdens upon fire fighting authorities in the event of a fire episode but will also reduce the chance for its occurrence:

\*An additional fire station within the area of the proposed project, the specific location is at the southwest corner of Paseo del Rey and East "H" St. This new station will also require the provision of additional manpower and equipment.

\*Prior to the provision of the above facility, it will be necessary to provide temporary stations at various locations within the project. The developers of the project should be responsible for providing the sites and temporary stations, while the City will provide equipment and manpower. The City can provide this service with existing equipment but will require additional personnel.

\*Provision of fire hydrants which conform to City Standards.

\*Interior street widths which will accommodate fire fighting vehicles.

\*Each development parcel should have two means of ingress and egress.

\*Building spacing should be large enough to prevent fire spreading due to radiative heat. In addition, fire retardant roof materials should be utilized.

\*Buffer areas of greenbelts containing fire retardant vegetation to line the perimeter of developed areas

and internal roadways. Such vegetation types should also be employed throughout the site. Such buffer areas should be regularly maintained (i.e. watered and dry litter removed.)

\*Strict prohibition of the use of off-road vehicles in undeveloped open space areas within and adjacent to developed areas. Such a measure not only reduces the chances of fire but would assist in retention of native biological species.

\*Compliance with the standards and objectives of the Safety Element of the Chula Vista General Plan.

#### 5.16.3 Analysis of Significance

The degree of significance of fire protection impacts is highly dependent upon the response of the City of Chula Vista regarding increased manpower and equipment requirements and the provision of the aforementioned temporary and permanent facilities. Substantial and adverse impacts can be avoided through these requirements.

### 5.17 Sewer

#### 5.17.1 Impact

Proportions of resultant sewage generation are based upon the following generation rates:

Residential: 100 gallons per person per day  
 Commercial: 300 gallons per acre per day  
 Schools: 9700 gallons per day (K-6)  
 18,000 gallons per day (Jr. High)  
 22,500 gallons per day (High school)

Application of these factors to the entire project is presented below:

<u>Sewage Generation (gallons/day)</u>				
<u>Residential</u>	<u>Commercial</u>	<u>K-6</u>	<u>Jr. &amp; Sr. High Schools</u>	<u>Total</u>
1,620,900	18,810	48,750	58,500	1,746,960

This total increase represents a 29% increase in the Chula Vista contribution to the Metropolitan Treatment system.

Sanitary sewer service is currently provided by a 15" line in Telegraph Canyon Rd. and an 8" line in Otay Lakes Rd. Most of the project area will have to be served via the future Rice Canyon Trunk Line which will connect to the Spring Valley Outfall which is located in the Sweetwater Valley.

The sanitary sewers proposed for this area were designed to handle flows from the natural drainage basins developed to a density of 11 persons per acre. This project proposes a gross density of about 6.9 people per acre. This density should be low enough to permit the addition of the proposed commercial uses.

Through the grading of the site or the provision of temporary lift stations, the sewage capacity within any given basin could be exceeded. Any such proposals should be discouraged and the flows within each basin monitored to avoid any temporary problems.

#### 5.17.2 Mitigation

No development within the Rice Canyon Basin should be permitted until the extension of the Rice Canyon Trunk Line to the Spring Valley Outfall is complete. (See plan policy C.6)

The transfer of sewage flows from one natural drainage basin to another either via pump station or land form alteration should also be discouraged.

#### 5.17.3 Analysis of Significance

Subject to the above mitigation, there will be no significant impact on the ability of the City of Chula Vista to provide sanitary sewer service to this property. (See Section 5.5 for Water Quality implications of this project.)

#### 5.18 Utility Services/Energy & Resource Consumption

##### 5.18.1 Impact

The proposed project will represent an additional demand upon all energy and resources associated with urban development. This will be true during the construction phase and throughout the life of residential occupancy. It is anticipated that service to the fully-developed project site will emanate from lines along Telegraph Canyon and Otay Lakes Roads. Phasing of subsequent construction will determine actual connection location.

Based upon data from the San Diego Gas & Electric Company, a typical dwelling will consume, on the average, between 650 and 700 kilowatt hours per month. Applying this higher figure for the purposes of a "worst case" analysis, along with a commercial usage rate of 12,000 kilowatt hours per acre per month, electrical consumption for the project is presented below:

<u>Number of Residential Units</u>	<u>Acres Commercial</u>	<u>Consumption Totals</u>	
		<u>Residential (KWH/MO)</u>	<u>Commercial (KWH/MO)</u>
5755	63	4,042,500	756,000

These long-range consumption rates will necessitate either implementation of San Diego Gas and Electric plans for establishment of the Bonita Substation or additional transformers at their currently-operating Sunnyside Substation. However, representatives of San Diego Gas and Electric have stated that these projected loads are within the parameters of growth which they are planning to meet in the areas, however, delays in acquiring sufficient fuel supplies could affect their long-term service capabilities.

It is anticipated that natural gas service will initially emanate from lines currently running along Telegraph Canyon Rd. Ultimate development may require installation of additional gas mains.

Based upon annual usage rates of 110,000 cubic feet per residential dwelling unit and 86,400 cubic feet per acre of commercial use, gas consumption for the initial project phase and at ultimate development is presented below:

<u>Number of Residential Units</u>	<u>Acres Commercial</u>	<u>Consumption Totals</u>	
		<u>Residential (cu/ft/yr)</u>	<u>Commercial (cu/ft/yr)</u>
5755	63	633.05 mill.	5.44 mill.

The San Diego Gas and Electric Company anticipates no unusual problems in supplying domestic natural gas service to residents of El Rancho del Rey. Curtailment of service due to temporary shortage or heavy peak demands will initially affect low priority industrial customers.

The following consumption factors were the basis for projections of water consumption, listed below:

Residential:	165 gallons per person per day
Commercial:	500 gallons per acre per day
	6,500 gallons per acre per day (60% of area)
	15 gallons per person per day (K-6)
	25 gallons per person per day (Jr/Sr Hi Sch.)
Parks:	6,500 gallons per acre per day

Water Consumption (gallons/day)

<u>Residential</u>	<u>Commercial</u>	<u>Schools</u>	<u>Parks</u>	<u>Total</u>
2,674,485	31,500	1,162,730	266,500	4,135,215

The initial phases of development will likely connect into and be adequately served by existing lines on Telegraph Canyon Rd. However, as project development proceeds north of the Telegraph Rice Canyon ridgeline, additional water supply facilities will be necessary. Extension of main feeder lines along "H" St. and provisions of storage tanks along certain ridgelines (to insure adequate water pressures) will be required. If the feeder line is provided prior to installation of East H St. the line should follow the alignment and grade of the street. The provision of water storage tanks will result in the potential for aesthetic degradation. Determination of the actual size and extent of these additions to the existing facilities will follow approval of specific land use plans for the project area. Long-range planning will insure that any additional facilities will adequately serve the long-range needs of the area.

The Pacific Telephone Company will provide telephone service to all the phases of project development without any foreseeable difficulty. All distribution facilities will also be underground.

While any development of the proposed project will incrementally increase future library demands, such increases will fall well within predicted capacities of City of Chula Vista Public Library facilities without adversely affecting them. The distance to the City Library from the project site may result in future residents utilizing the library facilities at adjacent Southwestern College.

The individual home owner will be responsible for establishment of a contractual agreement with the City's franchised contractor in order to obtain solid waste disposal service.

Projected solid waste generation is based upon 7.5 pounds per person per day from single-family dwellings.\*

\*All dwellings, for the sake of "worst case" analysis were considered single-family, except those designated apartments.

Commercial generation is based upon 5 pounds per employee per day.\*\* The anticipated solid waste generation is presented below:

<u>No. of Residents</u>			<u>Generation Totals (tons/yr)</u>	
<u>Single Family</u>	<u>Multiple Family</u>	<u>Acres Commercial</u>	<u>Residential</u>	<u>Commercial</u>
15,255	924	63	21,751	1150

The proposed project will result in a cumulative increase in the amount of solid waste currently generated in the Chula Vista area. The large scale of the overall project would be indicative of the significance of such an impact. However, disposal service to the area can be provided with little difficulty.

Little difficulty is foreseen in the area of solid waste collection or disposal for the development. Such an increase in solid waste production would result in an incremental decrease in the lifespan of the County landfill site to which the solid waste will be ultimately transported. That facility was recently expanded to accommodate continued disposal.

#### 5.18.2 Mitigation

There are no measures proposed to minimize the initial commitment of raw materials and fuels required in the development process. Often, in fact, a careful first outlay of such resources can yield considerable savings in subsequent years. However, all involved public utilities should be notified well in advance of any construction in order to

\*\*It is generally assumed that 20 commercial employees are generated by each commercial area.

coordinate efforts regarding installation of the on and off-site public utility infrastructure. It is recommended that project planners and representative consulting engineers work together to insure adequate interface between proposed and existing facilities.

Reclamation/recycling offers a potential for reducing the reliance of the San Diego area on imported water. A number of small reclamation projects have been undertaken in the last 25 years in the San Diego area and a number of studies have been conducted. The San Diego Metropolitan Facilities Plan (Lowry & Associates, 1976) reviewed the history of reclamation projects and studies and analyzed the potential for reclamation/recycling in the San Diego area. Possible uses of reclaimed/recycled water include agricultural or landscape irrigation, industry supply or cooling water, potable water supply and other uses. Estimates indicate as much as 100 mgd or 50 percent of the projected 200 mgd could be recycled with appropriate technology. Before any reclamation could be done on a large volume basis, the salinity of the wastewater needs to be significantly reduced. The use of State Project water will improve the domestic water supply and thus the treated wastewater supply that could be reclaimed/recycled.

The following specific measures are proposed to promote efficient use and distribution of energy resources during the life of the project. The City will review precise development plans to insure consistency with these measures.

(See plan principal D.8)

Measures for non-mechanical ventilation of structures should be detailed at the time of site plan review and provided at the time of construction.

Maximum benefit may be gained from the experience of early residents regarding design compatibility with prevailing climatologic regimes.

Street, parkway, recreational and walkway lighting should be selected and situated with regard for minimizing energy consumption.

Builders and architects should seek, within reason, appliances, interior lighting, insulation and space heating and cooling methods designed to minimize internal load factors.

Water saving devices, such as small reserve tank toilets (as mandated by State law) and low pressure water lines should be installed in all bathrooms and kitchens.

The utilization of solar energy should be encouraged wherever feasible. Of particular merit and

As noted above (Section 5.18.2) water consumption and waste water generation could be substantially reduced through a large volume reclamation/recycling program. Such a massive effort is beyond the scope of this project and must be pursued on a regional level.

As was noted in Section 3.5, this project is in a semi arid area with only intermittent rainfall. Population increases in this area have resulted in the importation of 95% of our water supply (Section 3.14.3). Climatic and legal circumstances have resulted in questions regarding the ability of water agencies to provide water in the volume anticipated by local agencies.

currently available are solar heaters for swimming pools and water heaters.

Landscaping throughout the project should utilize native materials to the greatest extent feasible to insure minimal water consumption.

The developer should comply with all pertinent standards set forth in the Energy Design Manual for Residential Buildings and standards for non-residential buildings.

Any efforts aimed at the establishment of solid waste recycling programs, particularly for paper goods, aluminum and glass would not only serve to reduce the projected solid waste generation totals, but would also slow the depletion rate of these non-renewable resources.

#### 5.18.3 Analysis of Significance

Implementation of the above conservation measures for individual dwelling units could reduce the continuing consumption of energy by 25% or more, as compared to homes in which these measures were not implemented. Further reductions in initial outlays of energy could be accomplished by minimizing the amount of grading to be done. Temporary expenditures of energy and overall consumption of resources could be reduced by constructing offsite sewers in lieu of pump stations.

## 5.19 Traffic

### 5.19.1 Impact

The following discussion of circulation and access impact as a result of the Revised General Development Plan for El Rancho del Rey is based upon a traffic analysis prepared by the City of Chula Vista's Traffic Engineer specifically for inclusion in this report.

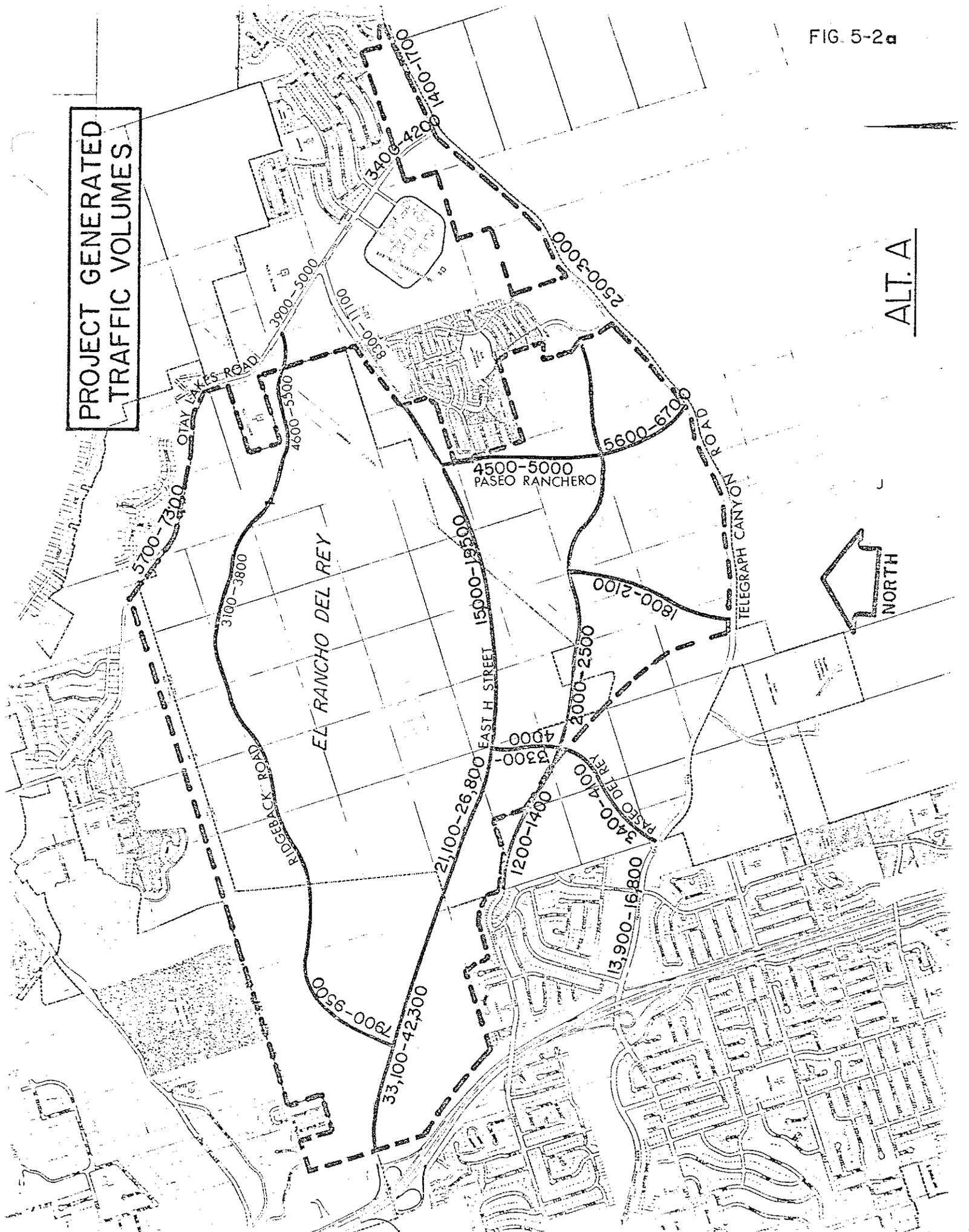
Figure 4-1 depicts the basic proposed major roadways and collector streets and specifies the development parcels adjacent to these roadways.

Figures 5-2(a) and 5-3(a) also depict the basic proposed street network (Alt. "a"). Additional alternative street networks (Alt. "b" and Alt. "c") are shown on Figures 5-2(b), 5-2(c), 5-3(b) and 5-3(c).

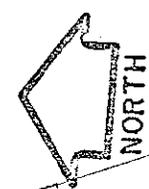
The maximum number of dwelling units or acres in each parcel is shown on Figure 4-1 only. Using traffic generation factors specified in Table 5-7 the traffic generated for each development parcel was calculated. The total number of trips is presented in Table 5-8. These trips were then assigned to the various streets within the proposed project under each of the alternates studied. The traffic volume on the various streets derived from this assignment process is shown on Figure 5-2(a,b,c) and 5-3(a,b,c).

The estimated total 1990 traffic volumes for each of the alternatives are shown on Figure 5-3(a,b,c). These volumes are made up of three components: project generated trips; shift of some of the trips on existing streets to the new streets; and trips generated by developments to the east of Otay Lakes Road.

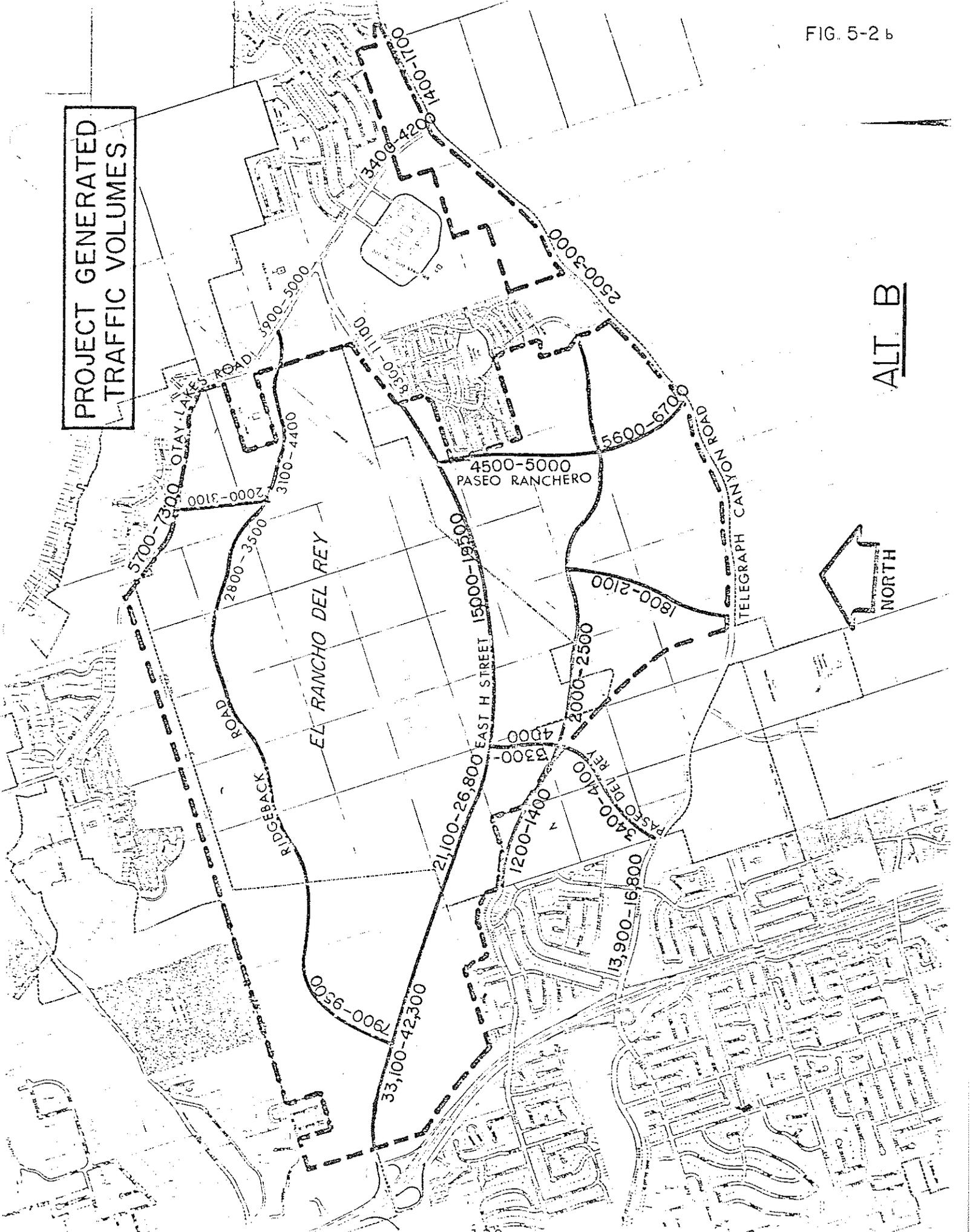
PROJECT GENERATED  
TRAFFIC VOLUMES



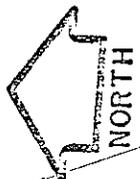
ALT. A



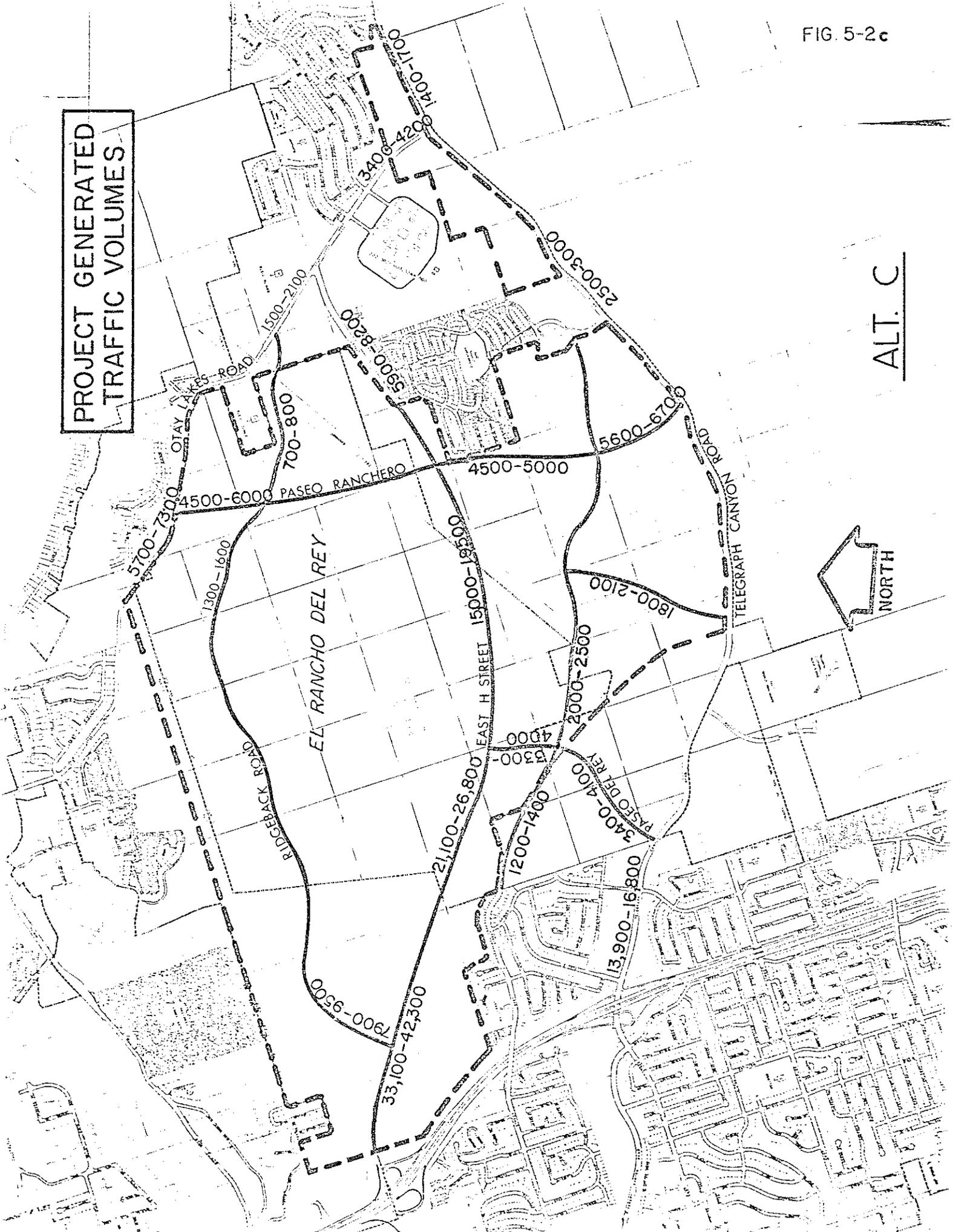
PROJECT GENERATED TRAFFIC VOLUMES



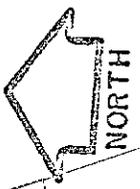
ALT. B



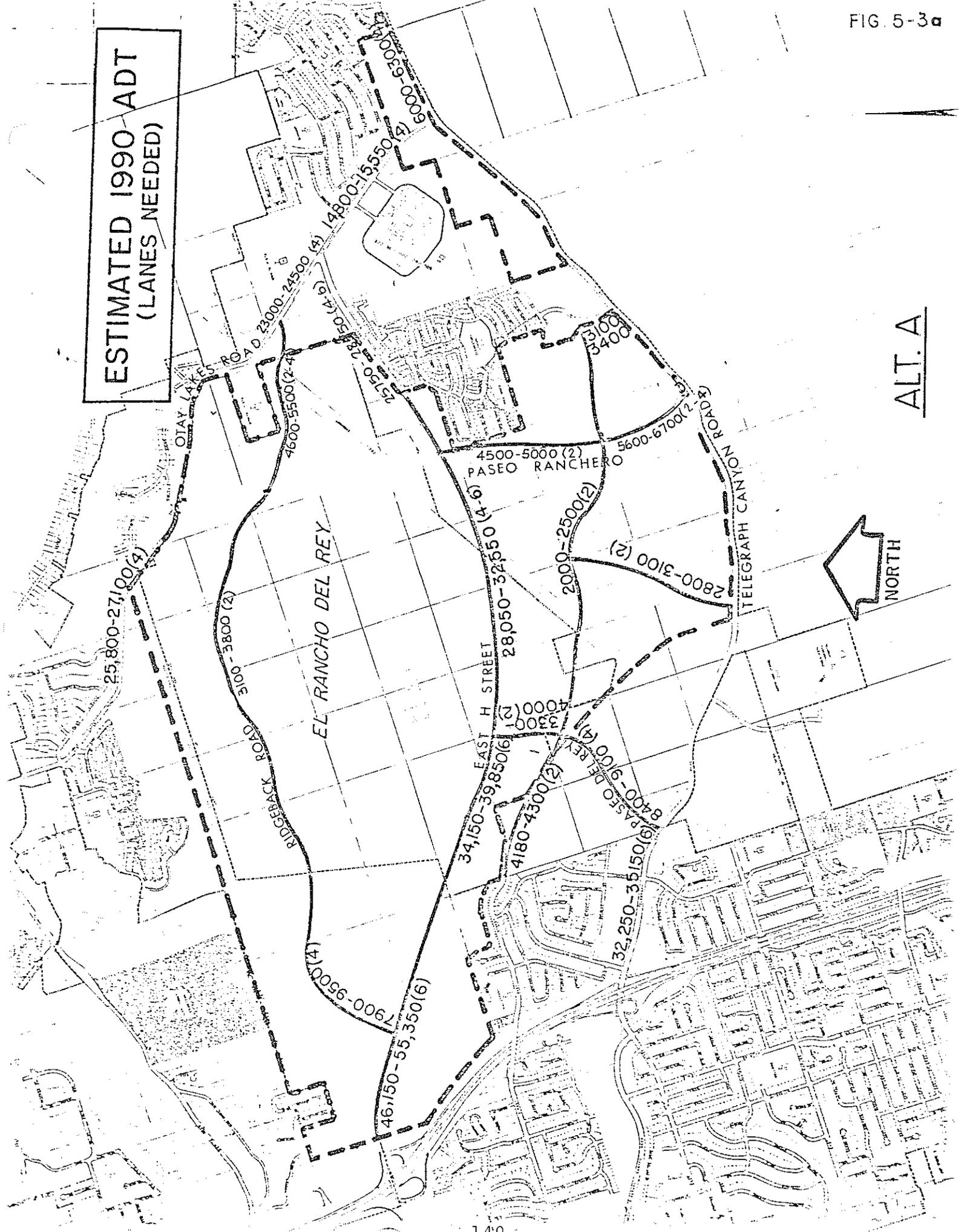
**PROJECT GENERATED  
TRAFFIC VOLUMES**



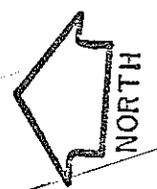
ALT. C



ESTIMATED 1990-ADT  
(LANES NEEDED)

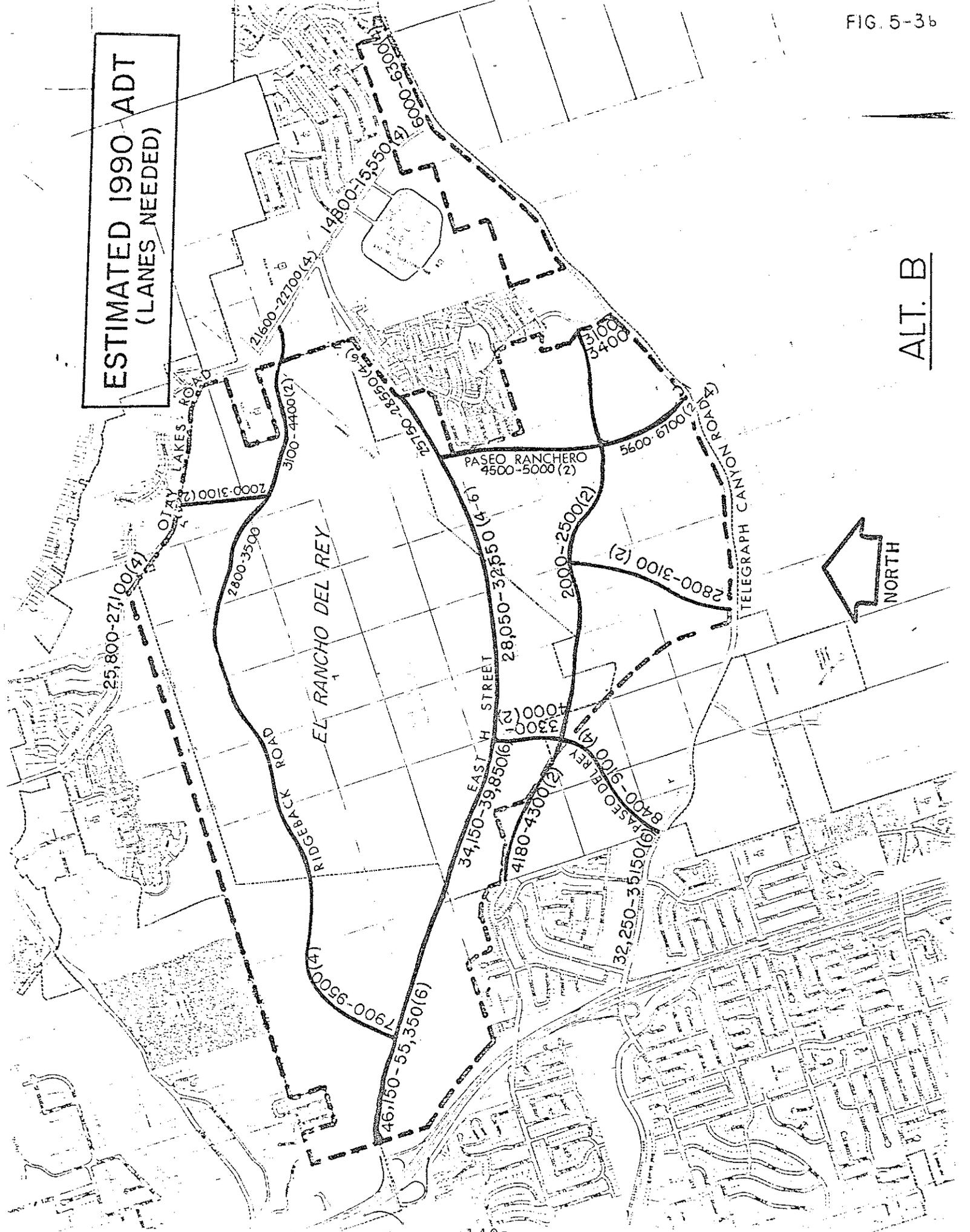


ALT. A

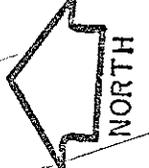
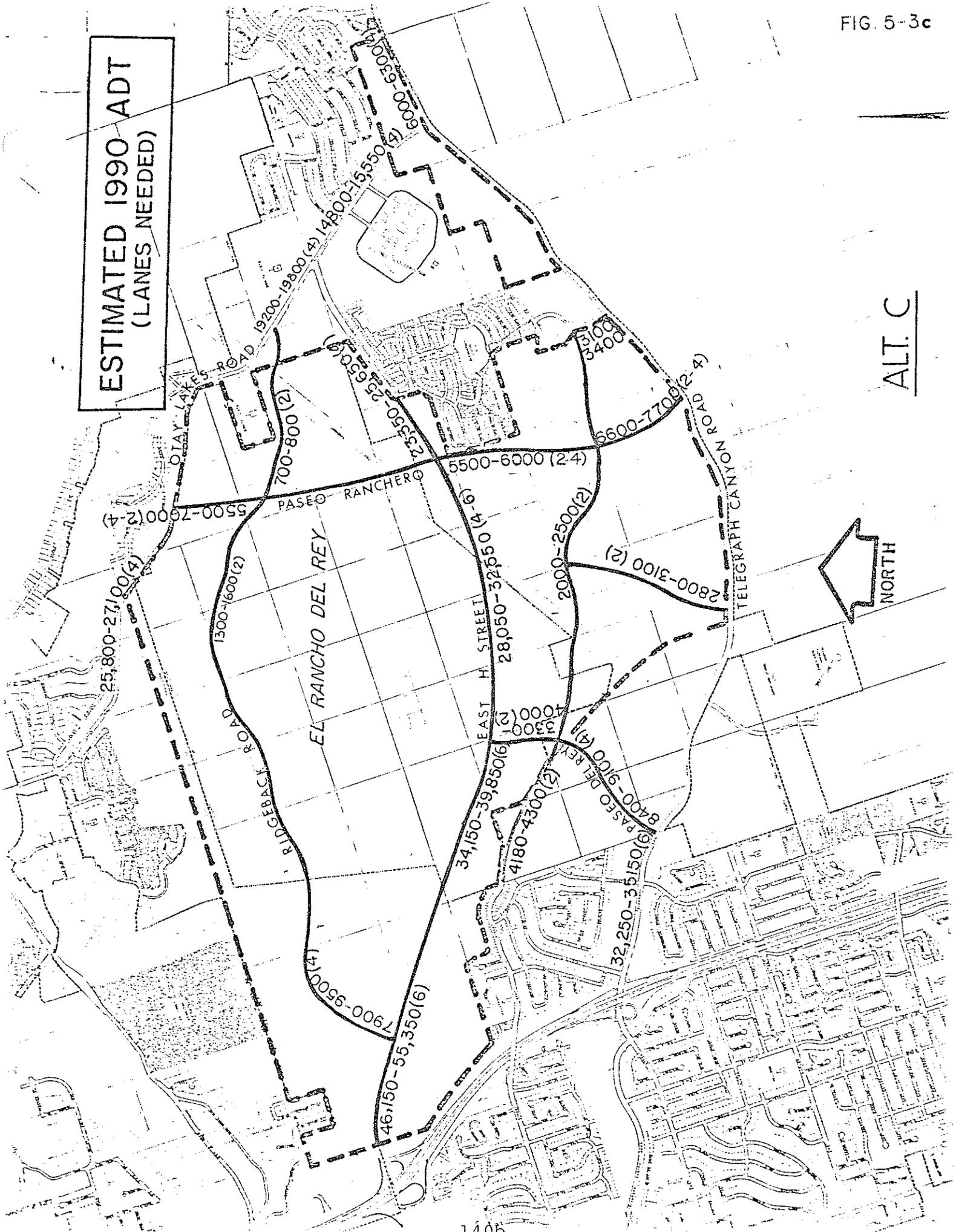


ESTIMATED 1990 ADT  
(LANES NEEDED)

ALT. B



ESTIMATED 1990 ADT  
(LANES NEEDED)



ALT. C

It should be noted that the sole difference between the various street network alternatives is in the extent of Paseo Ranchero shown. The major impacts of the alternative street systems are as follows:

Alternative "a" - The basic network [Fig. 5-2(a), 5-3(a)] preserves the open space of Rice Canyon and north of Ridgeback Road to the maximum extent. However, in concentrating Traffic flows, this alternative would create undesirable to unacceptable traffic congestion at various points in the system; particularly at "H" Street and Otay Lakes Road intersection.

Alternative "b" - This alternative [see Figure 5-2(b) and 5-3(b)] provides a connection (Paseo Ranchero) between Ridgeback Road and Otay Lakes Road which is not shown on the basic proposal (Alt. "a"). The additional street segment would traverse the otherwise open space adjacent to the southwesterly side of Otay Lakes Road. This roadway would afford a moderate reduction to traffic volumes along the easterly portion of Ridgeback Road, and would provide a secondary means of access into the northeasterly area of the development. Alternative "b" would, like Alt. "a", create undesirable to unacceptable congestion at various points in the system.

Alternative "c" - This alternative as shown on Figures 5-2(c) and 5-3(c) provides a connection (Paseo Ranchero) between "H" Street and Otay Lakes Road which is in addition to the basic network shown on Alt. "a". This street segment would traverse the open space of Rice Canyon and that adjacent to the southwest side of Otay Lakes Road.

This link in the roadway system is important in that it reduces the traffic volume and the turning movements at the intersection of East "H" Street and Otay Lakes Road. Existence of the link will minimize circuitous travel routes for trips to and from the northeast section of the El Rancho del Rey area and thereby reduce vehicle miles traveled. Alternative "c" provides secondary access to emergency vehicles for a major portion of the site. While Alt. "c" increases the total miles of street to be constructed it will minimize the amount of 4-lane roadway to be constructed along the easterly portion of Ridgeback Road. This alternate greatly reduces the traffic projected for Ridgeback Road which is significant since the extent of the plan is for this street to be low volume and rural in nature.

While yet unrefined, the City's projection of ultimate traffic on East "H" Street shows volumes

averaging in excess of 50,000 trips per day in that segment immediately west of Otay Lakes Road. It is apparent that congestion anticipated under the 1990 estimated traffic loadings [Figure 5-3(a)] will become totally unacceptable and impractical under the ultimate projection. Alternatives "b" and "c" would engender different traffic flow patterns than would the basic street network proposal (Alt. "a") and would consequently result in noise and air quality levels at variance with those shown elsewhere in this document for Alt. "a". The specific differences have not been calculated but they are not anticipated to be of major significance.

Extension of Paseo Ranchero in whole or in part between East "H" Street and Otay Lakes Road would necessitate additional changes in land form. The extension would be located in extremely rough topography and would require earthwork beyond that of the basic proposed network (Alt. "a").

#### 5.19.2 Mitigation

Figure 5-3 shows in parentheses following the project traffic volume ranges, the number of traffic lanes necessary to accommodate the projected maximum volume. An example is East "H" Street which would require 6 lanes.

No determination was made of which intersections would require signalization and left turn pockets. Once precise plans are submitted to the City, it will be feasible to establish which volumes of traffic are entering streets at what specific points. When that data is available, an evaluation of intersections will be made. It is reasonable to assume, however,

that a number of the proposed intersections with a substantial traffic volume will likely be signalized and have left turn lanes.

Since transit service is established according to demand, it is expected that bus routes will be expanded to serve the project area as development proceeds. Such service would decrease the residents' dependence upon automotive transportation. Traffic will be further reduced through provision of the proposed bicycle and equestrian trails throughout the project site. (See plan feature F.)

The Standards, Objectives and Policies of the Bike Routes Element of the Chula Vista General Plan should provide a basis of intent for design of not only bicycle paths but for equestrian trails as well.

#### 5.19.3 Analysis of Significance

Subject to the specified improvements and the future requirements for intersection studies, the projected traffic volumes can be accommodated without any substantial street capacity impact.

The project could also have the effect of increasing traffic volumes on streets west of I-805. If such an increase does occur, it would most likely impact "H" St. and "L" St. (See Engineering Memo dated Feb. 15, 1978, for data on why a detailed analysis is not possible at this time.)

Table 5-7

Traffic Generation Factors

<u>Residential</u>	<u>Factor</u>
Very Low & Low	12-14 trips/dwelling
Medium/Low	10-12 trips/dwelling
Medium	8-10 trips/dwelling
Medium/High	6-8 trips/dwelling
 <u>Commercial</u>	
Regional	400-600 trips/acre
Neighborhood	800-1000 trips/acre
Recreational	140 trips/acre
 <u>Schools</u>	
Elementary	600 trips
Jr. High	900 trips
Sr. High	1000 trips

Table 5-8

Total Trips Generated (Internal & External)

<u>Land Use</u>	<u>Total Units/Acre</u>	<u>Trips</u>
Low	1643	19,716-23,002
Medium Low	1884	18,840-22,608
Medium	1736	13,888-17,360
Medium High	372*	2,232- 2,976
Schools		2,500**
 <u>Commercial</u>		
Regional		12,000-18,000**
Neighborhood		5,080- 6,350**
Recreation		700

\*Does not include 120 dwelling units under construction in zone 10

\*\*Does not include trips generated such as home-school trips within the project, since they are included in the residential total.

## 5.20 Social Factors

### 5.20.1 Impact

The El Rancho del Rey project revision will at ultimate completion, result in the addition of 16,209 persons to Census Tract 29 and the City of Chula Vista. This figure is based upon population generation factors provided in the City of Chula Vista, Environmental Review Policy. This total represents a 437% increase to the present total of Census Tract 29 and 16.7% of the City of Chula Vista, 1985 projected population of 97,100. However, it must be acknowledged that this predicted total represents a maximum level in order to present a maximum adverse impact condition. A precise prediction can only follow the preparation of detailed development plans for all parcels within the project site. This resultant population increase will tend to have its primary impact upon resources and services of the City of Chula Vista, and related County, private enterprise, public utility and educational services.

It has been concluded that project housing values would be highly similar to those within the general area. However, housing types may vary due to planned policies to vary densities and housing types. As such, it can be anticipated that population characteristics will be similar to those residing in adjacent neighborhoods.

One of the listed goals of the Housing Element to the City General Plan encourages the dispersion of low to moderate income housing throughout the City. (The upper limit

of this income range is defined by HUD as \$20,442.) However, it must be pointed out that, in general, provision of low-cost housing is complicated by the high cost of on-site improvements and steadily rising construction costs. Potential areas of response to this low-to-moderate income housing need appears to rest in areas designated for apartments and, possibly, those for single-family attached dwellings.

#### 5.20.2 Mitigation

The proposed reduction in the number of units from that previously proposed for the project and its resultant population generation would serve to generally mitigate impacts related to such a significant population and housing addition.

The developer should explore Federal and State subsidy programs which aid in the reduction of housing costs. The City should require participation in an "Affirmative Fair Marketing Plan" (as recommended in the City Housing Element) in order to insure fair housing opportunities.

#### 5.20.3 Analysis of Significance

The proposed El Rancho del Rey development represents a significant addition to the population and housing inventories of the general area in question (Census tract 29) and the City of Chula Vista, as a whole. Although increased growth is already underway in this portion of Chula Vista, full development of El Rancho del Rey represents a large scale population and housing increase for this area.

The project areas's projected social structure may vary from the City-wide structure in particular categories. In comparison, the development's projected population could

have an overall younger population, lower unemployment rate, higher percentage of military households, higher rental and mortgage rates and a higher rate of gross incomes over \$15,000/year. None of these factors should result in any adverse social impact if recommended mitigation is pursued.

Between 1975 and 1981 the occurrence of major crimes is projected to increase steadily city-wide. There is no truly accurate method of projecting the future rate of crime due to uncontrollable human and environmental variables. It is anticipated that law enforcement and associated services will be expanded relative to the population growth and crime rate in an effort to minimize any increase in illegal activities.

5.21 Community Tax Structure

5.21.1 Impact

A preliminary cost/revenue analysis has been prepared examining the fiscal impacts related to the revised El Rancho del Rey project. It should be acknowledged at the outset that it is not possible to portray to a high level of accuracy the actual cost/revenue impact on such a generalized and long range development concept.

Tables 5-9 and 5-11 portray the predicted revenue and cost impacts related to the project. The assumptions used in this analysis follow each table.

Table 5-9  
City Revenues, El Rancho del Rey

<u>Revenue Sources</u>	<u>El Rancho del Rey</u>		
	<u>City-Wide Per Capita<sup>a</sup></u>	<u>Per Capita</u>	<u>Resultant Income<sup>b</sup></u>
Property Taxes	\$ 40.83	\$ 69.17	\$1,184,156 <sup>c</sup>
Taxes Other Than Property	54.86	68.58 <sup>d</sup>	1,111,532
Licenses & Permits	7.27	7.27	117,839
Fines, Forfeitures & Penalties	3.28	3.28	53,166
Use of Money & Property	5.15	5.15	83,476
Revenue from Other Agencies	76.58	76.58	1,241,285
Charges for Current Services	15.92	15.92	258,047
Other Revenue	<u>2.17</u>	<u>2.17</u>	<u>35,174</u>
TOTALS	\$206.06	\$248.12	\$4,084,675

KEY:

Table 5-10

City Revenues, El Rancho del Rey

- a. Factors based upon Revenue/Expense Report of June 30, 1977.
- b. Based upon ultimate total population of 16,209.
- c. Determination of resultant property tax revenues is based upon the following assumptions and procedures:

Market Value (1977 Dollars)

Equestrian Estates - \$90,000	1-2 DU/AC
Single-Family, detached - \$65,000	2-5 DU/AC
Single-Family, attached - \$45,000	6-10 DU/AC
Multiple Family - \$25,000	11-18 DU/AC

City Tax Rate

\$1.25 per \$100.00 assessed valuation

Tax Revenues (assumed market value x .25 x number of units  
x City tax rate)

Equestrian Estates

90,000 x .25 x 939 x 1.25/\$100 = \$264,094

Single-Family, detached

65,000 x .25 x 2588 x 1.25/\$100 = \$525,686

Single-Family, attached

45,000 x .25 x 1736 x 1.25/\$100 = \$244,125

Multiple Family

25,000 x .25 x 492 x 1.25/\$100 = \$ 38,438  
\$1,072,343

Assumed value of Retail Center

165,000/AC x 53 AC x 1.25/\$100 = \$109,313

Assumed value of Recreation/Commercial

20,000/AC x 10AC x 1.25/\$100 = 2,500  
\$111,813

TOTAL \$1,184,156

- d. Due to the higher income level of the proposed project and the proximity of the 40 acre retail center, a factor of 1.25 is assumed.

Table 5-11

City Expenses, El Rancho del Rey

<u>City Expenses</u>	El Rancho del Rey		
	<u>City-Wide Per Capita<sup>a</sup></u>	<u>Per Capita</u>	<u>Resultant Expense<sup>b</sup></u>
General Government	\$ 28.18	\$ 28.18	\$ 459,052
Fire Department	19.95	29.93 <sup>h</sup>	487,478
Police Department	35.09	42.11 <sup>c</sup>	685,939
Public Works	24.47	36.71 <sup>d</sup>	597,924
Planning	4.92	4.92	79,748
Library	9.57	9.57	155,895
Parks & Recreation	14.56	14.56 <sup>e</sup>	237,182
Other Funds	<u>64.70<sup>f</sup></u>	<u>64.70</u>	<u>1,053,963</u>
TOTALS	\$201.44	\$230.68	\$3,757,181 <sup>g</sup>

KEY:

Table 5-12

City Expenses, El Rancho del Rey

- a. Factors based upon Revenue/Expense Report of June 30, 1977.
- b. Based upon ultimate total population of 16,209.
- c. The deviation from the City-wide per capita is based upon a 20% increase in personnel and equipment requirements.
- d. This document also estimates increased public works costs on the order of 1.5 times the City-wide per capita due to low density development and the nature of the topography.
- e. While other analyses have projected per capita parks and recreation costs to be lower than the City-wide average, the City percapita figure is used for the purposes of "worst case" analysis.
- f. Major expenditures in this area include gas tax fund, capital improvement projects, sewer service fund, retirement fund, public employee program, central garage and miscellaneous expenses.
- g. Any deviation from per capita totals when multiplied by resultant population and resultant expense totals is due to rounding.
- h. This figure has been increased by a factor of 1.5 due to the need for an additional fire station and related costs to serve the project.

Table 5-13

Summary of Table 5-9 and Table 5-11

<u>Revenues and Expenses From El Rancho del Rey</u>	
Revenues	\$4,084,675
Expenses	<u>3,757,181</u>
Annual Gain	327,494

This preliminary analysis indicates that the total El Rancho del Rey project will result in a slight positive cost/revenue impact to the City of Chula Vista.

Table 5-14 and 5-15 summarize the projected incomes and expenditures to the involved school districts.

Table 5-14

School District Income

<u>Source</u>	<u>Tax Rate</u>	<u>Amount Total Project</u>
Property Tax	\$5.475/\$100 assessed value	\$4,910,938

Table 5-15

School District Expenditures

	<u>Expenditure (per student)</u>	<u>Amount Total Project</u>
Elementary School District	\$1,386	\$4,015,242
Secondary School District	1,865	<u>5,477,505</u>
TOTAL		\$9,492,747

The property tax supports of the total budget of the school districts is as follows: Sweetwater Union High

School District 25.06%, Chula Vista City School District 33%. Therefore, the amount of student expenditure which should be supplied by is \$2,755,744.

Table 5-16  
Property Tax Cost/Revenue Comparisons

Projected Income	\$4,910,938
Property Tax Related Cost	<u>2,755,744</u>
Revenue Greater than Expense	\$2,155,194

These calculations do not include the proportion of school income is derived from other sources. The breakdown of the percent of income from other sources is as follows:

	<u>Elementary District</u>	<u>Secondary District</u>
State Aid	48%	51.25%
Federal Aid	4.6%	6.54%
Other	14%	17.15%

The state and federal laws regulating such revenue have been and are currently under revision. Therefore any attempt to project incomes from these sources would be inaccurate.

These calculations also do not involve the cost of providing permanent school facilities. The cost of providing 5 elementary schools, 2 junior high schools and one senior high will be substantial and neither school district has the funds to provide such facilities.

It must be re-emphasized that the data relating to these cost/revenue analyses is subject to major changes

prior to actual development. Therefore, any conclusions must be, at this stage, considered extremely general.

In addition to these quantified revenue/cost relationships, there exists several indirect economic effects of the proposed project. The increased population base will result in an incrementally increased patronage to local commercial centers which will increase sales tax revenues, will also encourage a potential increase in the local labor force. In addition, new jobs will also be created on a short-term basis through construction activities. The indirect impacts mentioned above are a function of the economic multiplier, wherein subsidiary economic demands, such as new services and demand for new facilities, are created in the wake of initial developments.

#### 5.21.2 Mitigation

The cost of providing City services to the project will be offset by revenue derived from the development. Therefore no mitigation is necessary.

The operating expenses of the school districts will likely be offset by income. But the cost of providing substantial new permanent educational facilities is beyond the current fiscal abilities of the school districts.

City of Chula Vista policy requires that prior to consideration of project's, letters from the school districts assuring that educational facilities are available must be provided. Developers have, in the past, provided financial assistance in providing temporary facilities. The provision

of permanent facilities will probably require the expansion of the financial abilities of the school districts. This could be done either through a bond election, entering into a lease back agreement for the construction of facilities or other arrangements.

5.21.3 Analysis of Significance

The provision of City services to the project will likely not result in any impact on the City's tax structure.

The provision of permanent educational facilities to serve the needs of this project will likely result in a substantial impact on the fiscal status of the school districts and therefore the tax structure.

This could be a substantial and adverse economic impact on the community.

6.0 ANY ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED  
IF THE PROPOSAL IS IMPLEMENTED.

This project is being proposed in an area of geologic hazard. Ground rupture along the La Nacion fault is possible although this fault is not classified as "active". Regulation of development in accordance with the recommendations of geologists relative to setbacks from these fault zones will insure no substantial hazard.

The site will be subject to earthquake induced ground shaking similar to most of California.

The project site contains alluvial and expansive soils. Standard regulations of the grading of the site will mitigate any potential problems.

There will be an incremental increase in water pollutants as the area is urbanized. This impact is not considered significant considering the size of overall drainage basins involved.

Urbanization of the site will result in a substantial increase in runoff. Existing and planned facilities on and off-site will discharge this runoff in a safe and non hazardous manner.

The proposed development at this site will result in substantial changes in land form which cannot be avoided, In order to provide building sites for the proposed uses, along with adequate access, substantial grading will be required. This necessary earthwork can be accomplished safely and economically within the framework of our current technology.

There will be an unavoidable change in the micro climate of the area. This minor change is not thought to be significant.

The increased traffic associated with the project will

be accompanied by increased vehicle emissions adding pollutants to the regional air cell. Most of these vehicle trips would likely occur regardless of whether this project were implemented.

The traffic increases will also result in an increased noise level. The impact on the residents of the project can be reduced to an insignificant level through setbacks, insulation and shielding techniques previously discussed.

The grading activities necessary to implement the project will result in the removal of the natural vegetation and wildlife, except for those areas to be retained in their natural state. This will cause the migration of the animal life to the east; however, many individuals will be lost through reduced food supply and increased predator activity.

The loss of vegetation cover includes rare and endangered species previously discussed. This will be partially off-set by the retention of natural open space and the transplanting of some species.

There are several minor to moderately important archaeological sites on this property. Mitigation of the potential impact on these resources can be accomplished through field work, report preparation and recordation. There are no historical sites on the property.

The increased student population of the area will require the provision of new schools to serve the area. The school districts currently have no funds to provide these facilities. The developers of the project will be required to dedicate school sites and provide funds for temporary facilities.

The project includes several parks and areas of open space necessary to serve the population of the project. No significant

impact is anticipated. The provision of other City and utility services can be accomplished with few problems.

The proposed development will generate a substantial increase in traffic. The impact of this increase will be mitigated through the provision of necessary public rights-of-way and public improvements.

Many of these unavoidable impacts can not be mitigated to an insignificant level. This project is being proposed as one method to reduce the impacts of development of this property. If the project were to be implemented in accordance with the existing general development plan, more adverse impacts would result.

Additionally, this area has long been designated for urbanization on the City of Chula Vista and County of San Diego General Plans. It has also recently been tentatively designated as one of the areas in San Diego which should be developed in order to manage the overall growth patterns in the region. Therefore, this project is being proposed in light of the unavoidable adverse impacts.

## 7.0 ALTERNATIVES TO THE PROPOSED ACTION

### 7.1 No Project/Open Space

In considering alternatives to the proposed project, the option of no development would continue the current characteristics of the property. As long as the site is privately owned, and particularly after completion of the I-805 freeway, there will be increasing pressures for its development. The adopted General Plan - 1990 for the City of Chula Vista designates the property for the uses proposed in this project, and the market study conducted in January, 1974 indicates adequate support for the amount of commercial floor space proposed in the shopping center.

A majority of this property could be managed in its natural condition, while scattered areas already damaged beyond recovery as a result of off-road vehicle activity, could be replanted. It could be developed and maintained by the City Park and Recreation Department. Development of the park's recreational assets could proceed in phase implementation. The possibilities include: 1) the scarred and denuded slopes of the lower Rice Canyon near I-805 could be planted during the rainy season with adaptable types of shrubbery. This landscaping could compliment and beautify the area and this would be best for light use camping or picnicing, site provisions for trailer or campers could be provided at this locality, 2) at some future date more active recreational facilities could be considered, 3) weaving through the hills and canyons of this land, is a present network of equestrian trails. These could be provided

and improved for greater use, 4) other scarred and denuded areas adjacent to the camp site could be cordoned off and designated as off-road vehicle use areas. The Rice Canyon area is a unique vegetation and wildlife habitat and could become a regional park for the rapidly urbanizing South Bay area.

## 7.2 Existing General Development Plan

The development of the property in accordance with the existing General Development Plan would result in greater environmental impacts than would result from the proposed revision. The higher population would greatly tap the ability of the urban support system to serve the project. This is especially true of school districts which do not have adequate facilities or finances to provide the facilities to serve this area.

There also would be a greater impact on the natural environment. The greater amount of grading would alter the land form even more than is proposed, reduce the natural vegetation and habitat. Of great interest would be the development of the "north leg" of Rice Canyon which is proposed for retention as natural open space in the revision. This canyon is the most unique in the area because it not only contains the cactus with a more southern affinity and the coastal sage scrub with a more northern affinity, but also a riparian growth on the canyon floor.

## 7.3 Lower Density/Hillside Design Techniques

If the project were to be implemented at a lower density, incorporating more of the design techniques necessary to retain the natural land form and if units were clustered on the

most appropriate development areas, there would be less adverse impact on the environment. This proposal has been made on the western 450 acres in the Rice Canyon Development/Conservation Guide prepared for the City of Chula Vista by Sedway/Cook.

The problem with this type of development guide for the entire planned community involves the marketability of a large number of unique housing types and the provision of on and off site public improvements at an even lower density.

#### 7.4 Alternative Road Systems

In addition to alternatives for the overall project, consideration has been given to alternatives to the basic proposed street system. The alternatives ("b" and "c") provide for the construction of additional segments of Paseo Ranchero Between East "H" Street and Otay Lakes Rd. These alternatives (particularly "c") provide varying degrees of improved access, better circulation and reduced concentration of traffic at critical locations within the site. These advantages are offset in part by the necessity to construct additional roadways through open space areas.

8.0 THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY.

8.1 Cumulative and Long-Term Effects of the Project-Adverse Impacts.

The substantial changes to the existing landforms caused by lowering the hilltops and ridges, and filling a portion of Rice Canyon and its tributaries will be long-term adverse impacts. Similarly, the earthwork activities will also remove much of the natural vegetation and wildlife from the site, although some interruptions have already occurred from the activities of trail bike riders in the area.

Increasing traffic volumes along the freeway and major streets in the area may eventually result in traffic congestion at certain intersections, as regional growth approaches maximum growth levels. The extent of congestion will depend, to a large degree, upon the balance achieved between public and private transportation modes, and the relative allocations of energy resources to support the various components of the systems.

The street system in the proposed project is designed to adequately serve the long-term development of the subject properties, as well as those to the east. No serious congestion is expected, nor will the proposed project preclude additional planned developments to the east. The anticipated traffic loads will limit future options available to the City in making land use decisions on land to the east of this project. Generators of high traffic volumes could not be approved while maintaining an adequate level of service on East "H" St., Telegraph Canyon Rd. and other streets.

Although heavy emphasis must necessarily be placed upon the private automobile as the major transportation mode in the area, future options for other modes will remain open. I-805 is a major regional travel corridor, which could become one route in a future transportation system. "H" St. is a natural local route which could initially carry bus service and eventually could accommodate a more sophisticated type of transit system. The concentration of commercial, residential, recreational, and related activities at the intersection of these two major travel routes could significantly assist in establishing the feasibility of a future public transit system in this part of the region.

A bike path will be provided along "H" St., which will help maintain the continuity of this City-wide system. Pedestrian amenities such as walks and landscaping will be installed throughout the project, to encourage this basic mode of transportation. As future modifications to the total transportation system become feasible and generally acceptable, appropriate physical adjustments can be made to the present project design.

There will be other long-term impacts caused by the proposed project, such as air pollution caused primarily by motor vehicle emissions. These emissions are being reduced by increasingly stringent control requirements, and the development of the shopping center at a location convenient to its support area may actually reduce the length of vehicle trips travelled in the South Bay area. Continued improvements and greater use of public transportation in the future will also tend to minimize the long-term adverse impacts.

The additional urbanization proposed for the subject properties will increase the total runoff and sedimentation flowing

into the Sweetwater River, Telegraph Canyon and Rice Canyon Basins. Such incremental additions tend to increase the need and pressures for expanded drainage facilities in the downstream areas. This will limit options currently available on the type of flood plain management/protection that will be utilized in the Sweetwater River flood plain/Telegraph Canyon Rd. Basin. These cumulative impacts are generally unavoidable as major vacant land areas become urbanized.

## 8.2 Justification for the Project

In January, 1974, a market study was conducted by Real Estate Research Corporation to determine the support for a regional shopping center at the proposed location of the proposed Plaza del Rey. The economics consultants assembled basic population and income data compiled by the U.S. Census Bureau and the San Diego County Planning Department, and investigated the major existing and proposed commercial facilities in the South Bay area. They determined the total annual expenditures for shoppers' goods in the subregional and concluded that there was a need for a regional facility. Although questions were raised about the size of the center proposed, the need for some retail facilities in the area was justified.

This area of the San Diego region is well related to existing urban services. If development were directed to other portions of the County, it would be more likely that significant environmental impacts would result. Therefore, this site is under consideration as one of the areas where growth would be directed under a region-wide growth management system.

9.0 ANY IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION, SHOULD IT BE IMPLEMENTED.

The changes in the existing landforms and substantial reduction in existing flora and fauna will be long-term, irreversible changes caused by the proposed project. Mitigating measures such as landscaping and design features have been previously discussed in this report. The urbanization of this currently vacant acreage will commit the land to a pattern of development which is essentially irreversible, depending upon the length of one's projection.

The energy resources required to provide the project with electricity and gas, and the construction materials and labor used will constitute an irreversible consumption of these resources in the proposed project. Also the effects on the landform, fauna, flora, paleontological resources, increased runoff, water quality, public services and utility requirements is irreversibly committed.

The environmental changes caused by the increased traffic, air pollutants, and noise are also irreversible; however, the impacts are mitigatable as previously discussed in Section 5.0 of this report. Moreover, both air and noise impacts are subject to improvement over the long-term through new technology.

#### 10.0 THE GROWTH-INDUCING IMPACT OF THE PROPOSED ACTION

The proposed development will obviously contribute to the growth trend in Chula Vista and nearby areas. This growth reflects the current public policy expressed in the City's General Plan - 1990, which states, "By 1990, it is expected that nearly half the population of Chula Vista will be living in new communities located on the mesas and foothills easterly of the Inland Freeway."

The completion of the I-805 freeway in 1975 has provided a very strong stimulus for growth in the area, which has already occurred in a southeasterly direction. The annexation and development of Southwestern Community College, nearby subdivisions, and secondary schools have followed a public planning and growth policy which may be irreversible. Each individual project extends streets and utility services which facilitate the development of adjacent properties, and thus provides some growth-inducing impact. All are supported, however, by previously established growth policies which reflect market demands for additional housing and related public and private services.

"H" Street and other utilities are proposed for extension, east of I-805, an additional 2 miles to the east, to a direct connection with Otay Lakes Rd. This action will have a substantial growth-inducing impact because it will provide major street accessibility to a large undeveloped area, and complete a continuous loop system between Otay Lakes Rd. and I-805, consistent with the adopted General Plan 1990 of the City of Chula Vista.

11.0 ORGANIZATIONS AND PERSONS CONSULTED

Planning Department

Director of Planning, D. J. Peterson  
Assistant Director of Planning, Norman G. Williams  
Senior Planner, Daniel Pass  
Current Planning Supervisor, Kenneth G. Lee  
Environmental Review Coordinator, Douglas D. Reid

Public Works Department

Director of Public Works, William J. Robens  
Assistant Director of Public Works, John Lippitt  
Senior Civil Engineer Harshman  
Associate Civil Engineer Daoust  
Traffic Engineer Hansen  
Associate Civil Engineer Hansen

Fire Department

Acting Chief Longerbone

Police Department

Police Chief Winters

Building & Housing

Director of Building & Housing, Gene Grady

Otay Municipal Water District

R. D. Hamilton, Civil Engineer

12.1 List of Agencies & Persons Commenting on the Draft EIR

Otay Municipal Water District  
Air Pollution Control District  
Environmental Control Commission  
Safety Commission  
Regional Water Quality Control Board  
Dr. Peter Watry  
Harlan Skinner  
James Fairman/El Rancho del Rey  
Reva Lynch  
Eugene Coleman  
Fred Gathe  
Margery Watrous  
Mitchell Beauchamp

12.2 Written Input



*Established 1956 - Dedicated to Community Service*

10595 JAMACHA BOULEVARD SPRING VALLEY CALIFORNIA 92078  
TELEPHONE: 462-2222 AREA CODE 714

January 20, 1978

City of Chula Vista  
Department of Planning  
Post Office Box 1087  
Chula Vista, CA 92012

Attn: Mr. Douglas Reid

Subj: El Rancho Del Rey Master Plan

Dear Mr. Reid:

Thank you for allowing us the opportunity to comment on the revised community plan for El Rancho Del Rey. The original master plan for the El Rancho Del Rey water supply was prepared by James M. Montgomery, Inc., consulting engineers in March of 1972 based on the then existing master plan. The densities were substantially higher than those now planned, therefore, the sizing of mains and storage may be reduced somewhat.

We do know that another connection to the aqueduct will have to be made east of Otay Lakes Road and H Street. A backbone system will have to be extended from this point down H Street and be looped to the existing 20" line in Telegraph Canyon Road. Storage facilities will be required for operating storage, fire flow, and emergency reserve.

I am enclosing a copy of the original water system master plan which indicates the sizes of mains which would have served for former densities. We will be able to revise these figures as soon as we can determine what the densities will be in the various areas. The major point that we are trying to impress on everyone is that development

**RECEIVED**

BY \_\_\_\_\_

JAN 23 1978

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

of the westerly portion of El Rancho Del Rey is going to require extension of a main feeder down H Street. It would be uneconomical for the water district to install a main that did not follow at least a graded road bed that would comply with future grade and alignment. Otay's ability to serve areas north of J Street extension will be severely limited if service must be obtained from the 20" in Telegraph Canyon Road. We will be able to handle the development at the westerly end of the project off the 20" and the new proposed reservoir northeast of El Rancho Del Rey 5, however for developments beyond that, in the area north of J Street, we will have to install the transmission main from the new #6 connection down H Street.

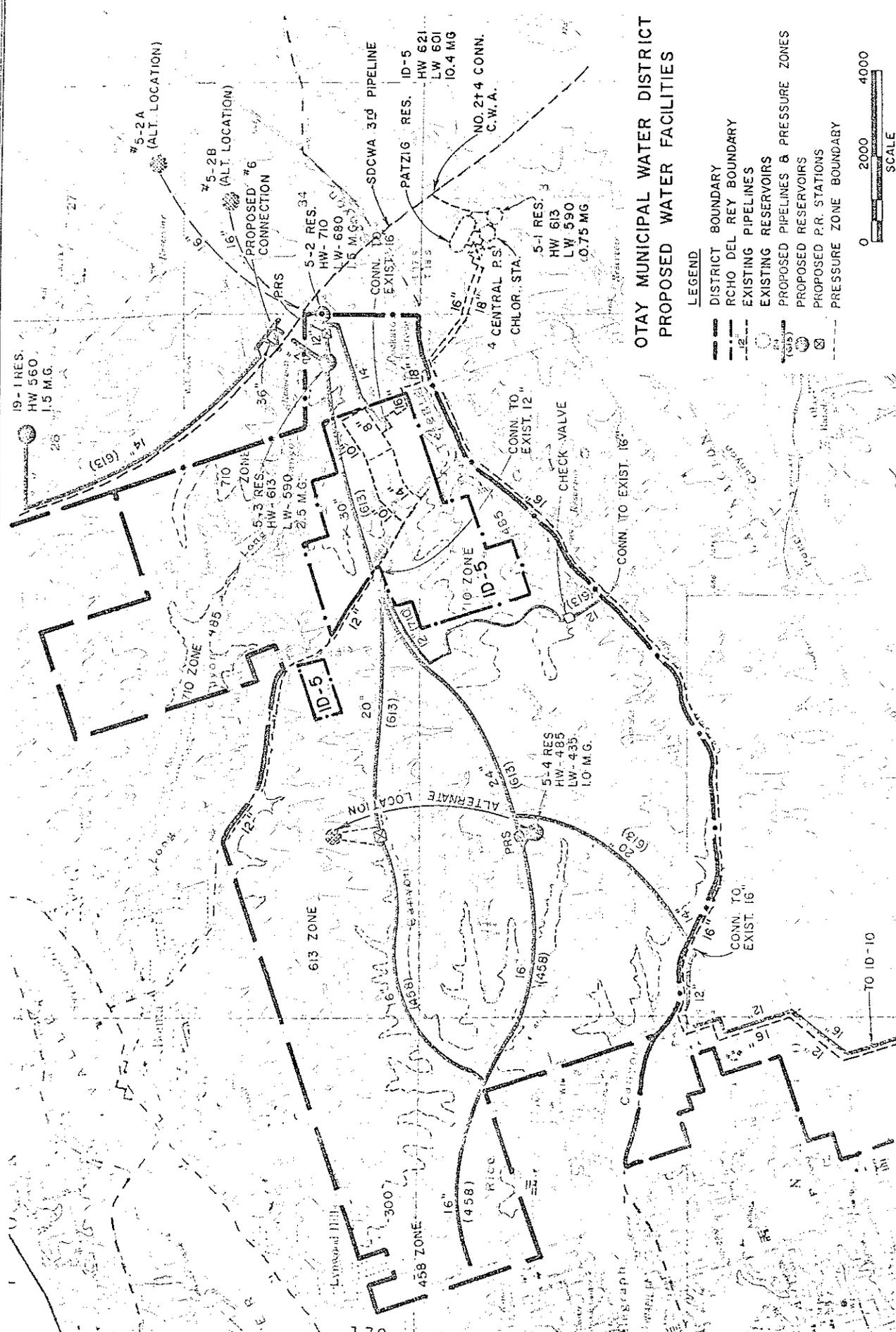
If you have any questions, please give me a call.

Very truly yours,



R. E. Barber, Jr.  
Chief Engineer

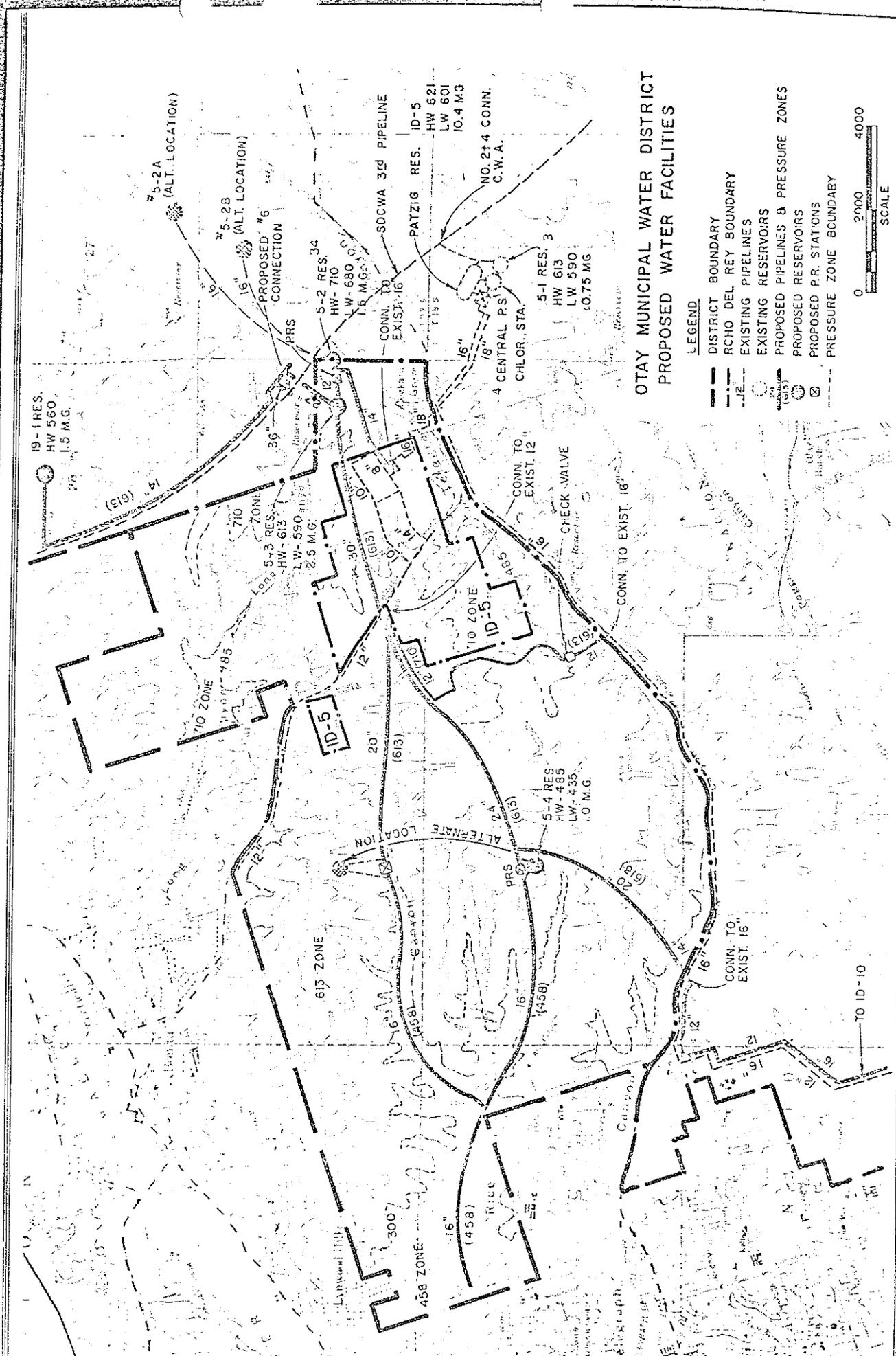
dm  
encl.



**OTAY MUNICIPAL WATER DISTRICT  
PROPOSED WATER FACILITIES**

- LEGEND**
- DISTRICT BOUNDARY
  - - - RCHO DEL REY BOUNDARY
  - - - EXISTING PIPELINES
  - EXISTING RESERVOIRS
  - (PROJ) PROPOSED RESERVOIRS
  - (PROJ) PROPOSED P.R. STATIONS
  - - - PROPOSED PIPELINES & PRESSURE ZONES
  - - - PRESSURE ZONE BOUNDARY





**OTAY MUNICIPAL WATER DISTRICT  
PROPOSED WATER FACILITIES**

- LEGEND**
- DISTRICT BOUNDARY
  - - - RCHO DEL REY BOUNDARY
  - - - EXISTING PIPELINES
  - EXISTING RESERVOIRS
  - PROPOSED PIPELINES & PRESSURE ZONES
  - PROPOSED RESERVOIRS
  - PROPOSED P.R. STATIONS
  - - - PRESSURE ZONE BOUNDARY





# AIR POLLUTION CONTROL DISTRICT

COUNTY OF SAN DIEGO

WILLIAM SIMMONS  
Air Pollution  
Control Officer

9150 Chesapeake Drive  
San Diego, Calif. 92123  
(714) 565-5901 (MS 0176)

January 20, 1978

Douglas Reid  
Environmental Review Coordinator  
Chula Vista Planning Department  
P.O. Box 1087  
Chula Vista, CA 92012

SUBJECT: El Rancho del Rey - Draft Environmental Impact Report

After reviewing the above referenced Environmental Impact Report (EIR), the Air Pollution Control District finds the EIR to be inadequate because of the following reasons:

- . Report incomplete
- . Failure to identify significant Environmental Impacts
- . Inadequate Air Quality Analysis
- . Inconsistencies in proposed amendments to the general plan
- . Inconsistencies between mitigating measures for air quality and proposed amendments to the general plan.

Section 4.2, Land Use Plan on Page 83 of the EIR is blank. If this section is to be omitted, the section number and title should be eliminated from the report. On the other hand, if this section was supposed to be incorporated in the EIR, it is obviously missing and the report is incomplete.

The section on Analysis of Significance (page 104) fails to identify the project area as a receptor of air pollutants from the adjacent urban area. The report should indicate that any future residents of the project area will be impacted by air pollutants such as ozone, and non-methane hydrocarbons from the Chula Vista urban area because of the prevailing westerly winds.

RECEIVED

BY \_\_\_\_\_

JAN 23 1978

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

The assumption of fuel usage for electrical power at SDG&E is incorrect (page 102). According to data supplied by SDG&E, to the District, approximately 75% of the fuel used at the South Bay Power Plant is low sulfur fossil fuel. The 38% figure assumed in the report is unrealistic for calculating pollution emissions for stationary sources.

It is not clear in the report what stationary sources were considered in arriving at the data supplied in Table 5-2. The emission factors used to calculate the pollution emissions from mobile and stationary sources needs to be included in the EIR for review purposes. The source of the emission factors should be referenced.

An inconsistency exists between Section III Features and Proposals of the Plan and Section II Goals, Objectives, Policies and Principles. Specifically, the statement in Section III-B page 79 states:

The General Development Plan also provides adequate areas for local, community, and regional shopping facilities and services.

while in Section II-D-12 page 78 states:

Staff, however, feels that this center (El Rancho del Rey's) might promote the decline of the Chula Vista's shopping center, and is of the opinion that Chula Vista's increasing regional shopping center needs be met by the extensive expansion of the Chula Vista/Sears shopping complex.

While the GDP provides adequate land for a regional shopping center, it is doubtful if the land will be utilized for that purpose if staff recommends against it.

Another inconsistency in the EIR exists between the proposed mitigating measures for Air Quality and the proposed amendments to the General Development Plan (GDP). Specifically, one of the proposed mitigating measures for Air Quality is the use of bicycle trails to link areas of high use; while the proposed amendments to the GDP proposes a tortuous equestrian-hiking trail system. The GDP does not include a bicycle trail.

Your Agency, through CPO, has previously approved the San Diego Air Basin Regional Air Quality Strategies (RAQS). The RAQS Tactic T-7 Maximum Bicycle System envisions

". . . A major expansion of bicycle facilities including: the Adopted Regional Bicycle Route System, Community Oriented Routes, Bicycle Feeder Systems to Public Transit, possible employer incentives and includes facilities. Such facilities include theft resistant racks, connections with express bus service, showers, and locker rooms."

Douglas Reid  
Environmental Review Coordinator

January 20, 1978

- 3 -

The inclusion of this tactic in the projects General Development Plan is anticipated to reduce vehicle miles traveled and vehicle trips which in turn reduces vehicle related emissions. The failure to include Tactic T-7 in your General Development Plan would make the plan inconsistent with RAQS and therefore a significant environmental issue.

If you have any questions, please call me at 565-5904.

Sincerely,



RAYMOND L. WEEKS  
Environmental Management Specialist

RLW:jlw

cc: Phil Wondra, EPA  
William C. Lockett, ARB

January 17, 1978

TO: Planning Commission *George B. Gillow*  
FROM: George B. Gillow, Chairman/Environmental Control Commission  
SUBJECT: EIR-78-2 (El Rancho del Rey)

The Environmental Control Commission recommends acceptance of EIR-78-2 in accordance with guidelines set by CEQA.

Major concerns of the Commission are as follows:

- (1) Traffic problems will be generated throughout the City, especially on Telegraph Canyon Road.
- (2) The potential of overcrowding of schools.
- (3) The potential of water shortages in the mid-80's.
- (4) "Biological sensitivity".

The membership commented that this plan is the "most reasonable plan offered to date for this area".

GBG:av

COMMENTS APPROVED AT ENVIRONMENTAL CONTROL COMMISSION MEETING OF  
JANUARY 16, 1978 BY THE FOLLOWING VOTE, TO-WIT:

AYES: Commissioners Gillow, Donovan, Roeder, Snedecor and McCandliss.  
Noes: None.  
Abstain: None.  
Absent: Commissioners Klein and Hastings.

ATTEST: *Angela Villegas*, Secretary  
City Boards and Commissions

JANUARY 17, 1978

January 17, 1978

TO: Planning Commission  
FROM: Safety Commission  
SUBJECT: EIR-78-2 (El Rancho del Rey) and EIR-78-5 (Casa del Rey)

The Safety Commission concurs with the conditions and provisions of the El Rancho del Rey environmental impact report, subject to review of future precise plans for the development of El Rancho del Rey as they are submitted. It is recommended that "Figure 5-3c...street network" be seriously considered (copy attached).

The Safety Commission concurs with the conditions and provisions of the Casa del Rey environmental impact report and further, that the signalization of the intersection of Paseo Ladera and Telegraph Road be installed and operational not later than the completion date of the last unit of this project "by funds from whatever source".

ESA:av

COMMENTS PREPARED BY ERNEST S. ARNOLD, MEMBER/SAFETY COMMISSION

COMMENTS RATIFIED AT SAFETY COMMISSION SPECIAL MEETING OF JANUARY 11, 1978 BY THE FOLLOWING VOTE, TO-WIT:

AYES: Commissioners Ventura, Knight, Arnold, Evans, Graves and Painter.  
Noes: None.  
Abstain: None.  
Absent: Commissioner Attaway.

ATTEST: Angela Villanueva, Secretary  
City Boards and Commissions

JANUARY 17, 1978

Attachment: Figure 5-3c

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

24 MISSION GORGE ROAD, SUITE 205  
SAN DIEGO, CALIFORNIA 92120  
TELEPHONE: (714) 286-5114



December 9, 1978

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

Attention: Mr. Douglas Reid

Gentlemen:

Re: EIR-78-2 El Rancho de Rey (Proposed revisions to  
community plan)

We have reviewed the subject EIR and have no comments.

Thank you for the opportunity to review this document.

Very truly yours,

ARTHUR L. COE  
Senior Engineer

RECEIVED

BY \_\_\_\_\_

JAN 11 1978

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

Testimony presented in public hearing before the  
City Planning Commission on February 1, 1978  
concerning Environmental Impact Report EIR-78-2

Watry

My name is Peter Watry, and I live at 81 Second Avenue. First of all, before I begin some comments, may I make an observation I made and several of my acquaintances made--for those of us who read the previous EIR's on this subject, there is a remarkable change. It doesn't try to cover things up and it doesn't just ignore a lot of problems, so it's a remarkable document to those of us who are used to some other types of documents. The quality is much different.

But, there's a couple of things I might bring up. On page 62 and 63, or 61 and 62, it's talking about the water situation. Where's my quotation-- here it is, on page 63 it says, The Otay Municipal Water District anticipates that water from the Metropolitan Water District via the Colorado River will serve future domestic needs to Chula Vista area. And that's all. I think, I've become recently aware of some startling facts about water in Southern California, and I recently had the opportunity to visit and tour the Colorado River aqueduct, and there's some things here that aren't up to date.

As you may know, Southern California has three sources of water. There's an aqueduct from Owens Valley to Los Angeles and that aqueduct is now going at full speed and the courts have said they can pump no more. They cannot increase their flow. There's another aqueduct from the Colorado River which is now working at full capacity as long as the engines don't break down, but in a matter of four or five years, we lose half that water to Arizona. There is also an aqueduct, the California Aqueduct, from northern California. Right now it's shut down because of the drought in northern California. Assuming that the drought in California all goes away--I'm not sure the people understand the problems with the California Aqueduct. Even assuming that the drought in northern California went away, there are still two huge hurdles to using the--before the water from northern California will be able to replace the Colorado River water which we will lose in five or six years. There's two things about it. My first source of knowledge is Lloyd Lee, the Director of the South Bay Irrigation District, he's also the Director of the Metropolitan Water District. He points out that in order to use the expected capacity of the system from northern California they would have to build the peripheral canal up in the delta area of central California, which as you may know is a very hotly debated political item, and if that, for instance, were not built, then it would be impossible to ever pump into southern California, even assuming that there's no drought, they still could not physically pump in the water that they anticipated because of that peripheral canal. Secondly, if the peripheral canal was built, it still wouldn't be possible to pump in the water because the pumping station at the Edmondson plant that pumps the water over the Tehachapi Mountains-- I'll give you some figures I learned today--that Edmondson plant, to work full speed like it's supposed to, uses, or develops 1,134,000 horsepower, which didn't mean much to me until I found out that that one plant takes 14 times the horsepower that any of the plants on the Colorado River aqueduct take. It's a gigantic operation, and right now it's shut down, of course, but before it was shut down, I understand, it could only operate on week ends and late at night because there wasn't enough electricity in southern California to run that plant. That when that pumping station was built it was anticipated that its source of energy would be a nuclear energy product, project in Wasco, the San Joaquin Nuclear Energy Plant in Wasco, which I've never heard of, but some place near there. So, even

Matry

if the peripheral canal was built, they still could not pump the water, the full amount to southern California to replace the Colorado River water, unless that nuclear energy plant were built. As I understand it, P.G. & E. has not even applied for that plant yet. So my understanding is, that assuming that everything went fine, the drought went away, they built the peripheral canal and the nuclear energy plant was built, it would still be decades before the northern California river project could replace the water that Arizona would be getting from us in a few years. And if everything doesn't go right, if any of those three, the drought, the peripheral canal, or the nuclear energy plant, if one of those three does not come to fruition, that means southern California, for dire straits for the next couple of decades. Somewhere I think that ought to be addressed, and not just assume that there's no water problem. It is very unlikely, in fact, that we will have as much water the next couple of decades as we now have. So, it seems to me the environmental impact report ought to reflect that whole situation.

Just a question, I guess, on page 70, it points out that in this environmental impact report they are not following exactly the provisions of the Planned Community ordinance as it's normally done. The proposed amendments do not contain the regrading plan or provisions for erosion control, the amendments do not address anticipated employment of fullest commercial precinct, or methods of limiting the noise, odor, dust generated, etc., and it says, you know, they're important, beyond the scope of this plan, and then it says, It is therefore the intent of the City administration to propose legislation which would delete the subject detailed requirements from the P-C zonal regulations. I understand all of that. My question is can you adopt a plan, an EIR, before they change the code. That the procedure is not now according to the zoning code and can this procedure continue until the zoning code is changed to permit it.

On page 72, item 3, it comments that the development of the--the progress of development would be from west to east. And all of the plans we have ever had, they have all said that and I've never understood it; it seems obvious that it's developed from east to west. I don't understand why the EIR says, or is it correct to keep on saying that the development shall progress from west to east, when it is developing from east to west, and it would seem like that's the logical way it would continue to develop. I may be wrong. Shouldn't the EIR reflect this, or shouldn't the EIR reflect that in spite of what has occurred, it's going to be different in the future. They've all said this, everyone seems to ignore what's really happening, and it seems to me the EIR ought to reflect what has happened, or explain what has happened isn't what's going to continue to happen.

On page 73, number 6, it says, the City of Chula Vista's adoption of a developer initiated comprehensive plan for the provision of water and sewer service to El Rancho del Rey shall be prerequisite to the further substantial growth and development of the subject district. My question is what does the word "prerequisite" mean, and what does the word "further substantial growth and development" mean. That isn't at all clear. Is that a binding thing, and is one house further substantial growth, or, it seems to me it's an important provision and it's not clear at all in the EIR what that means.

Watry On page 74 and 75, it talks about the fact that the urban design and townscape planning, different types of housing and so on, shall be governed by the Design Manual of the City of Chula Vista. And my question is, how does the Design Manual correlate with the Cooke, some of the recommendations that the Sedway/Cooke plan made. You know, the Council hired a consultant to discuss some of these factors to develop this area, and he had many recommendations, some of which were unusual to southern Californians. My question is, on some of the options and recommendations that he proposed, would our Design Manual, is there a conflict in our Design Manual that seems to limit that in some of his recommendations.

Chandler I would think that if the Design Manual is not in accord with something Sedway/Cooke recommended and we decided to do what they did versus the other, then the Design Manual would probably be revised accordingly. Right, Jim? Is that a good statement, or not?

Peterson Yes, I think so. The Design Manual really addresses itself more to architectural treatment and site planning, rather than to the kinds of concerns that Sedway/Cooke addressed. So I don't think there's a conflict there, but perhaps it does need to be explained in more detail than we have.

Watry Again, that was the thought. Is there, are there any alternatives that he might have suggested that would be in conflict with the Design Manual, and if so, I think the EIR ought to address that point.

On page 75, under principles, it has this statement, that the land use pattern, the circulatory system and the open space of El Rancho del Rey should be consistent with the suburban order of the Telegraph Canyon and Bonita-Sunnyside communities. When I think of Bonita-Sunnyside community I get an image in my head; I don't understand what the Telegraph Canyon communities means, unless it means the new houses being built, and I don't understand, are the Telegraph Canyon communities and the Bonita-Sunnyside communities the same, and if they aren't, which one prevails?

On the very bottom of page 75 and top of page 76, it's talking about grading and so forth, and the last sentence says, it must be recognized that the rugged terrain confronting developers cannot accommodate urbanization on an economic basis in the absence of substantial regrading. Again, it seems to me, that I'm not sure that's consistent with some of Cooke's recommendations. It seems to me the Cooke report says that some development can be accomplished without substantial grading, discovering different methods of road construction and housing sites. Once again, Mr. Cooke had some recommendations or suggestions and things that we don't normally do in southern California, and that this sentence says we cannot do. . . . For instance, building a road in a hillside area, it's not necessary to have both lanes at the same grade. And it seems to me that's a pretty powerful sentence. Not that Cooke's recommendation is what we ought to adopt, it just seems to me in the EIR it's a pretty powerful sentence.

Back on pages 123 and 124 it talks about schools. In the EIR they give some estimates that they are assuming this development will generate almost 2900 elementary school children, 1800 junior high school children and 1200 high school children. So besides the obvious question of what happened to all of those kids--it's a huge drop out rate--that's one question that arises,

Watry: what happens to those numbers. Anyway, those figures would generate about five elementary schools, one to two junior high schools, and one high school. I think that recent experience might indicate that those rates may be almost backwards. As I understand it, the recent experience in the Bonita area, I know when Bonita homes were being built at a rather rapid pace in the last few years, the elementary school got all braced for a big crush of kids and they never came. It never came because it turned out that those homes were relatively expensive homes and young families could not buy in there, they were being bought by families, older families with older kids, and the crush came in the junior high and high school, not the elementary schools. If those figures are somewhat backwards it would make a significant difference in the economic impact. The point is that if the development generates more older students than anticipated, that means less elementary schools needed but more high schools and junior high schools, and high schools take a much bigger plot of land than an elementary school did, would. Trying to set another 10 or 15 acre site for another high school in this particular area, rugged topography, could have significant environmental effects in terms of grading, road network, drainage, residences and so forth. So I think the old guidelines about how many children of various ages as developments occur will be significantly different in this development. This development, by its very nature of cost of development, cost of grading, aside from the housing itself, it's very likely to have some very expensive homes. They can't help but be expensive. Such development generates a lot more high school kids than elementary kids. I think that problem ought to be addressed and I would be interested, I haven't heard any figures on the homes along Telegraph Canyon, but I'm sure the figures in Bonita could be checked, and I think that indicates that more expensive homes generate older children and it's a significant difference in what kind of schools are necessary.

Smith: Mr. Watry mentioned 15 or 20 acres for a high school. I believe all the high schools around here are much larger than that, most sites 40 acres.

Watry: That large? Trying to fit in a 40 acre site in this terrain is going to be much more difficult and would make some significant changes in your analysis of environmental impact. So I think we ought to be aware of the fact that the figures may be backward.

Another problem that affects environmental changes, but that is ignored by the EIR and should be addressed, is the possibility that the school districts in the area may make an effort toward integration. I'm on one of the school boards, we're at some very preliminary stages and I want to be very careful what I say. We're receiving public input, as you are, and I can't say anything that might lead anyone to guess what way we might go, because we don't know. But everybody knows that both districts are now in the process of considering whether or not to move in that direction. In the high school district it's still at the citizens committee level; in our district it's moved on to the board level, and we're still having trouble, but the point is that both districts are now facing the issue of whether or not we ought to move in the direction of integration. If any move is made toward integration, no matter what method is used, it's obviously going to involve the movement of students to schools other than the neighborhood schools, and that's going to create a significant economic or environmental impact. Any movement toward integration will have a very significant effect on El Rancho del Rey because the topography of the land dictates all major roads go east and west with hardly any connecting roads north and south. The east

atry west legs of Rice Canyon dictates that east west patterns of homes rather than a typical checkboard pattern. Thus significant environmental impacts affecting the number, the type and the direction of having to transport students on a road network may change the assumed traffic flow and may affect greatly the whole concept of how and where schools are built. Instead of building five neighborhood elementary schools, for instance, it may end up being one very large elementary school site in order to get, the larger the area you draw from the better chance you have for balance involvement. We have two schools already, where instead of two elementary schools we made the whole boundary take in both elementary schools, one for the lower grades and one for the upper grades. By doing that we had a better balance, racially, than we otherwise would have had. So it may be in order to try--I'm getting out of the area--not that we're going to do this--but one suggestion that suggests itself is that instead of five schools, it could be one big site and in this rough area instead of keeping an eye to where the neighborhoods are to build your schools you may build them where the road networks are to facilitate transportation. One cannot say, or what can one say when one is trying to be careful. There is not question, the thing I started to say, it's not just a one in a million chance that either one or both districts might move toward integration. It's a stronger chance than that, I won't say how much less than one in a million, but anyway, if they do that's going to make a very significant difference in this particular development, and that problem should not just be ignored. It's obvious as I read the plan and I read the EIR that the people writing these things assume neighborhood schools, and that may change quickly and drastically, or at least, quickly. So, again, these possibilities are being totally ignored in the EIR and they should be addressed.

Some statements on page 130--I won't try to find them--anyway, some statements on page 132 and 133 about the--I'd better find them--about natural gas. It says, oh, the top of 133, San Diego Gas & Electric Company anticipates no unusual problem in supplying domestic natural gas service to residents of El Rancho del Rey. That statement assumes an unlimited infinite supply of natural gas, it seems to me, but the evidence seems quite clear that in fact natural gas may be the first of our major sources of energy to either become depleted or become prohibitively expensive and the EIR should certainly address itself to the impact of this eventuality.

Pages 138 to 142 discuss traffic flows. The traffic figures in the EIR, unless I've missed them, do not show the impact of the development on streets outside the development. It shows the road network within the development. If this plan comes to fruition, what will be the impact on "H" Street west of I-805? What will be the time delay on "H" Street at Hilltop, or Third Avenue? What will be the environmental impact of traffic generated by the development on the existing East "J" Street? Will people be able to back out of their driveways? Will there be no significant impact? It seems to me the EIR ought to address itself to that. What about Otay Lakes Road, Bonita Road? These are all clear environmental impacts on the citizens of Chula Vista if the EIR ignores them; I think they should be addressed.

On page 142, it's mentioned about bus service, or transit service, and it says, Since transit service is established according to demand . . . the key term is according to demand. Historically in southern California,

maybe everywhere, bus service was established according to demand. The demand was there, somebody made a bus service, it was and it wasn't. Now the Sedway/Cooke report points out that given the nature of just a few major east west roads the opportunity exists to have a really meaningful public transit service, using "H" Street as the backbone of the community, Southwestern College to Rohr. The Cooke study speaks of transit corridors, exclusive bus lanes, feeder routes and special pick up points in the commercial areas as well as elsewhere. This kind of transit service could, in time, significantly change the estimated environmental impacts of traffic, pollution, and so forth, but to achieve this successfully would take much more than "according to demand" attitude. A more aggressive attitude toward encouraging more efficient transportation would alter the environmental impact. Again the impact of this alternative is not addressed in the EIR and I think it should be. Thank you.

Skinner Mr. Chairman, I'm Harlan Skinner, I live at 4234 Lynwood Drive, Bonita. Lynwood Drive is a County road, it's a fairly quiet country road at the present time, and personally, I would not like to see it used as an access road for this proposed development. We're quite happy the way that is now and if it were necessary to use it, in talking to your City Engineer, it would need to be widened some and it's a rather dangerous road with curves where we are and if they try to widen it that will take some land away, and we feel that it would be a very unhappy situation for us to be merged in that traffic, the north and south traffic, as mentioned by the man in his plan. I just listened to him carefully and, Mr. Desrochers, we have no desire to become one of the endangered species due to traffic on that road.

Chandler That is Mr. Reid. Mr. Desrochers moved back four rows to get out of the flak after the first two items.

Skinner Okay, from where I sit back there, you can't tell. I appreciate the chance to mention that. We have lived there about thirty years and we would be very unhappy to see it change just for someone's proposed development, which we don't think will benefit very many people. Thank you.

Fairman I'm James Fairman, I'm President of Project Design Consultants, a planning, engineering and environmental analysis firm at 610 A Street in San Diego. I'm here making a few comments on behalf of El Rancho del Rey, major owners of property in the area. I have some prepared comments on the EIR which I can distribute and I won't attempt to speak to the various items involved, a lot of them are technical. I just would like to summarize a few points in connection with the draft EIR.

One, and perhaps a significant point that I think the staff recognizes, the draft EIR does not contain the latest version of the General Development Plan. We're in atune with that and the draft EIR will have to be revised to reflect that.

The second point we'd make is that the draft EIR analyses are based on dwelling unit/population/school children generation projections that are probably unattainable. In the General Development Plan there is an indication that the density ranges that are indicated on the General

Fairman

Plan are, the tops of those ranges are maximums, and it's fairly clear that the City Council and Planning Commission need not approve development up to that maximum. Therefore, most of the numbers you're getting in terms of generating traffic, air quality, emissions, this sort of thing, are maximum, worst case, conditions.

The third point is that the plan indicates that plan amendments are calculated to provide the developers with sufficient economic incentive to build residential, commercial areas, roads, community infrastructure, and there is no description in the EIR of those incentives or an analysis of their impact.

The fourth point, while the plan strongly infers that the north leg of Rice Canyon would be acquired, developed and maintained as a public open space there are no analyses within the draft EIR to indicate that impact in the section dealing with community tax structure. We would agree, to a certain extent, with Mr. Watry, that the schools' impact section probably overstates the generation of students that could be expected from the development, and we think there ought to be, like Mr. Watry, some verification of the actual generation rate coming out of various areas akin to what would be developed in El Rancho del Rey.

We don't feel that the traffic impact section adequately addresses the effect of the plan's proposed traffic system, and we believe, contrary to Mr. Watry, I guess--we are in some mono amono with him but we don't believe that the potential for transit service has been adequately addressed. We think that there would be minimal opportunity for transit service, except along "H" Street, that many of the areas within the plan are too low density to accommodate, without enormous subsidy, bus service.

We, this is the next last one, we believe that the EIR does not adequately address social factors in terms of the plan being developed. Running throughout the EIR are some comparisons to the existing plan for El Rancho del Rey and indications that impacts would be lessened due to the proposed development plan because of lesser population and everything that goes with that population. However, we feel that there are some trade-offs involved here and the EIR does not adequately address what the social costs of reduced density will be in terms of housing supply, housing costs in terms of the market, the demand, the need out in the community.

Finally, we think that a number of items related to city and school cost/revenues require a little recasting. For example, the draft EIR indicated in toting up potential revenues that the retail center would have a value of about \$3,700,000, in terms of generating property tax. It's probably going to be closer to 35 million. Now, a fairly gross mistake. We think that in terms of cost/revenue side of it, in terms of the City of Chula Vista, that a more realistic annual gain to the City would be \$900,000, after you, after staff takes a look at this, rather than the 200 and some thousand that was indicated. In terms of schools, we would point out that revenue should exceed, on an annual basis, exclusive of capital costs, something like three million a year based on a new look at those pupil generation factors.

I appreciate your time, I'll distribute these written comments, be glad to respond in any way.

Lynch Mr. Chairman and Commissioners, my name is Reva Lynch. I live at 626 Date Avenue, Chula Vista. You surprised me by making a statement that you had my written statement. I prepared that statement for you to follow along with as I read mine, and although my statement refers to impact the same as the EIR and the GDP, I would like to read by statement.

(Statement read by Reva Lynch.)

Watry I have a friend who is working tonight and he asked me to read a brief statement which I have. It's on behalf of Eugene Coleman, who lives at 1670 Gotham Street, Chula Vista, and is addressed to the Planning Commission.

(Read statement signed by Eugene V. Coleman)

Gathe My name is Fred Gathe, and I live at 3242 Lynwood Drive, which is up above Dr. Nelson's pine patch. Most of you are familiar with Dr. Nelson's pine patch. This is our third year up there; we moved out there because of the relative peace and quiet. Mr. Chairman, I'd like to challenge your thinking tonight. We now have an environmental impact report, or soemthing like this. I don't understand all the inner workings of our great City of Chula Vista, nor any great city, for that matter. I'd like to challenge your thinking tonight to that New York City, back a hundred years ago, didn't have this thing that you have to play with tonight, and you know where New York City is today. Their open space is gone. I felt like saying hurray to this Mrs. Lynch who took up some time, and you may have heard that before on the previous report when Dr. Bloom was trying to improve the property-- I wasn't in on that, thank goodness, my blood pressure probably couldn't have stood it, but that's okay, I'm here tonight and I won't take up much of your time, but there are two or three things I would like to mention.

The noise factor, for one thing. Unfortunately, we moved there before the freeway opened and it was beautiful. You can't imagine--I would like to invite everyone of you to come out to my place some time for a lawn party. There won't be any drinks, we're just going to listen to the traffic, okay. And I mean it sincerely, just to the present traffic flow, and then your environmental impact report does not address Lynwood Drive as a feeder road but your blueprint does, and I came down here and paid \$2.50 of Uncle Sam's money to get that blueprint. Unfortunately, I'm told that the Environmental Impact Report, the letter pertaining therto was not sent out to anyone who lived more than 300 feet from the boundary. I talked to some of my neighbors and they were quite shocked. It's all right, I'm not picking on your tonight; you do what you have to do. But I have a neighbor who didn't get it but she couldn't get it--she moved away because she didn't like the noise of the highway, 805, when it opened. You put 16,000 people up there on that hill and you're going to have a noise factor that--I happen to live in a cement block home which is pretty well insulated, and that's one thing I'd like to address tonight. In the Environmental Impact Report it talks about setbacks, it talks about insulation, and these raise building costs. I used to be a carpenter, for a few years in the Navy, and I know a little about building, not a lot, just enough to be dangerous. But, be that as it may, when you

Gathe raise the cost by insulating those homes, it in turn raises our taxes. The tax assessor he looks at those and says, well, I can't help it, Mr. Gathe, the property across the street from you sold for this much, so my taxes will go up, and they'll have increased insulation and setbacks which I am paying for, and naturally, I'm against that.

Okay, you've been invited to the yard party, any time, you name it. If you come up about two or three o'clock in the morning it'll be beautiful up there because the traffic flow has died way down, but it starts about five o'clock in the morning and it continues. And we can't stop that, that's there. I hope in time trees or something will be planted along that freeway. I understand Dr. Nelson was willing to donate some--I don't know for sure, that's just verbal. Okay.

Another thing I'd like to address and I think this is probably going to be the last one. What consideration has been given to National City's Environmental Impact Report. Now, I know you draw a line, because there is National City and you're Chula Vista, or we're Chula Vista. But National City must have had an environmental impact report for Kyle Morgan's whatever it is out there that took out that beautiful lighted golf course, and there's going to be a lot of smog generated by that. There's going to be a lot of noise factor generated by that, and that's only about three-quarters of a mile, a mile, I think, at the outside, from the north boundary of what you gentlemen and ladies are considering here tonight, and will be considering in the future.

And, last but not least, I appreciate the fact that you listen to the taxpayers and I hope you listen well, because I have other property in another state with sufficient acreage that I could move away from your community if I so have to do, because of the noise factors, but the offer for any one or all of you in group, any time you choose. I'll give you my phone number--it's an unlisted one, but you're welcome to it. I'm not going to give it to you because of your tape recorder, but I will give it to you privately and you're welcome to call me any time and make an appointment so I'll be sure and be there and we'll talk about it. Bring your little--I don't know if it's yours or not--but the City has noise recording equipment; I'd like to have it up there some time so you could get a real feel for what people, and we pay pretty high taxes up on that hill just because we live in a so-called relatively non-urban community. I don't know the exact term, but we're kinda country folks up there, and I'm just an old country boy at heart, and I feel for Mr. Skinner, because the road that's projected cuts down pretty well through his place, and that noise factor, even just from the freeway, and this is going to be closer yet, and I would propose, if you have to agree with this and go through with it, certainly consideration be given that that feeder road that now comes out of the project on that north boundary be diverted back down to within the project and let it go down to 805 and let 805 take it down to Bonita Road, and at least bypass that. Which, incidentally, the environmental impact report in no way addresses, not in any one of the diagrams--I went through it, I even went to the trouble of xeroxing copies which cost me a few dollars, so I have your whole environmental impact report. Not one of those diagrams shows that road going through there, not one, only the blueprint, and I think that should have been addressed in the environmental impact report. In fact, and this is the end, gentlemen, you can relax, the environmental impact report deliberately, in my opinion, in no way addresses Lynwood Drive as a feeder road and yet the blueprint shows it. It's at least cutting across

Gathe Lynwood Drive. Thank you for your time.

Watrous I'm Margery Watrous and I'm on Holly Way, also a neighbor of Mr. Gathe, and I would only very quickly say I affirm what he has said. We not only have noise pollution something terrible, but you notice a great deal of difference in washing the windows and all of that soot since the freeway opened, and to put that access road any closer to us really is going to be pretty horrible to contend with. Not only that, but we do have a really light pollution. The cars, the traffic, and we don't have that freeway right at us either. But, to put, if that access road is put any closer, it really is going to cause quite a light pollution as well. Thank you.

Beauchamp My name is Mitchell Beauchamp, I reside at 1843 East 16th Street, National City. I speak here on behalf of the California Native Plant Society regarding the botanical aspects of this report. There are several deletions--one deletion and several quotes here that we would like to have modified.

First the deletion, the plant *Simmondsia chinensis* is mentioned in the document on page 38 only as a paleo endemic of the region. *Simmondsia chinensis* has been shown to have proven economic value; it supplies lubricating oil, high speed lubricating oil, and also melting, wax with a high melting point. This has potential economic use when the cost of fossil fuels increases. This is a renewable source of this oil. It is now being exploited by local mission Indian bands for economic basis on their tribes. There is currently a study by the University of California at Riverside concerning this *Simmondsia chinensis*, referred to as jojoba or goatnut. There are only two populations of this plant occurring on the coast, the rest of the plants occur in desert regions of California and Arizona. Because of this diversity of habitat occurring in Chula Vista area, and also in Del Mar at one location up the coast there, this plant represents a unique gene pool, or genetic makeup that could be drawn upon in the future to increase the productivity of the *Simmondsia*. Daily as I drive up Telegraph Canyon I see the areas being stripped clear of *Simmondsia* and I think that in the document there should be some indication for preservation of this *Simmondsia* population of this region. It is not a rare plant, but population represents a unique genetic pool resource which cannot be duplicated. It represents a genetic pool that's adapted to coastal climates and it cannot be duplicated, and so, in that respect, it is rare and its destruction, it is endangered.

Secondly, I would like to address two points. One on page 75, D 3, which states, Colonies of rare and endangered biological species should be protected or, where feasible, relocated to a protected environment. I would then further, bearing that in mind, direct you to page 31, a quote from the California Environmental Quality Act. The intent which is put forward here is that, in the first paragraph the latter part, that "insure that wild life, fish, and wild life populations do not drop below self perpetuating level and preserve for future generations representations of all plant and animal communities." Communities, not individual specimens. The California Native Plant Society is concerned that this attitude of transplantation for mitigation will eventually destroy all these species.

Beauchamp You cannot preserve a Redwood tree by digging it up and moving it somewhere else; it would probably die. By preserving the habitat of the plant you preserve it without economic liability to continue its growth. Transplanting cactus, last week, you had a project, Casa del Rey, which had an extremely unique collection of cactus on it, and one of the mitigations proposed with that was that the patch be transplanted. That patch will die if it's transplanted; it will not be of any scientific value.

Finally, I would address that two of these species are being proposed under the Federal Endangered Species Act. The EIR does mention that but it fails to go into the repercussions of this Act. I am sure you are very much aware of the implications of the Endangered Species Act regarding animal population within your city boundaries. Were it possible to transplant these rare birds, I'm sure that would have been done by now. Habitat preservation is the name of the game, and we would like to see habitat preservation concerned in this document, not digging up the plants to some place that's convenient. The plants are there, they must be preserved in site, too. Thank you, gentlemen.

EL RANCHO DEL REY  
DRAFT ENVIRONMENTAL IMPACT REPORT

COMMENTS

Following are comments by El Rancho del Rey concerning the Draft Environmental Impact Report for El Rancho del Rey (EIR-78-2) issued by the City of Chula Vista Environmental Review Committee on December 23, 1977.

3.3 Drainage Patterns (page 19, line 16)

Change Existing to Estimated 50 year.

4.1 Proposed Amendments to the General Development Plan and Schedule of the El Rancho del Rey Planned Community (pp 70 - 83).

There are a number of areas where the Draft EIR should be amended to reflect the latest version of the proposed General Development Plan text. Following are some of the Plan text and map revisions which have occurred since the Draft EIR was first issued:

1. The land use allocations have been revised in some categories.
2. Provisions related to the establishment of Sectional Planning Areas have been added.
3. Density "bonus" provisions have been eliminated.

A number of other text and map changes have also occurred. Obviously, the EIR should be appropriately modified to address the General Development Plan being proposed.

In a related area, it is difficult to relate the environmental impact analyses to the proposed General Development Plan because of the vagueness of numerous Plan proposals. Throughout the Draft EIR, analyses of specific issues (such as schools, community tax structure, traffic generation) are based on the maximum number of dwelling units and population that could be produced by the proposed General Development Plan. On the other hand, the text of the Plan indicates that "...the Planning Commission and City Council are under no obligation to approve plans at the top stop of any density range..." but, rather, will consider each development on an ad hoc basis. The point here is that the dwelling unit and population projections utilized for analysis will not probably be attained.

4.1 Introduction (page 71)

The General Development Plan text indicates that the proposed amendments are calculated "...to provide the developers of El Rancho del Rey area with sufficient economic incentive to build the residential areas, commercial precinct, roads, and infrastructure recommended... There are no analyses within the EIR to determine just what incentives

are contemplated and their potential impact on the community and City.

4.1 Statements of Policy, (Item 7, Page 73)

There is no analysis in the EIR regarding the impact of item 7, which indicates that the north leg of Rice Canyon is vital public open space. Since there is a strong inference that such area would be publicly acquired, developed, and maintained it would seem necessary to analyze the impact of such a proposal in 5.21 Community Tax Structure (pages 147 - 154).

4.1 Statement of Policy, (Item 9, Page 73)

While not a criticism of the EIR per se, it should be pointed out that the Plan text provision that any development proposal involving more than 50 acres (or 250 dwelling units) should include at least two housing types is inconsistent with proposals of the Plan map. Large areas (55% of all residential land) proposed for very low or low density housing are restricted to detached single family housing.

4.1 Statement of Policy, (Item 10, Page 74)

The statement that the bulk, height, parking, open space, and other pre-announced standards of the City of Chula Vista's zoning regulations shall apply within El Rancho del Rey is in direct conflict with the proposed P-C (Planned Community Zone) amendment. The P-C Zone was designed to permit flexibility in the planning and development of a largescale community. Establishment of traditional zoning regulations as minimums would be highly inappropriate in the P-C Zone.

5.4.1 Drainage Impact (Page 95)

The runoff figures are Fogg's estimate of ultimate 50 year runoff and not the increase over the numbers in Section 3.3. The increases are 534, 557, 1473 and 142 based on subtraction of the two numbers.

5.7.1 Air Quality Impact (Page 102)

It would appear physically and economically impossible to complete the commercial development and 1/3 of the residential land uses by 1980. We would suggest using an absorption of 1/3 of the commercial and 20% of the residential uses by 1980.

5.13.1 Schools Impact (Page 123)

The projected number of elementary, junior high and senior high students appears too high in terms of the projected area average household size and current demographic trends. The projections should be verified by data indicating actual generation factors for various housing types. We would estimate that more realistic projections would result in a maximum of 2,370 elementary students, 1,100 junior high students and 1,100 senior high school students at full development of El Rancho del Rey.

5.17.1 Sewer Impact (Page 130)

If both the present flow and the projected flow are based on the same generation factors, the increase in total City flow is 20% instead of 29%.

Based on the sewer design of 11 persons per acre the City paid for storage capacity for 25,894 persons, or approximately 9,182 dwelling units. This aspect of the economic impacts of urban sprawl proposed by the plan should be pointed out in this section.

5.19.3 Traffic Impact, Analysis of Significance (Page 142)

It seems appropriate to add the statement to this section that: "Alternative 'B' would, like Alternative 'A', create undesirable to unacceptable congestion at various points in the system"; and that Alternative 'C' would minimize circuitous travel routes for trips to and from the northeast section of the El Rancho del Rey area and thereby reduce vehicle miles traveled."

The transit service analysis should be amended to state that "... bus routes will be expanded to serve the higher intensity sectors of the project area as development proceeds". It does not appear that any useful level of bus service could be extended to the extensive low density areas (e.g. north of the north leg of Rice Canyon contemplated by the Plan).

5.20 Social Factors (Pages 144 and 145)

The impact analysis does not provide an adequate analysis of the effects of the staff-proposed Plan on housing costs and availability. The proposed plan provides for a substantially smaller allocation of housing than the currently adopted plan. A considerable area is proposed for low density housing despite relatively large open spaces and infrastructure typically geared to a higher density of development. It would appear appropriate to indicate the disparities between the projected housing mix and market demands (as well as the proposals of the City's Housing Element).

We would take sharp exception to the Mitigation section, which indicates that the proposed reduction in units and population would serve to mitigate impacts. While some impacts could be mitigated, others would be intensified due to a loss of housing units and an increase in housing costs.

The section also tends to slough off the responsibility for moderating housing costs on the developer. Federal and State subsidies are not readily available. It would appear more suitable to indicate that the City take a more responsive role in mitigating the problem through rent or loan subsidies of its own (possibly from community development block grant monies), the adoption of development standards that would allow less expensive housing, and other measures to deal with the problem of providing low-and moderate-income housing.

Table 5 - 10: City Revenues (Page 148)

The Assessed value of the retail center is grossly underestimated. It is closer to \$35,000,000 than the \$3,710,000 used.

Table 5 - 12: City Expenses (Page 150)

- c. A 20% increase in personnel will be accompanied by a 20% increase in population and a 24% increase in assessed valuation. The police cost per capita will be the same or lower.
- h. A 50% increase (or \$162,000 more per year) for fire protection does not appear realistic. Perhaps a review of service area and manpower needs would clarify this apparent discrepancy.

Table 5-13: Revenues and Expenses from El Rancho del Rey (Page 151)

Using more realistic figures for revenue and expense would show an annual gain of almost \$900,000, a significant positive cost/revenue impact.

Tables 5 - 15, 16: School District Cost/Revenue (Page 152)

More realistic student generation factors will result in revenue to the schools of about \$3,000,000 per year in excess of property related costs.

7.2 Existing General Plan (Page 159)

This section states that the higher population would "greatly top" the ability of urban support system, especially schools. An adequate number of schools are shown on that plan and would be provided in accordance with the same rules that the City plan is being revised by.

7.3 Lower Density/Hillside Design Techniques (Page 160)

It seems appropriate to complete the sentence which originally read: "The problem with this type of development guide for the entire planned community involves the marketability of a large number of housing types and the economic feasibility of providing the necessary on-site and off-site improvements at the lower density."

Mr. Chairman and Commissioners,

My name is Reva Lynch and I live at 626 Date Avenue, Chula Vista.

I believe that the remaining 235<sup>4</sup> acres of El Rancho del Rey should be left in open space for eventual public use.

I have reviewed the Draft Environmental Impact Report and the Text of the General Development Plan of El Rancho del Rey. The EIR contains statements of "unsupported generalities failing to convey any factual information".<sup>1</sup> I believe the EIR and the amendments to the General Development Plan clearly favor special interests, the developers. I believe both documents should be rewritten to benefit the people of Chula Vista and the surrounding area.

The reasons presented by the consultant, Sedway Cooke, in the Rice Canyon open space evaluation are sufficient to support the open space alternative for El Rancho del Rey. The consultant stated, in part: "The Rice Canyon site is unquestionably a valuable natural resource area. The relatively undisturbed native plant communities and their value as wildlife habitat constitute natural resources, preservation of which should be considered. Development on the site is constrained by the presence of these resources, as well as steep slopes, erosion problems, flooding and seismic hazard." And, further: "The entire site could be acquired for public use to protect unique natural conditions, provide for open space relief within the urbanizing area, and allow for outdoor recreation opportunities."

Briefly, here are some other constraints for developing El Rancho del Rey:

#### Adverse economic impacts

Except for two water storage tanks, there are no other structures in the area. No roads, no schools, no sewers. Needed urban services (fire, police, schools) could cause adverse economic impacts (tax increases) on the surrounding community. The Text of the GDP states on page 11, "The plan shall equitably spread costs among all who benefit by the construction including, as appropriate, the general public of the City".

#### Air pollution

This is a public health issue. Air pollution is worsening in our area. On September 6, 1977, the smog reading rose to 21 in Chula Vista. The days and hours exceeding standards in 1977 were 49 days, 166 hours; in 1976, 48 days, 129 hours; in 1975, 42 days

<sup>1</sup> In June 1977, Superior Judge David A. Thomas ruled that the environmental impact report (EIR) on which the plan (the Los Angeles General Plan) was based consisted of "no more than a sterile declamation of unsupported generalities almost entirely failing to convey any factual information." See Exhibit 1, att.

136 hours. I checked with the Air Pollution Control District and learned that they had reviewed the subject EIR and found it to be inadequate because of the following reasons:

- Report incomplete
- Failure to identify significant Environmental Impacts
- Inadequate Air Quality Analysis
- Inconsistencies in proposed amendments to the General plan
- Inconsistencies between mitigating measures for air quality and proposed amendments to the general plan.

In part, from their statement:

The section on Analysis of Significance (page 104) fails to identify the project area as a receptor of air pollutants from the adjacent urban area. The report should indicate that any future residents of the project area will be impacted by air pollutants such as ozone, and non-methane hydrocarbons from the Chula Vista urban area because of the prevailing westerly winds.

The assumption of fuel usage for electrical power at SDG&E is incorrect (page 102)

It is not clear in the report what stationary sources were considered in arriving at the data supplied in Table 5-2.

An inconsistency exists between Section III Features and Proposals of the Plan and Section II Goals, Objectives, Policies and Principles.

Another inconsistency in the EIR exists between the proposed mitigating measures for Air Quality and the proposed amendments to the General Development Plan (GDP). Specifically, one of the proposed mitigating measures for Air Quality is the use of bicycle trails to link areas of high use; while the proposed amendments to the GDP proposes a tortuous equestrian-hiking trail system. The GDP does not include a bicycle trail.

The inclusion of this tactic (RAQS Tactic T-7) in the projects General Development Plan is anticipated to reduce vehicle miles traveled and vehicle trips which in turn reduces vehicle related emissions. The failure to include Tactic T-7 in your General Development Plan would make the plan inconsistent with RAQS and therefore a significant environmental issue. See Exhibit 2.

Constraints, cont. Growth

The population for Chula Vista is presently 78,000. In 1985, it is forecast to be 97,100. In 1995, it is forecast to be 131,100 (CPO Series IV forecasts-revised, August 1977)

Leaving this natural resource in open space is an ideal growth-control measure.

Noise generation and major road building would impact surrounding urban and rural areas.

Energy - Site design and land use patterns would lock us into energy consumption patterns for decades.

1973 Open Space Element

This was mandated by the Government Code Section 65302 (e) of the State of California. Compliance should follow. The objectives of this element provide reasons for preserving the open space of the whole El Rancho del Rey area.

1973 and 1975 Public referenda and voter rejection.

Not all voters voted just against the Bloom plan--many voted against the plan hoping to keep the area in open space.

1975 Kaplan Poll - Some of the questions

- 4) 56% of those polled indicated it was "very important" to preserve open space in Chula Vista, such as farmland and land in its natural state.
- 5) 54% indicated "Yes" when asked: If the only way in which open space can be preserved is by purchase, would you be willing to pay \$15 a year more in taxes so that this could be done.

Consider this: 20,000 families in Chula Vista at \$15 a piece equals \$300,000 per year. Assume a 20-year bond at 6%, what the present value is, is \$3,500,000.

- 6) 25% indicated purchase of property by City for permanent open space, one of six alternatives and the one receiving the highest rating. The six alternatives referred to the project Plaza del Rey.
- 14) 43% of those surveyed indicated that if they had a choice, the population of Chula Vista in 1990 would be 75,000, the population of Chula Vista at the time of the survey in 1975.

Housing

The FDP, p. 2, 6. The provision of affordable housing, where such is practicable. The catch, "where such is practicable". Also, p. 7, 6. The land use plan of El Rancho del Rey should, where feasible, utilize the cluster, townhouse.... The catch, where feasible. I agree with the Chula Vista Elementary board trustees'

concern about the negative effect this housing development will have on integration.

There are other constraints.

The EIR is based on a population of 16,209, 5755 dwelling units, and 1282 acres. Already, the GDP has changed that. Now, the population is 16,389 (plus 181); the number of dwelling units is 5821 (plus 66); 6 acres of open space has already been lost to 6 more acres of development.

In Chula Vista, we are blessed with a natural landscape and water front and marvelous climate. Why destroy any of it? Keeping El Rancho del Rey in open space will lend diversity to our landscape. Open space is a diminishing resource and should be preserved in this area. El Rancho del Rey, undeveloped, lends individual character and identity to our neighborhood, and enhances our quality of life.

In 1970, there had been no Petaluma decision. That didn't happen until August 1975. Now, the City under that decision can control growth. The EIR and the GDP do not have to be written in favor of developers. I think your primary interest should be the public interest.

I urge you to reject the General Development Plan for El Rancho del Rey.

### 5.1.3 Analysis of Significance

As discussed in the preceding subsections,

page 88

proper planning, design and construction can, for the most part, alleviate the potential for seismic damage. As in virtually all portions of Southern California, the El Rancho del Rey property is subject to seismic impacts. In spite of the site's location astride the La Nacion fault system, economically viable engineering subdivision design and construction techniques are available to reduce seismic risk to an acceptable level.

No detailed design studies have been conducted on facilities for the other drainage basins. However, standard subdivision and water course permit process will insure the provision of adequate facilities to accommodate the ultimate runoff from the project.

95

### 5.5.2 Mitigation

page 98

Treatment of urban runoff to reduce urban pollutants is costly and frequently ineffective. A more realistic approach toward mitigating this problem is to adopt a rigid program of clean-up techniques. The pollution due to street surface contaminants, for instance, can be significantly reduced by proper street cleaning operations.



# AIR POLLUTION CONTROL DISTRICT

COUNTY OF SAN DIEGO

EXHIBIT 2

WILLIAM SIMMONS  
Air Pollution  
Control Officer

9150 Chesapeake Drive  
San Diego, Calif. 92123  
(714) 565-5901 (MS 0176)

January 20, 1978

Douglas Reid  
Environmental Review Coordinator  
Chula Vista Planning Department  
P.O. Box 1087  
Chula Vista, CA 92012

SUBJECT: El Rancho del Rey - Draft Environmental Impact Report

After reviewing the above referenced Environmental Impact Report (EIR), the Air Pollution Control District finds the EIR to be inadequate because of the following reasons:

- . Report incomplete
- . Failure to identify significant Environmental Impacts
- . Inadequate Air Quality Analysis
- . Inconsistencies in proposed amendments to the general plan
- . Inconsistencies between mitigating measures for air quality and proposed amendments to the general plan.

Section 4.2, Land Use Plan on Page 83 of the EIR is blank. If this section is to be omitted, the section number and title should be eliminated from the report. On the other hand, if this section was supposed to be incorporated in the EIR, it is obviously missing and the report is incomplete.

The section on Analysis of Significance (page 104) fails to identify the project area as a receptor of air pollutants from the adjacent urban area. The report should indicate that any future residents of the project area will be impacted by air pollutants such as ozone, and non-methane hydrocarbons from the Chula Vista urban area because of the prevailing westerly winds.

The assumption of fuel usage for electrical power at SDG&E is incorrect (page 102). According to data supplied by SDG&E, to the District, approximately 75% of the fuel used at the South Bay Power Plant is low sulfur fossil fuel. The 38% figure assumed in the report is unrealistic for calculating pollution emissions for stationary sources.

It is not clear in the report what stationary sources were considered in arriving at the data supplied in Table 5-2. The emission factors used to calculate the pollution emissions from mobil and stationary sources needs to be included in the EIR for review purposes. The source of the emission factors should be referenced.

An inconsistency exists between Section III Features and Proposals of the Plan and Section II Goals, Objectives, Policies and Principles. Specifically, the statement in Section III-B page 79 states:

The General Development Plan also provides adequate areas for local, community, and regional shopping facilities and services.

while in Section II-D-12 page 78 states:

Staff, however, feels that this center (El Rancho del Rey's) might promote the decline of the Chula Vista's shopping center, and is of the opinion that Chula Vista's increasing regional shopping center needs be met by the extensive expansion of the Chula Vista/Sears shopping complex.

While the GDP provides adequate land for a regional shopping center, it is doubtful if the land will be utilized for that purpose if staff recommends against it.

Another inconsistency in the EIR exists between the proposed mitigating measures for Air Quality and the proposed amendments to the General Development Plan (GDP). Specifically, one of the proposed mitigating measures for Air Quality is the use of bicycle trails to link areas of high use; while the proposed amendments to the GDP proposes a tortuous equestrian-hiking trail system. The GDP does not include a bicycle trail.

Your Agency, through CPO, has previously approved the San Diego Air Basin Regional Air Quality Strategies (RAQS). The RAQS Tactic T-7 Maximum Bicycle System envisions

". . . A major expansion of bicycle facilities including: the Adopted Regional Bicycle Route System, Community Oriented Routes, Bicycle Feeder Systems to Public Transit, possible employer incentives and includes facilities. Such facilities include theft resistant racks, connections with express bus service, showers, and locker rooms."

project  
Douglas Reid  
Environmental Review Coordinator

January 20, 1978

- 3 -

The inclusion of this tactic in the projects General Development Plan is anticipated to reduce vehicle miles traveled and vehicle trips which in turn reduces vehicle related emissions. The failure to include Tactic T-7 in your General Development Plan would make the plan inconsistent with RAQS and therefore a significant environmental issue.

If you have any questions, please call me at 565-5904.

Sincerely,



RAYMOND L. WEEKS  
Environmental Management Specialist

RLW:jlw

cc: Phil Wondra, EPA  
William C. Lockett, ARB

February 1st, 1978

Chairman, Planning Commission  
City of Chula Vista

Dear Sir,

The following comments relative to the Draft Environmental Impact Report EIR-78-2, El Rancho Del Rey, are submitted for your consideration.

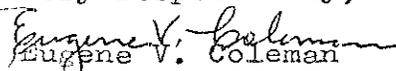
A. Section 3.14.3 Water: The long term contracts for imported water for the San Diego County Water Authority (CWA) are actually for 597,997 acre feet, not 600,000 as stated in the draft EIR. This error of 2,003 acre feet may not seem significant but it represents 46% of the stated requirements of El Rancho Del Rey (4,380 acre feet annually, or 4,135,215 gallons per day). It becomes more significant when related to actual water entitlement. The Otay Municipal Water District (OMWD), as a member agency of CWA, has an ~~annual~~<sup>annual</sup> entitlement of 1.69% of the water delivered under contract to CWA by the Metropolitan Water District of Southern California (MWD). When CWA receives its full entitlement from MWD, the 1.69% allocated to Otay Municipal equates to 10,140 acre feet annually. In fiscal year 1976, Otay Municipal delivered 12,927.2 acre feet to its customers, or 2.15% of the CWA allocation. Obviously, Otay Municipal Water District is "living on borrowed water."

It is recommended that before any other consideration is given to Draft EIR-78-2, a representative of Otay Municipal Water District be required to appear before this Commission with written assurances that water will be available to serve the needs of El Rancho Del Rey when development is complete.

B. Section 3.14.4 Sewers: Sewage from El Rancho Del Rey will be pumped to the Metropolitan Sewage Treatment Plant on Point Loma. The design capacity of that treatment plant, as expanded, is 120 million gallons per day. The plant is currently operating at maximum capacity. Any additional sewage flow can be accommodated only with inadequate treatment, and will be discharged through the ocean outfall in a partially raw state.

It is recommended that representatives from the Regional Water Quality Control Board, and the San Diego County Department of Sanitation and Flood Control be requested to appear before this Commission with assurances that capacity exists for ADEQUATE treatment of the additional flow.

Very respectfully,

  
Eugene V. Coleman  
1670 Gotham Street,  
Chula Vista, Ca. 92010

## 13.0 Response to Comments on Draft EIR

### 13.1 Written Comments

#### Otay Municipal Water District

The major issue raised by the Otay Municipal Water Dist. involved the provision of transmission facilities to serve the project. Substantial development at the western end of the project will require the extension of a main feeder line down East H St. This line will, if East H St. is not extended at the same time, require installation along the alignment and at the grade of the proposed East H St. extension. The text of the final EIR has been expanded to clarify this point.

#### Air Pollution Control District

Sec. 4.2, Land Use Plan, page 83. This page should reference the Land Use Plan which is too large to be included with the document itself but is attached to the back of this report. A more specific reference has been added to this section.

Analysis of significance, page 104. The Draft EIR shows the dispersion of pollutants on Fig. 3-3, page 25. The increasing levels of pollution as the distance from the coast increases shows that generally the inland areas are the recipients of pollution from the urbanized areas. A summary of this finding has been included in Sec. 5.7.3 of the final EIR.

Power plant fuel usage, page 102. This assumption of fuel usage was intended to indicate that 38% of the electricity consumed in 1980 would be generated by fossil fuel generating facilities using primarily low sulfur fuel (75%). The calculations did use the same assumptions as specified in the comments from the APCD and the text has been modified in the final EIR to reflect the proper assumption. The generation factors used throughout the document, both mobile and stationary, are those specified in the Environmental Protection Agency publication "Compilation of Air Pollution Emission Factors, Second Edition, and various supplements."

Bicycle Trails, page 80. The text of the General Development plan which was included in the draft EIR was a preliminary copy of the amendments which has now been revised to include a discussion of bicycle trails to conform not only with the San Diego Air Basin Regional Air Quality Strategies (RAQS) Tactic T-7, but also with the Bike Route Element of the City of Chula Vista General Plan.

#### Environmental Control Commission

No response necessary

#### Calif. Regional Water Quality Control Board

No response necessary.

13.2 Testimony at the public hearing of February 1, 1978

Peter Watry

Dr. Watry stated that the EIR said "The Otay Municipal Water District anticipates that water from the Metropolitan Water District via the Colorado River will serve the future domestic needs to the Chula Vista area." "And thats all." This statement is out of context as a quote from the draft EIR and in no way representative of comments from the report. Many of the statements by Dr. Watry are similar to those in the Draft EIR.

The Owens Valley facility has not yet been approved for increased pumping but the statement that they cannot pump any more water is not correct. The agency must however, prepare an adequate EIR prior to the authorization of such an increase.

The notation that water rights will be shifted to Arizona is correct and that fact is in the EIR. The text has been modified in this regard to more clearly differentiate between the ability to provide water and the ability to provide facilities to transport the water.

It should be noted however, that the Arizona rights to the Colorado River water will not be exercised until completion of the Central Arizona project. The estimated completion date for that project is 1990 and possibly later. It is therefore highly probable that Colorado Water will be available throughout the next decade.

The purpose of the peripheral canal is to transmit the Northern California water through (by) the Sacramento Delta. Currently water enters the delta from the north flows through the area and is recovered from the southern segment of the delta. When there is low water flow in the Sacramento River the water which is introduced into the delta flows westerly rather than southerly and cannot be recovered. The peripheral canal would carry the water to the south and avoid this problem. Thus the system can work in non drought periods but would work better and more reliably with the canal.

The report notes the higher energy requirements (and therefore increased cost) to obtain water from the California Aqueduct. It is not necessary for the Edmondson plant to operate 24 hours a day to keep downstream storage facilities full and it is more economical to run the pump station at off peak hours. The proposed San Joaquin Nuclear Generating Plant is not proposed only to provide power for the Edmondson facility, it will be part of a larger interconnected power system. As power demands increase throughout the state, it will become increasingly difficult to provide power to large facilities such as this without an increase in generating capacity.

As is noted in the EIR, the Southern Calif. area is semi arid

and it will become increasingly difficult and costly to provide water to an increasing population.

At this point in the public hearing there was several questions and comments on the proposed General Development Plan not on the EIR itself, and no response is necessary in this document.

There is no "hugh drop out rate" shown in the estimated students generated by the project. The report shows that 2900 elementary students (grades 1-6) would result and 3000 secondary (grades 7-12) would be generated.

The building activities in the Bonita area have not only resulted in the secondary schools operating over capacity, but also the elementary schools are now crowded. Sunnyside Elementary School has a capacity of 616 students, while the January 13, 1978 enrollment was 677, Allen Elementary School has a capacity of 336 and a current enrollment of 387, Valley Vista Elementary School has a capacity of 420 and a Feb. 2, 1978 attendance of 474.

The school student generation factors, school site location and size were all previously coordinated with the school districts. A check was made with the districts again and the validity of the information was confirmed. There is therefore no need for a second high school site within this project area.

Also see Engineering Memo dated February 15, 1978 attached.

The statement that SDG&E does not anticipate any unusual problems in providing natural gas for this project is correct. The problems associated with future supply of natural gas and/or the cost of this energy source are common to the entire county and are not specific to this project alone. There are no other unusual problems associated with provided domestic natural gas to this project area.

Harlan Skinner

No significant environmental issues were raised during this testimony. Also see attached Engineering Memo dated Feb. 15, 1978.

James Fairman

(The references in this section correspond to the notations in the written comments which Mr. Fairman summarized at the public hearing.)

3.3 This change as been made.

4.1 The latest version of the General Development Plan Text and Land Use Plan has been included in the final EIR. Many of the comments on this section are not relevant to the latest version of the text or are not comments on the EIR itself. It should be noted however, that the City does not intend to use City funds to acquire the main leg (north leg) of Rice Canyon although development and maintenance would be financed through a combination of open space maintenance districts and City developmand and maintenance of other facilities. Sec. 5.21 has been modified to reflect this additional cost.

5.4.1 This change has been made

5.7.1 The consideration of the estimated development schedule for air quality impact analysis was based on a worst case condition. If development does not take place in accordance with the schedule the analysis can be revised in supplements to this document. But in the absence of any firm development schedule from the applicant, the worst case condition must be the basis for the analysis.

5.13.1 The generation factors used in estimating the number of students projected from this development were provided by the school districts and have now been re-confirmed as reasonable estimations for planning purposes.

5.17.1 See Engineering Memo dated February 15, 1978. attached. This is not the section of the report which discusses urban sprawl, the effects are discussed in Sec. 10.0.

5.19.3 See Engineering Memo dated February 15, 1978 attached.

5.20 The proposed reduction in the number of housing units and population for this area is in conformance with the Series IV forecast of the CPO Regional Plan. Therefore the impact on overall housing availability in the region would be insignificant because the number of dwelling units in this area would be coordinated with population projections.

Theoretically, housing costs should generally rise if the density is reduced. However the density proposed in this plan are in conformance with development in adjacent areas of El Rancho del Rey and other projects. Therefore this development plan may not represent a real reduction in density but a more realistic appraisal of the development constraints inherent to the site such as the inaccessability of the northern section of the project area.

Because the reduced population levels proposed in the plan are proposed in the recognition of the environmental constraints (resources and hazards) in the project area, the project is an alternative which reduces the effects of a larger population increase and is a mitigating factor in the development of the site. Although there are fewer housing units than in the previous plans for the project site, the densities and number of dwelling units is in conformance with other developments in the area and with the Regional Plan & population forecasts.

This section of the report does not "slough off" the responsibility for low and moderate cost housing on the developer. The City is pursuing such a proposal and has a proposition for the April City election ballot to proceed with such a proposal. The City has adopted development standards to allow smaller houses on smaller lots and other measures such as the Planned Community Zone itself to encourage lower cost housing. Developers have not used this tool to provide such a product.

5.21 -Table 5-10. This change was made in the final EIR.

5.21,-Table 5-12. The police costs will be slightly higher due to increased beat length and other factors in serving a lower density project.

The costs of providing initial capital facilities to provide fire protection for the project will be substantial in that a new fire station, equipment and personel will be required. The figure in the EIR is at the completion of the project as years pass and capital facilties are paid for the cost per person will be more in line with the City wide average.

5.12 -Table 5-13 The revisions noted above would result in an increase in estimated revenues from the draft EIR. But because the estimated expenses as noted above have remained the same the net annual gain is only slightly higher.

5.12-Table 5.15-16. The generation factors have been re-confirmed with the school districts and are accurate.

7.2 The emphasis in this section was on the ability of the school districts to provide facilities to serve this project

not show the sites for schools on a plan. The more school children that are generated the more difficult it will be to provide educational services.

7.3 This modification was made.

Reva Lynch

Sec. 7.1 on page 158 of the EIR contains the non-development alternative to the project as proposed.

As provided in Sec. 15147 of the State EIR Guidelines, (Cal. Admin. Code), the degree of specificity required in an EIR should correspond to the degree of specificity in the underlying activity. In the case of this project, no detailed design work on such features as the drainage system, grading plan, have been made part of the General Development Plan. Therefore, it is not feasible to evaluate the potential impacts of these facilities and/or potential environmental changes.

The General Development Plan as proposed in the EIR has been repeatedly opposed by the developer. An indication that the Plan and EIR were formulated in favor of the developer, is not the case.

While there are costs involved in the development of the subject property, the income from the project would offset the costs. See Sec. 5.21 (pg. 147) of the EIR for details of this analysis.

See the response to comments from the APCD (Sec. 13.1) for a response to the comments from Ms. Lynch.

The remaining comments from Ms. Lynch were not relevant to the EIR but to the project and opinions on the project.

Eugene V. Coleman

The water contract amount was changed per this comment.

Written input from Otay Municipal Water Dist. was provided and they indicated no problem in serving the project.

The problems with the Metropolitan Sewage Treatment Plan and its capacity are noted in the EIR. A "no comment" letter from the Regional Water Quality Control Board has been received and is included in the final EIR.

Fred Gathe

The existing noise measurements are provided in Sec. 3.7 of the EIR. They show the noise level in the Lynwood Hills area as  $58 \frac{+1}{-3}$  L<sub>10</sub> dB(a) and the most prominent noise source was traffic as indicated by Mr. Gathe.

The noise insulation as commented on are standard development regulations and would not raise the costs higher than normal development in a high noise area.

See Engineering Memo dated February 15, 1978 attached.

Margery Watrous

See the above response to the comments from Mr. Gathe.

Mitchell Beauchamp

Modifications were made in the report regarding *Simmonsia chinensis* have been made reflecting this testimony.

It is the intent of the principal regarding rare and endangered species (page 75, D.3) that the primary method of mitigation would be protection of the colonies (i.e., habitat) and that if that were not feasible due to some overriding consideration that transplantation would be considered if it were biologically possible.

None of the species of flora or fauna are on the Federal Endangered Species Act list at this time.

Reid

February 15, 1978  
File No. HY003

TO: Doug Reid, Environmental Review Coordinator  
VIA: John Lippitt, Assistant Director of Public Works *JPL*  
FROM: Gary Hansen, Traffic Engineer *GKH*  
SUBJECT: Response to Testimony Taken at Planning Commission Meeting on February 1, 1978, Regarding El Rancho del Rey EIR

Per your request, I have taken a look at the comments regarding traffic that were expressed at the Planning Commission Meeting on the first of February. In reviewing the text of the comments at that meeting, I have identified the following concerns:

1. On page 5 of the text, Peter Watry was concerned about traffic flows with particular attention to the impact of this development on "H" Street west of I-805. The traffic on "H" Street west of I-805 was not discussed in the EIR for several reasons. The action that the EIR is addressing is the modification of the development plan from the 1970 plan.
  - A. There is a considerable reduction in the amount of dwelling units and commercial activity that is proposed under the new plan than under the original plan. Therefore, the potential impact on "H" Street of this plan is greatly reduced from the potential impact on "H" Street of the 1970 plan.
  - B. Two factors not yet solidified will impact the traffic on "H" Street including (i) construction of Route 54 freeway between I-5 and I-805, (ii) the split in shopping trips between the Chula Vista Shopping Center on "H" Street and the proposed Bonita Shopping Center at the intersection of Route 54 freeway and I-805.
  - C. City staff has been working on a computerized system of traffic projections for the entire City using the area west of I-805 and the proposed general plan designations for that portion east of I-805. To date, we are not satisfied with the results of that portion west of I-805 and, at this point we are uncertain if it is possible to accurately calculate the impact of any development east of I-805 on the portion west of I-805.

In answer to Mr. Watry's concern, however, the EIR could be modified to indicate that the development would have the effect of increasing traffic volumes on "H" Street west of I-805. Due to the anticipated traffic volume growth on "H" Street without the proposed project, plus the additional traffic growth due to the proposed project, it is possible that some day "H" Street may have enough traffic to require six lanes.

Volumes shown on East "J" Street as a result of the project are approximately 4-6,000 ADT. These volumes added into the existing traffic on "J" Street will create volumes on this street of approximately 10,000 ADT. Peter Watry asked if the people will be able to back out of their driveways and my only conclusions are that since they back out of their driveways on "L" Street with 18-20,000 ADT, they shouldn't have any problems backing out of their driveways on "J" Street with half that volume.

2. On page 6, Mr. Skinner, who lives on Lynwood Drive, expresses concern that the EIR neglects to mention the impact onto Lynwood Drive. It should be pointed out that the EIR traffic section focused its attention on the main streets within and adjacent to the El Rancho del Rey area. All along it has been felt that Lynwood Drive might be a secondary connection which would primarily serve those residences in the extreme northwest corner of the project and also provide access to the proposed shopping center from the existing residences along Lynwood Drive. In no case was the assumption made that more than an additional 500 to 1,000 ADT would be generated on Lynwood Drive. I agree with Mr. Skinner that the existing alignment would possibly need some work, that is, the installation of guard rails, more lights, etc. The dimly lit, rather winding road that presently exists could cause traffic hazards and probably does. However, I feel that any drastic realignment of the street, or widening would not be necessary from trips generated by this project. The attractiveness of using "H" Street to gain access to Chula Vista and I-805 will outweigh any mass desire of the residents to use Lynwood Drive for access to Bonita Road and I-805. A final note on this comment should be that I feel the preliminary plan presented for the 450 acres shows a circulation system which is intended to discourage vehicles from using Lynwood Drive. We shouldn't have any trouble in developing a circulation system east of I-805 adjacent to "H" Street which will accomplish this task. The connection of Lynwood Drive, it should also be mentioned, provides a secondary access for emergency vehicles into the area.
3. Comment number 3 is on page 7, and is made by Jim Fairman of Project Design Consultants. In the text, he simply states that he doesn't feel the traffic impact section adequately assesses the effect of the plans for the proposed

traffic system. Well, that comment is so vague that it is impossible to make any further explanation which will satisfy Mr. Fairman. I note in his written comments he would like to add a paragraph which makes a comparison of alternatives A and B versus C. I have read his written comment and I agree. The addition of his proposed paragraph would help clarify the traffic impact sections.

4. Comment number four is on the bottom of page 9, and was a comment by Mr. Gathe. His concern also was regarding Lynwood Drive. I would refer this comment to my previous discussion.
5. Mrs. Watrous, on page ten, is also concerned about Lynwood Drive. See above.

GRH:ph

AIR QUALITY UPDATE  
for  
ENVIRONMENTAL IMPACT REPORT

EL RANCHO DEL REY  
EIR 78-2  
AIR QUALITY UPDATE  
(Replacement Pages)  
Revised October, 1979

ISSUED FOR REVIEW BY THE  
CHULA VISTA  
ENVIRONMENTAL REVIEW COMMITTEE

November 8, 1979

PREPARED FOR THE CITY OF CHULA VISTA

by

ADVANCE PLANNING & RESEARCH ASSOCIATES  
3420 Kenyon Street - Suite 214  
San Diego, California 92110

that while prevailing directions and speeds may be fairly constant in coastal areas, greater extremes may occur farther inland. An exception to the moderate, prevailing westerly winds is the easterly Santa Ana winds, generally seen in late summer and early fall, bringing with them dry air, high temperatures, and concurrent fire hazards.

### 3.6 Air Quality (Revised October, 1979)

-----

The climatic conditions have influenced the air quality of the projects region in that they result in a low mixing height from the ground to the inversion layer, low wind speed for horizontal mixing, little rain and a great deal of sunlight. A study of these conditions by the Environmental Protection Agency showed that the atmospheric conditions which would most frequently contribute to adverse air quality occurred at San Diego and Santa Monica more commonly than throughout the remainder of the Continental United States.

The project site lies within the San Diego Regional Air Basin and the San Diego County Air Pollution Control District (SDAPCD) which maintains eight monitoring stations throughout the

basin. Data from the Chula Vista monitoring station on East J Street is felt to be most indicative of air quality conditions at the project site. This assumption is based upon the fact that the prevailing westerly to northwesterly wind pattern carries the air mass from Chula Vista in the general direction of the project prior to any significant opportunity for dispersion of pollutants or the crossing of topographic barriers which might accelerate mixing of air mass.

Table 3-3 presents pertinent data relating to pollutant levels likely to exist at the project site. Figure 3-4 delineates isoplots for the number of days the Federal oxidant standard (8ppm) was exceeded in 1977.

TABLE 3.3  
EXISTING AIR QUALITY

Pollutant (Standard)	Number of Days Federal Standards Exceeded					
	1973	1974	1975	1976	1977	1978
Oxidant (.08 ppm - 1 hour average)	60	41	42	48	52	51
(.12 ppm - 1 hour average)	--	4	6	7	13	7***
CO (9 ppm - 8 hour average)*	5	4	0	0	0	0
SO <sub>2</sub> (.14 ppm - 24 hour average)*	0	0	0	0	0	0
Non-Methane HC (.24 ppm - 3 hour average)	312	298	138	294	311	232
NO <sub>2</sub> (.25 ppm - 1 hour average)**	0	1	0	0	2	0
TSP (% Samples 100 ug/m <sup>3</sup> )	--	27	10	10	2	0

\* Chula Vista data not available 1973-74, San Diego Downtown data was used.

\*\* State of California Standard, no Federal Standards available.

\*\*\* Based on new Federal Standard for Oxidants of .12 ppm as of February 1979.

OXIDANT  
 NUMBER OF DAYS WITH MAXIMUM HOURLY  
 AVERAGE LEVELS ABOVE 8 PPHM

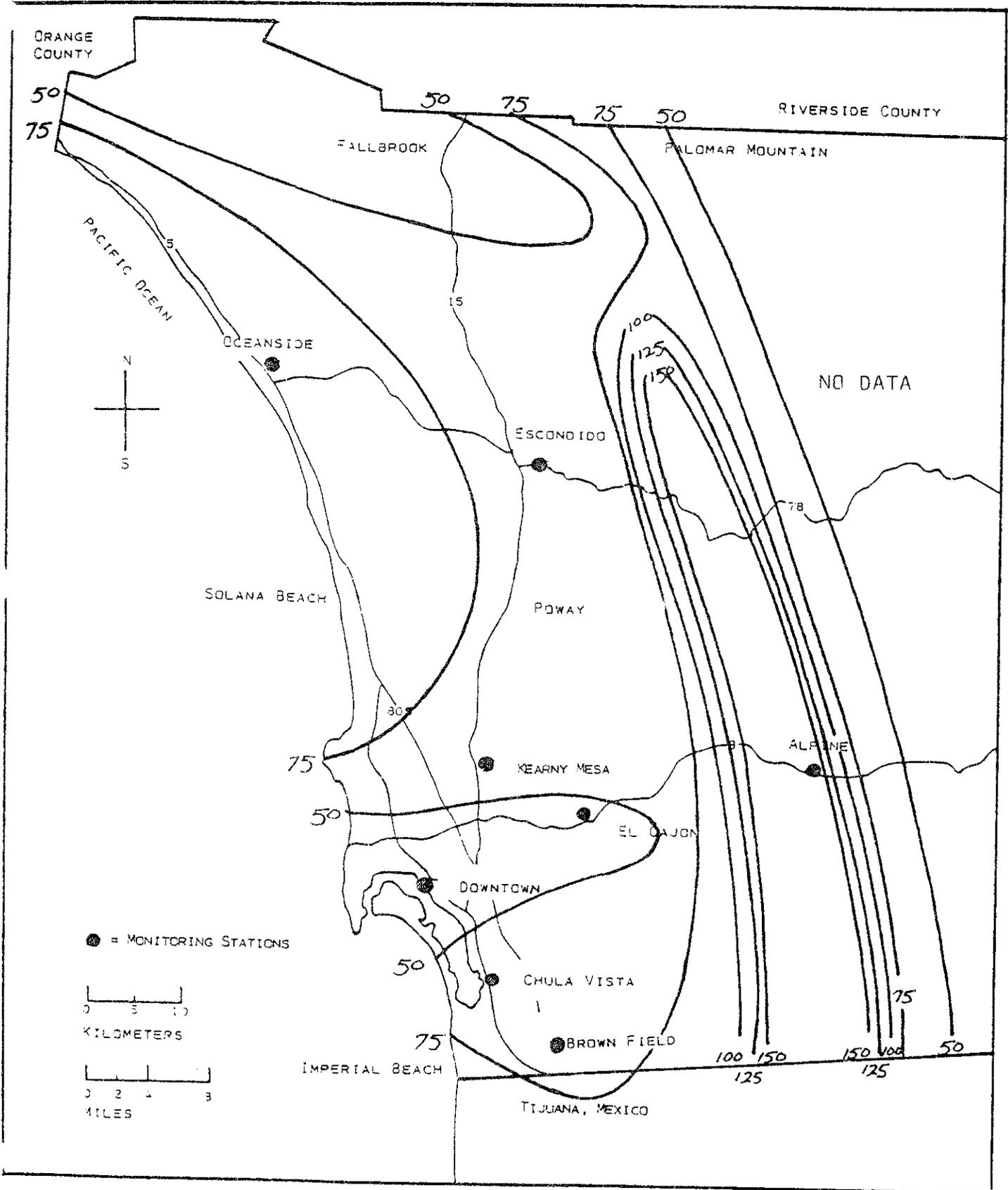


Figure 3-4. Isopleth of Federal Oxidant Standard (1977).

5.7 Air Quality  
-----

5.7.1 Impact  
-----

The quality of local and regional air cells will be incrementally (cumulatively) degraded as a result of the proposed project. The sources which will contribute to this include construction activity; vehicular traffic; the use of fireplaces; the consumption of energy (electricity and natural gas) and the modification of on-site photosynthetic patterns.

The predominant localized impact on air quality of the project will be introduction of dust and particulate matter from the construction process. Grading activity, which will generate dust and fumes during road construction and the preparation of building sites, will be a major contributor. Additionally, the movement of construction vehicles over dirt roads and construction sites, as well as temporarily exposed graded areas will create a further source of dust, albeit of a short-term nature.

Regional air quality will be affected primarily through motor vehicle emissions. The following data has served as a background for air quality emission estimates:

- \* Total number of trip ends (any vehicle movement from one point to another) per day: 95,600
- \* The length of each trip was assumed to be as follows:

Residential	-	6 miles
Retail Comm.	-	5 miles

Recreational Comm.	-	5 miles
Neighborhood Comm.	-	2 miles
Schools	-	6 miles
Average	-	4.8 miles

\* Because no overall development schedule is available, the buildout and completion dates are not known. The following assumptions are made:

- The commercial development and 1/3 of the residential land uses will be completed by 1985.
- Two-thirds of the project will be complete by 1990.
- The project will be completed by 1995.
- It is assumed that 75% of the electrical power supplied by SDG&E will be produced by fossil fuels, assuming continued use of low sulphur fossil fuels.

Based on these assumptions, Table 5-1 delineates the pollution emitted from mobile sources (vehicles) associated with the project. Based on the same assumptions, Tables 5-2 and 5-3 delineate the pollution emitted from stationary sources associated with the project.

Table 5-4 is a comparison of the relationship of all pollutant emissions from the overall project to the total of 1977 emissions for the San Diego Air Basin, as a whole. As can be seen, the completed project represents an additional source of pollutants and will contribute to the cumulative adverse effect on air quality in the basin.

TABLE 5-1

## ESTIMATED EMISSIONS FROM MOBILE (VEHICLE) SOURCES (1995)

Pollutant	Emission Factors		
	Grams/Mile	Grams/Trip	Tons Per Year
Carbon Monoxide	6.5	45.4	2,946.0
Hydrocarbons	0.46	6.7	343.0
Nitrogen Oxides	2.3	1.2	471.0
Particulates	0.25	---	46.0
Sulphur Oxides	0.13	---	24.0
		T O T A L :	3,830.0

-----

BASIS: 95,600 vehicular trip ends per day, 4.8 miles average trip length per trip, 458,800 vehicle miles traveled per day in 1995. Vehicle population mix emission factors per San Diego APCD (for 1995 vehicles at 45 miles average speed).

TABLE 5-2

EMISSIONS FROM STATIONARY SOURCES (DOMESTIC HEATING AND  
RESIDENTIAL FIREPLACE) IN PROJECT AREA (1995)

<u>Pollutant</u>	<u>Domestic Heating (Tons/Year)</u>	<u>Fireplace (Tons/Year)</u>	<u>Total Tons/Year</u>
Total Suspended Particulates (TSP)	2.0	59.4	61.4
Sulphur Dioxide (SO <sub>2</sub> )	0.12	356.4	357.0
Carbon Monoxide (CO)	4.0	15.0	19.0
Nitrous Oxides (NO <sub>x</sub> )	20.0	3.0	23.0
		T O T A L :	460.4

-----  
BASIS: Projected 6,000 dwelling units consuming 348,000 therms/  
month. Emission factors per San Diego APCD (1978).

TABLE 5-3

EMISSIONS RESULTING FROM STATIONARY SOURCE  
POWER PLANT EMISSIONS (1995)

---

<u>Pollutant</u>	<u>Tons Per Year</u>
Total Suspended Particulates (TSP)	14.4
Sulphur Dioxide (SO <sub>2</sub> )	2,307.0
Carbon Monoxide (CO)	7.2
Nitrous Oxides (NO <sub>x</sub> )	52.0
	<hr/>
T O T A L :	2,381.0

-----  
BASIS: 3,500,000 kwh/month total electricity usage. Emission factors per San Diego APCD (1978).

TABLE 5-4

TOTAL ESTIMATED INCREMENTAL INCREASE IN EMISSIONS

ALL SOURCES

(ton/day)

Pollutant	San Diego Air Basin (tons/day)*	Proposed Development (Estimated 1995 emissions)		Incremental Increase Relative to San Diego Air Basin (Percent)
		Stationary (tons/day)	Mobile Total (tons/day)	
Carbon Monoxide	1049.85	0.07	8.1	0.78%
Reactive Hydrocarbons	292.35	0	0.9	0.31%
Nitrogen Oxides	190.36	0.21	1.3	0.79%
Particulates	490.11	0.21	0.1	0.06%
Oxides of Sulfur	40.97	7.3	0.07	18.1%

BASIS: \* (Revised 1974 Emissions Inventory for S.D. Air Basin (1977)).

## 5.7.2 Mitigation Measures

The following measures would serve to reduce the extent of air quality degradation due to implementation of the proposed project.

### COUNTRYWIDE MEASURES

Air quality management in San Diego County is the responsibility of Air Pollution Control District (APCD) and the Comprehensive Planning Organization (CPO). These organizations have combined their efforts in a task force called the Air Quality Planning Team. In 1976, the San Diego Air Quality Planning Team published Regional Air Quality Strategies (RAQS) for the San Diego Air Basin. The adopted RAQS are integral to the air quality management plan for San Diego County.

### PROJECT-LEVEL MEASURES

#### A. General Measures and General Plan Actions

1. Projects should be laid out in a manner which facilitates transit access, walking and bicycle trips as a substitute for motor vehicle trips.

2. Cluster firms together, using a site design that would provide concentrations of employees for transit and ridesharing;

strengthen central business district employment base.

3. Designate official transit and ridesharing pick-up stations in activity centers to provide convenience and notoriety for users. Stations should be safe and comfortable, and include shelters and benches.

4. Reduce commercial and industrial parking requirements for developers who commit to the operation of ridesharing programs and/or provide transit and bicycle facilities. Restrict on-street parking near those projects, as appropriate.

5. Shopping centers - Cluster stores together with a common parking lot to eliminate the need for driving from one store to another.

6. Give development preference in developing growth management programs to projects which are near transit routes or where future routes are planned. Discourage development where transit is not available. Include transit in list of development point analysis.

7. Transit operators should be requested to comment on projects for their transit compatibility and make statements as to whether transit is available to the project or not.

B. Transit Measures - Developers and Local Jurisdiction Staffs

1. Design the physical layout of development to facilitate the use of transit.

(a) Streets should be designed to allow buses to maneuver easily.

(b) Long cul-de-sacs should be avoided.

(c) Street pavements should be designed to accommodate buses.

2. Layout commercial and industrial projects so that transit riders do not have to cross large parking lots to get to where they are going. Also, route buses through shopping centers.

C. Ridesharing Measures

1. Provide preferential parking for carpools and vanpools.

2. Charge all employees for parking, except those who rideshare.

3. Appoint a ridesharing coordinator for carpools, vanpools and/or subscription uses.

4. Encourage all employees to become members of Commuter Computer.

5. Permit staggered work hours for carpoolers.

D. Bicycling Measures

1. Provide bicycle lanes in large developments to connect residential areas with employment, shopping, schools, and transit and ridesharing pick-up stations.

2. Provide secure, convenient bicycle storage facilities at all employment, shopping, schools, ridesharing pick-up area and selected transit stops.

3. Provide lockers and showers in all new office, commercial, and institutional buildings with more than 100 employees (e.g., ordinance such as in the City of Palo Alto).

4. Eliminate bicycle hazards and barriers, where feasible. Such hazards include, but are not limited to: storm sewer grates parallel to the roadway, insufficient roadway width, glass and debris in the bicyclist's path, dangerous intersections, steep grades and non-continuous routes.

E. Walking Measures

1. Provide safe pedestrian paths in large developments to connect residential areas with employment, shopping and schools.
2. Provide access paths through cul-de-sacs where they would allow shorter walks to activity centers.
3. Where appropriate, install push-buttons on stop lights to activate a "walk" light.
4. Where it would not restrict traffic flow, install stop light systems at appropriate intersections which stop all vehicle traffic and allow pedestrians to walk diagonally across intersections as well as at right angles. In addition, this would help buses to make right hand turns.
5. Designate auto free streets on a permanent or intermittant regular basis (e.g., every Sunday, or during the lunch hour).
6. Shopping malls should be free of vehicles at certain hours.

## 5.7 Analysis of Significance

Full development of El Rancho del Rey Revised General Development Plan would constitute an incremental contribution to the degradation of regional air quality.

As is shown on Figure 3-4 (pg.25a), this, and other inland areas, are the recipients of air pollutants from more westerly locations, due to the prevailing winds. Among these pollutants are ozone and non-methane hydrocarbons. Development of a project to provide similar dwelling and service facilities at a different location would probably have similar air quality impacts, depending on the location.

FINAL  
ENVIRONMENTAL IMPACT REPORT

EIR-78-2A

East H Street Extension

Prepared by

The City of Chula Vista  
Planning Department  
Environmental Review Section

Issued by the  
Environmental Review Committee  
August 20, 1981

Certified by the  
Chula Vista Planning Commission  
October 7, 1981

## TABLE OF CONTENTS

	<u>page no.</u>
1.0 Introduction	A
1.1 Purpose	A
1.2 Executive Summary	A
2.0 Project Description	1
2.1 Location	1
2.2 Street Improvements	1
2.3 Grading	1
2.4 Water Pipeline	1
3.0 Environmental Impact Analysis	7
3.1 Biology	7
3.2 Geology/Soils	20
3.3 Archaeology	27
3.4 Paleontology	28
3.5 Drainage	33
3.6 Land Form	39
4.0 Significant Environmental Effects which cannot be avoided if the project is implemented.	40
5.0 Alternatives to the Proposed Project.	40
6.0 Growth Inducing Impacts of the proposed project.	40
7.0 Effects found to be Insignificant	40

Appendices are on file and available for review in the Planning Dept.

- A. Biology
- B. Archaeological
- C. Paleontological

### Figures

1. Locator Map - USGS	2
2. Locator Map - El Rancho del Rey Specific Plan	3
3. East H Street Cross Section	4

TABLE OF CONTENTS (Cont.)

page no.

Figures (Cont.)

4.	Improvement & Grading Plans	Sheet 1	5
5.	Improvement & Grading Plans	Sheet 2	6
6.	Legend for Vegetation Maps		14
7.	West Borrow Site Vegetation - Sensitive Plants		15
8.	East Borrow Site Vegetation - Sensitive Plants		16
9.	East H Street Vegetation Map	Sheet 1	17
10.	East H Street Vegetation Map	Sheet 2	18
11.	East H Street Vegetation Map	Sheet 3	19
12.	Geological Map	Sheet 1	24
13.	Geological Map	Sheet 2	25
14.	Simplified Geologic Cross Section along the proposed right-of-way		26
15.	Rice Canyon Drainage Basin		35
16.	Generalized Drainage Pattern	Sheet 1	36
17.	Generalized Drainage Pattern	Sheet 2	37
18.	Peak Flow Runoff Volumes		38

## EIR-81-5

## East H Street Extension

1.0 Introduction1.1 Purpose

The purpose of this Environmental Impact Report (EIR) is to address the environmental effects of the proposed extension of East H Street within the El Rancho del Rey Specific Plan area. This EIR is a supplement to the EIR which was prepared on the El Rancho Del Rey Specific Plan (EIR-75-2). This EIR addresses those site specific impacts which could not be addressed in the previous EIR because of lack of specificity.

This report has been prepared in accordance with the State of California EIR Guidelines, the California Environmental Quality Act and the Environmental Procedures of the City of Chula Vista. This report is intended to disclose the significant environmental impacts of the project, how those effects can be mitigated and evaluate alternatives to the project as proposed. It is not the purpose of this document to make any recommendations regarding the project, instead it is intended to be informational in nature, disclosing adverse environmental effects and describing solutions to those problems. This report is not an engineering document.

1.2 Executive Summary

The project would provide the initial extension of East H St. through the El Rancho del Rey Specific Plan area to complete the link from I-805 easterly to Otay Lakes Rd. The project would include the necessary grading, operation of a borrow site, two travel lanes and the installation of utilities including a 16" water transmission main by Otay Water District. The project would be jointly financed by the City, Otay Water District and several property owners developing projects in the vicinity of the proposed street extension.

The project has the potential to significantly impact biological and paleontological resources and could result in aesthetic impacts due to land form alteration. Mitigation measures can reduce biological and paleontological impacts to a level of insignificance. The aesthetic impacts of land form alteration will be significant. These effects are unavoidable due to constraints of existing street alignments, and elevations and the topography of the site.

## 2.0 Project Description

### 2.1 Location

The project site is located within the El Rancho del Rey Specific Development Plan area between I-805 and Southwestern College and between Telegraph Canyon Rd. and the Sweetwater Valley. Specifically, it is within and adjacent to the East H Street right-of-way as shown on the El Rancho del Rey Specific Plan, from the Rice Canyon Sectional Planning Area to the current East H Street terminus to the west of Otay Lakes Rd. (See Fig. 1 & 2 Locator maps)

### 2.2 Street Improvements

The proposed street improvements would be located in the southerly portion of the future East H Street right-of-way adjacent to the southern right-of-way line. There would be an eight foot shoulder, a concrete curb and gutter, AC and base, a redwood header and a 6 foot shoulder. Two travel lanes would be provided. (See Fig. 3) There would be various drainage improvements to protect the street improvements. (See Fig. 4 & 5 Improvement and Grading Plans)

### 2.3 Grading

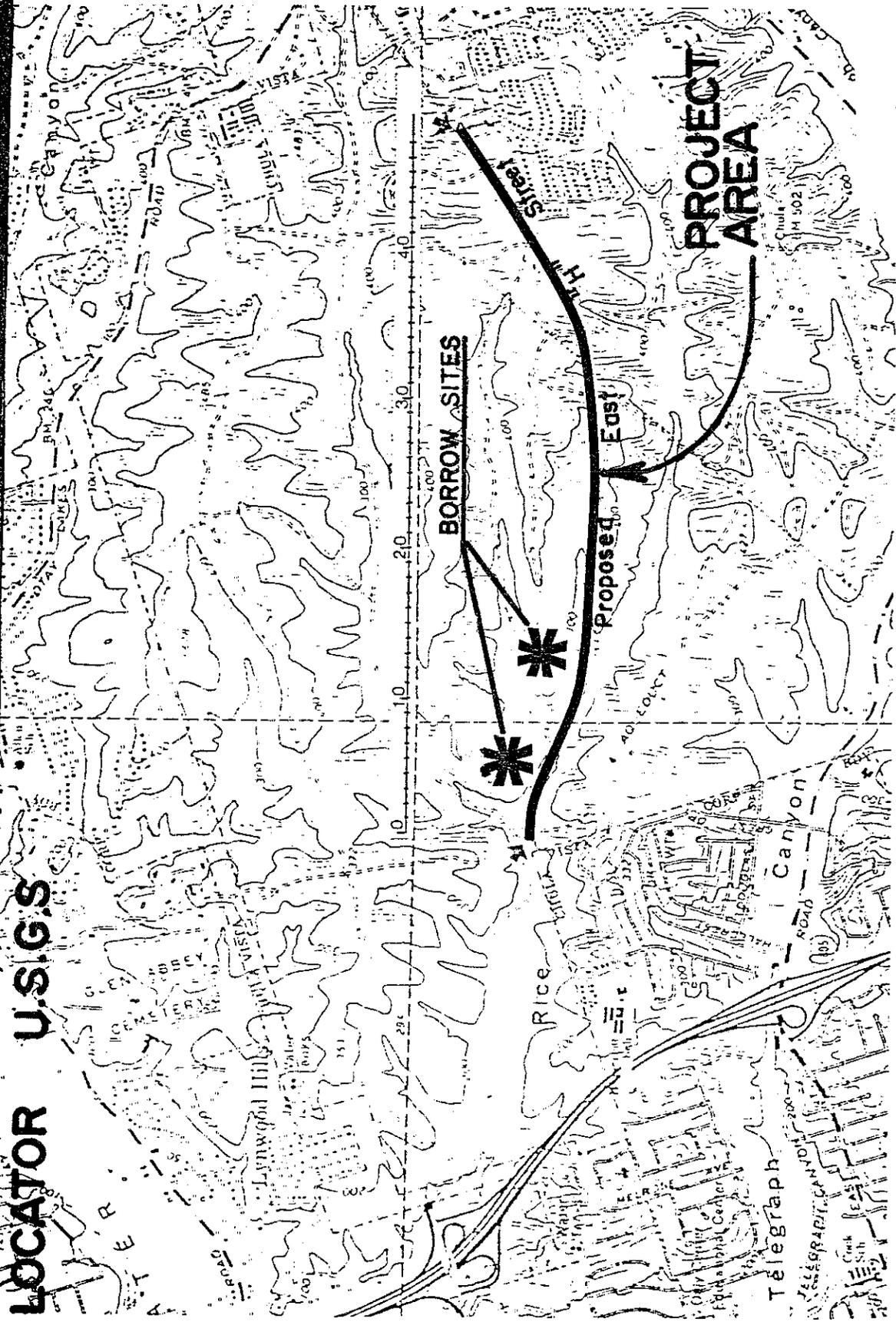
A borrow site would be operated on one of two knolls located on the north side of East H Street near the western end of the project. The maximum cut at the borrow site would be about 75' and the maximum fill would be about 60'-80'. The initial road "bed" width would be about 44' wide.

Additional grading would be necessary to accommodate various temporary and permanent drainage facilities and to tie into adjacent existing or proposed grading. (See Figs. 4 & 5 Improvement and Grading Plans)

### 2.4 Water Pipeline

Within the proposed street improvements, a 16" transmission main from a 1.0 million gallon storage reservoir, (22-2) will be extended westerly to the project boundary. The line is necessary at this time to provide fire protection for construction in the Rice Canyon SPA. An EIR for the pipeline, the 1.0 million gallon tank and a connector line to Telegraph Canyon Rd. was prepared by the Otay Municipal Water District.

**LOCATOR U.S.G.S.**

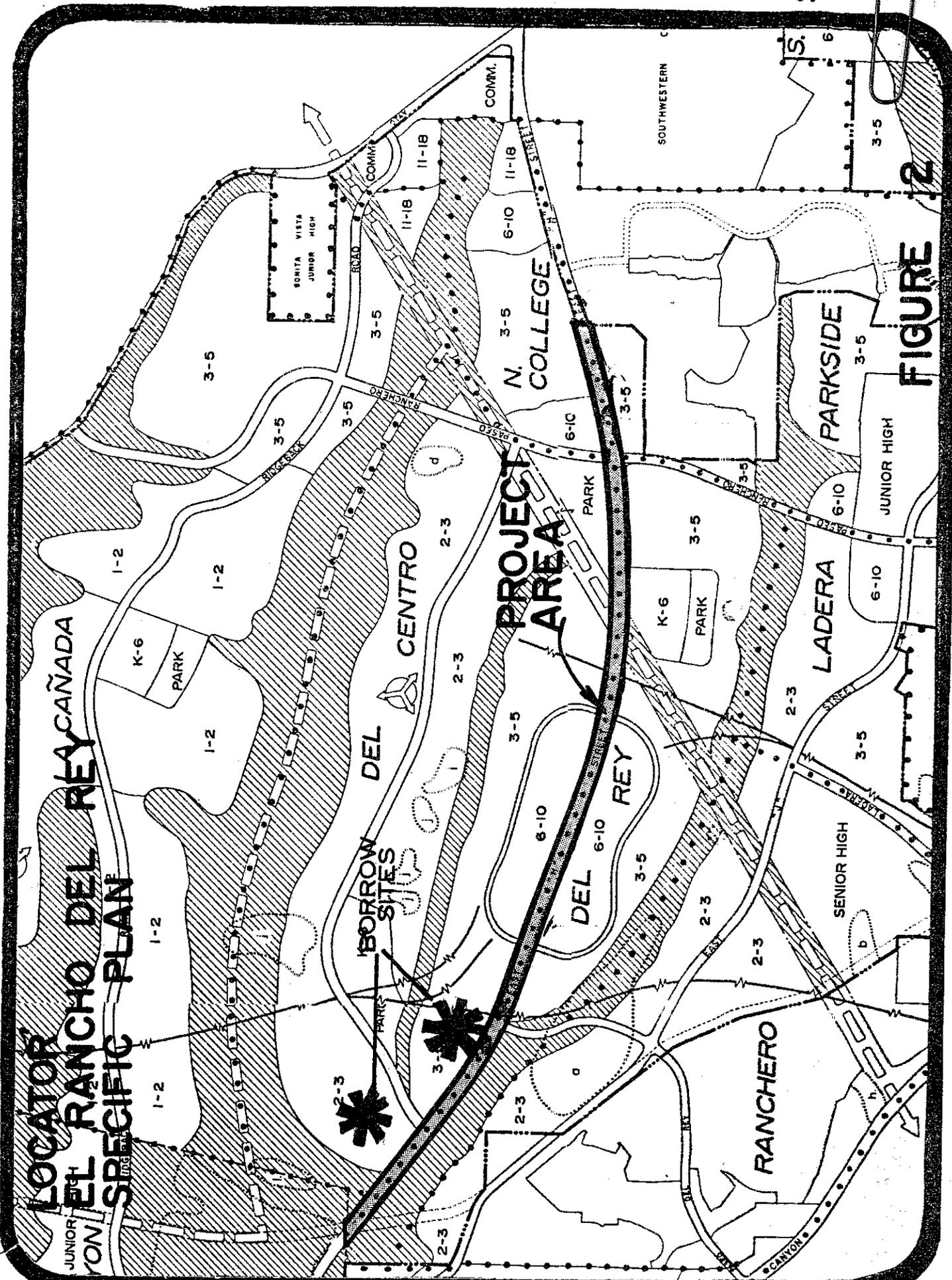


Location map of the proposed East "H" Street extension, City of Chula Vista, California.

Also plotted on this map is an east-west coordinate axis for locating points along the right-of-way.

Base map from the National City, CA, 7.5' USGS quadrangle. Scale 1:24000.

**FIGURE 1**



**FIGURE 2**

**LOCATOR PLAN**  
**EL RANCHO DEL REY**  
**SPECIFIC PLAN**

**PROJECT AREA**

**DEL CENTRO**

**DEL REY**

**RANCHERO**

**LADERA**

**PARKSIDE**

**N. COLLEGE**

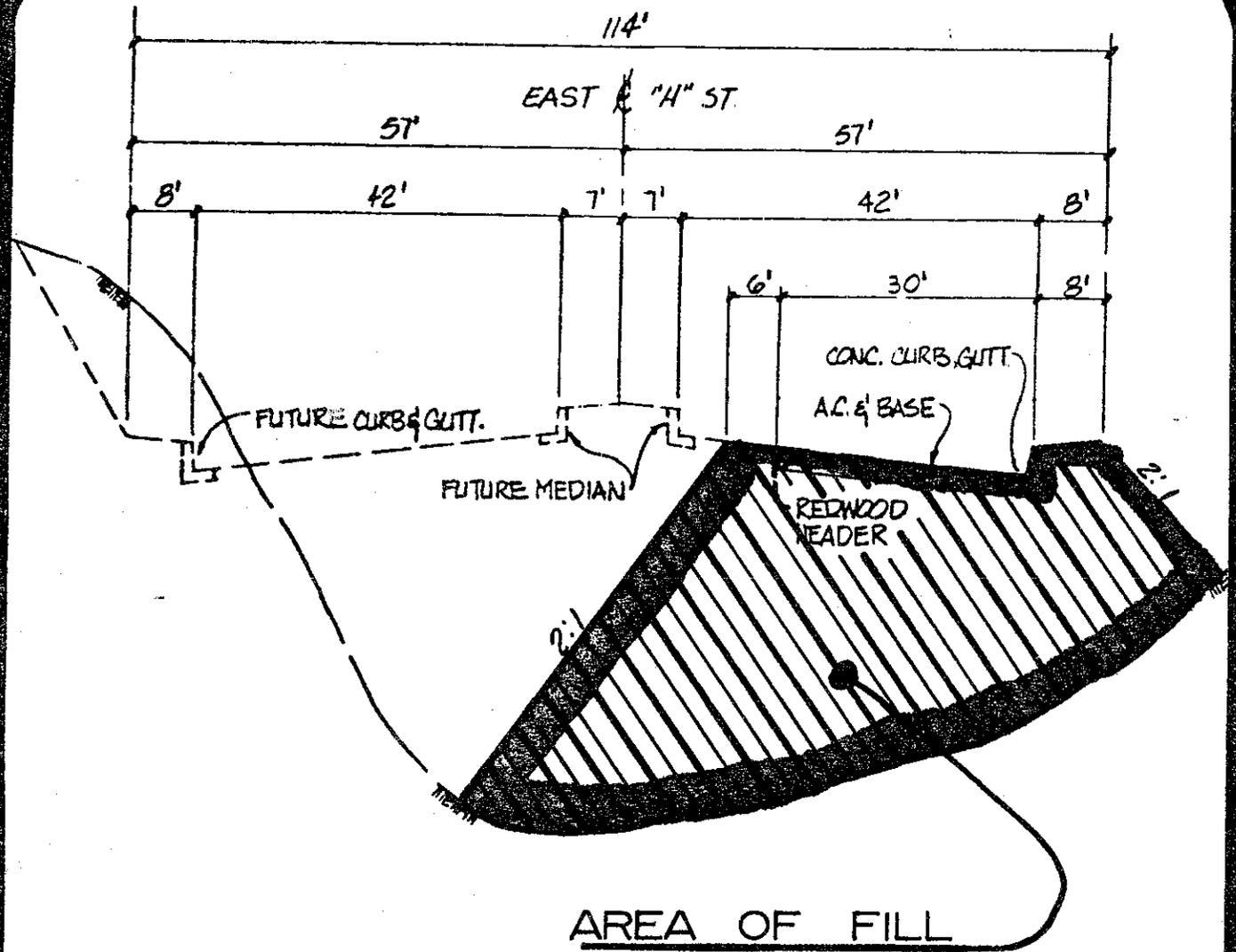
**SONITA VISTA JUNIOR HIGH**

**SENIOR HIGH**

**JUNIOR HIGH**

**JUNIOR HIGH**

**COMM.**

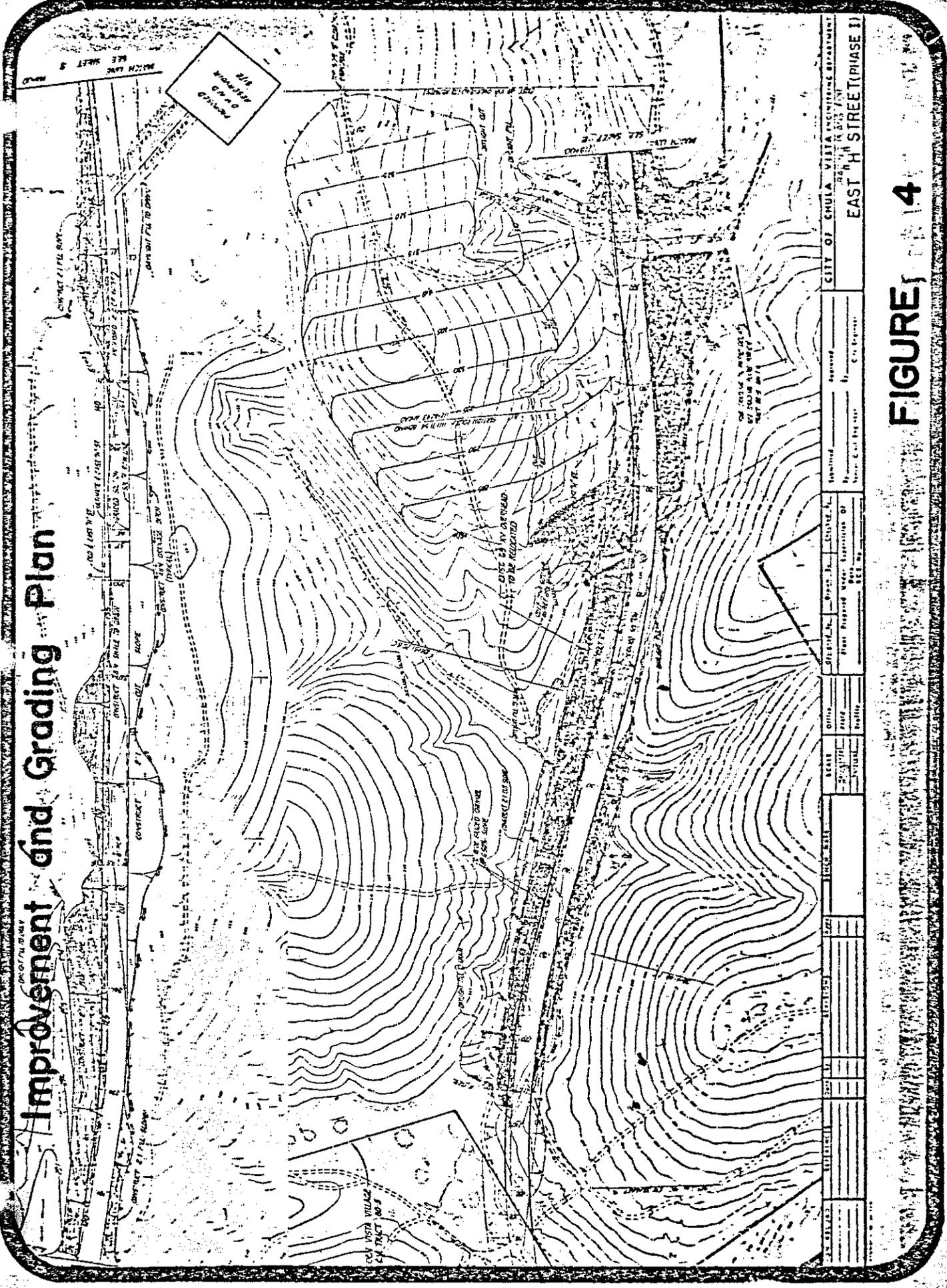


EAST "H" STREET

NO SCALE

EAST 'H' STREET CROSS SECTION  
FIGURE 3

# Improvement and Grading Plan



## FIGURE 4



### 3.0 Environmental Impact Analysis

#### 3.1 Biology

##### 3.1.1 Project Setting

###### Introduction

A biological inventory was made of the H Street right-of-way, between the Watt Industries' Hidden Vista Villages project on the west and the present western termination on the east. Additionally, two borrow areas located on the north side of the right-of-way were surveyed for biological resources.

###### Botany

###### Vegetation

Plant cover along the right-of-way and on the borrow sites can be classified as Maritime Sage Scrub or disturbed open areas. Scrub covers over 90% of the site. The sage Scrub vegetation is different on south facing and on north facing slopes. South-facing slope scrub vegetation is characterized by San Diego Sunflower (Viguiera laciniata), Coastal Sagebrush (Artemisia californica), Jojoba (Simmondsia chinensis), California Sunflower (Encelia californica), Flat-top Buckwheat (Eriogonum fasciculatum), Mohave Yucca (Yucca schidigera), Cholla (Opuntia spp.), Lemonadeberry (Rhus integrifolia) and Laurel Sumac (Malosma laurina). The north-facing slope Sage Scrub approaches the sclerophyllous scrub aspect of Broad-leaf Chaparral to some degree. Species of these less insolated slopes are Bush Mallow (Malacothamnus fasciculatus), Redberry (Rhamnus crocea), Toyon (Heteromeles arbutifolia), as well as Coastal Sagebrush, Lemonadeberry and many herbaceous perennials. In areas of Diablo clay of these north-facing slope areas, some of the larger openings in the shrub cover were much like a grassland but too small to map.

The channel bottoms had Elderberry (Sambucus mexicana) which indicates a somewhat riparian nature; however, other such indicator plants are absent. Disturbance of these bottom areas for roads has resulted in a cover of non-native annuals. Also on the mesa top at the eastern end of the project, west of Paseo Rancheros, illegal dumping of trash and off-road vehicle activity has disrupted the natural plant cover there.

On the flat mesa tops at the eastern end of the project alignment are vernal pools which occur within the Maritime Sage Scrub and disturbed vegetation cover. These pools have been known for several years and are cited in the regional inventory of vernal pools in San Diego County (Beachamp & Cass 1979). Because of the shallow pool depths, the flora is not as well developed as the vernal pools on Otay Mesa. These pools along the right-of-way, as well as those on the Ridgeback right-of-way in the Hidden Vista Villages project, are the last known vernal pools in the Rancho del Rey area. They represent a segment of the continuum of that habitat that once occurred along the coastal terraces about San Diego. The pools on-site have been badly disrupted by trash dumping and off-road vehicle activity.

### Flora

The observed flora of the project area is typical for the area and reflects the occurrence of plants known from the area with one notable exception.

During the survey, two colonies of Cotton Thorn (Tetradymia comosa) were found. This species is unrecorded from the region, being known only as far west as Dulzura previously (Beauchamp, in prep.). The species is associated with Great Basin Sagebrush in San Diego. Its occurrence on the right-of-way is of academic interest only, however. A voucher to document the population will be taken before implementation of the project.

The observed flora totals 72 plant taxa. The diversity of slopes and habitats along the project alignment is relatively low and this is reflected in the floral checklist.

### Wildlife Habitat Evaluation

The borrow sites and right-of-way contain two general wildlife habitat types, scrub and disturbed. These basic types are made more diverse by the presence of secondary features such as seasonal surface water in vernal pools and along drainages, and by differences in soils. Faunal diversity is somewhat depressed due to the limited diversity of plant communities on the sites and right-of-way.

Scrub vegetation is minimally disturbed, and occurs in fairly vast stands; this, together with the fact that much undisturbed scrub habitat occurs nearby, allows for

high usage by areal wildlife. Many dirt roads traverse much of the area. These provide easy access to off-road vehicles, which are disruptive to animals, especially the larger, less tolerant species such as deer, Bobcat and Mountain Lion. The presence of large stands of Cholla (Opuntia spp.) provides nesting and roosting habitat for the uncommon Cactus Wren. Other animals species closely associated with Sage Scrub habitat are Orangethroat Whiptail and Black-tailed Gnatcatcher.

The disturbed areas are useful to certain species such as Western Meadowlark, which utilize the grassy cover for forage and nest habitat. Although badly disturbed, the vernal pools provide a seasonal source of water for many animals, including amphibians which undoubtedly breed there.

## Zoology

### Amphibians and Reptiles

No amphibians were detected during the survey, although Pacific Treefrog (Hyla regilla) and Western Spadefoot (Scaphiopus hammondi) have been reported nearby (Beauchamp & Montgomery 1979). These amphibians, and other species, are expected in the mesic areas of the area, i.e. drainages and vernal pools, although they also occur far from surface water in the non-breeding season.

Three reptile species were detected. Orangethroat Whiptail (Cnemidophorus hyperythrus) seems to be abundant in the open scrub areas, being seen frequently foraging along the ground. Striped Racer (Masticophis lateralis lateralis) was seen twice in fairly dense Sage Scrub. The shed skin of a rattlesnake (Crotalus sp.) was found along a road through Sage Scrub cover. It is most likely that this animal is a Southern Pacific Rattlesnake (Crotalus viridis helleri). Numerous other reptile species are expected, including San Diego Horned Lizard (Phrynosoma coronatum blainvillei), Great Basin Fence Lizard (Sceloporus occidentalis longipes), California Side-blotched Lizard (Uta stansburiana elegans), Coastal Whiptail (Cnemidophorus tigris multiscutatus), and San Diego Gopher Snake (Pituophis melanoleucus annectans).

### Birds

A total of 21 species, distributed among about 120 individuals, was detected. Many more species are expected, but were not detected due to season and duration of the survey. All are common or fairly common residents or migrants in the coastal San Diego County area.

Seventeen species are expected to breed on or very near the site. The absence of large individual trees or woodlands probably precludes the nesting of certain species such as Cooper's Hawk and Red-tailed Hawk, although these and other raptors forage on-site.

Two infrequently encountered species, Cactus Wren and Black-tailed Gnatcatcher, breed on the site. In western San Diego County these birds breed in Sage Scrub vegetation, which is becoming increasingly uncommon along the coast. Cactus Wren specifically requires sufficiently large stands of cactus of the larger, branching types (e.g. Prickly-Pear and Cholla). Two nests were found along the H Street Extension and one was found on the west borrow site. Black-tailed Gnatcatcher was present in fairly high density over the entire project area.

#### Mammals

Five mammals species were detected during the survey. All are common San Diego County residents. Numerous other species, especially heteromyid and cricetid mice, would be shown to occur on the site following an intensive live-trapping effort. Sign of Brush Rabbit (Sylvilagus backmani), California Ground Squirrel (Spermophilus beecheyi), and Botta's Pocket Gopher (Thomomys bottae) was frequently observed, especially in the lower elevations. Agile Kangaroo Rat (Dipodomys agilis) sign was seen along the edge of dirt roads only, although this animal is expected over most of the site. Scat of Coyote (Canis latrans) was common over the site, especially along roads.

#### Sensitive Plants

Five plant taxa considered sensitive by various agencies and groups occur on the project site.

1) San Diego Sunflower (Viguiera laciniata) is a common element of south-facing slope Sage Scrub vegetation. It is common to sunny slopes of coastal southwestern San Diego County. Habitat of this plant is being taken for housing development in the region.

2) Snake Cholla (Opuntia parryi var. serpentina) is a very abundant element of south-facing slopes. Based on observations elsewhere in the Rice Canyon area, the density of this plant is extremely high along the right-of-way and on both borrow sites. The best development of the plant in the United States appears to be in the Rice Canyon area and particularly along the project area.

3) Pygmy Spike-Moss (Selaginella cinerascens) is common on sunny slopes of the project area. Its habitat is being lost to coastal development.

4) San Diego Ambrosia (Ambrosia pumila) occurs at the base of the south slope of the western borrow site. The plants appeared to be somewhat introgressed or hybridized with Ambrosia acanthicarpa, which occurs in the region also. Of the two other locations known for this plant in the Rice Canyon area, one was taken during alignment of H Street to the west and the other for an Otay Municipal Water District pipeline to the southwest. Only about six other sites are known for the species in the United States, all being coastal, in areas of housing development.

5) Coast Barrel Cactus (Ferocactus viridescens) is surprisingly rare along the right-of-way. Only two plants were noted just east of the San Diego Gas and Electric powerline right-of-way.

Several other sensitive plants are known from the region but were not observed in the project area. There are Ericameria palmeri, Bergerocactus emoryi, Salvia cleve-landii, Ambrosia chenopodiifolia and Cordylanthus orcuttianus.

In addition to these sensitive plants, two additional noteworthy plants occur along the right-of-way. The Cotton Thorn (Tetradymia comosa) occurrence represents the westernmost site in San Diego County. Apparently the species occurs in the northern Sierra Juarez in Baja California, but not as far west as the Rice Canyon site (Wiggins 1980).

Finally, it should be noted that at both borrow sites and along much of the western portion of the right-of-way, large stands of Jojoba (Simmondsia chinensis) occur. This shrub is gaining international prominence due to its ability to produce a quality grade of lubricant for a wide range of uses. Much of the open space allocated in the Master Plan for the Rancho del Rey area includes this unique shrub, yet it is somewhat distressing to consider the possible loss of particularly useful genomes and cultivars of this plant which might not necessarily occur in open space areas. Seed collection from the shrubs does occur, but the dispensation of the seeds is unknown. The decimation of coastal-adapted Jojoba populations could well mean loss of potential future economic benefit to mankind. This may seem a rather idealistic evaluation for such a locally occurring plant; yet Jojoba has such a potential.

### Sensitive Animals

None of the observed or expected species is considered rare or endangered by state or federal agencies, although 20 species that were either detected or are expected, are considered sensitive by various groups and authorities. For an explanation of these authorities and their rating systems, see Appendix B.

The site seems to be very important habitat for certain sensitive scrub species, namely Orangethroat Whiptail, Cactus Wren and Black-tailed Gnatcatcher. These three species are suffering declines in their breeding populations in the coastal areas of southern California. Cactus Wren and Black-tailed Gnatcatcher occur not only in the coastal areas, but also over much of the desert. Evidence that the coastal populations are distinct subspecies or even distinct species is gaining thought. Should this be the case, preserving habitat such as occurs on-site will become a necessity.

#### 3.1.2 Expected Biological Impacts

Use of either of the borrow sites and construction of the road bed will destroy:

- 1) Cactus Wren habitat and nests sites.
- 2) Black-tailed Gnatcatcher habitat and nest sites.
- 3) A wildlife corridor (the proposed alignment of H Street).
- 4) The only known coastal station of Cottonthorn (Tetradymia comosa), a noteworthy plant from the area.
- 5) Many acres of Snake Cholla and San Diego Sunflower habitat.
- 6) One colony of San Diego Ambrosia
- 7) A substantial portion of the only remaining vernal pool habitat between Otay Mesa and Kearney Mesa.
- 8) Adjacent natural areas by increasing the opportunities for off-road vehicle activity.

#### 3.1.3 Mitigation of Impacts

Recommended actions associated with the project and which will reduce the biological impact of the project are:

- 1) Restriction of equipment to project site.
- 2) Stabilize slopes with site-native plants.

- 3) Salvage of Snake Cholla for replanting on south-facing slopes.
- 4) The opportunity for the salvage of Yucca and its use in the re-vegetation of this project and others in the area should be maintained. The project Landscape Architect and the City's Landscape Architect should select the plants most suitable for transplantation or storage.

#### 3.1.4 Analysis of Significance

The above specified mitigation measures will reduce the adversity of the projects' impacts. However, there will be a long term cumulative impact on the unique biological resources found in the general vicinity of the project.

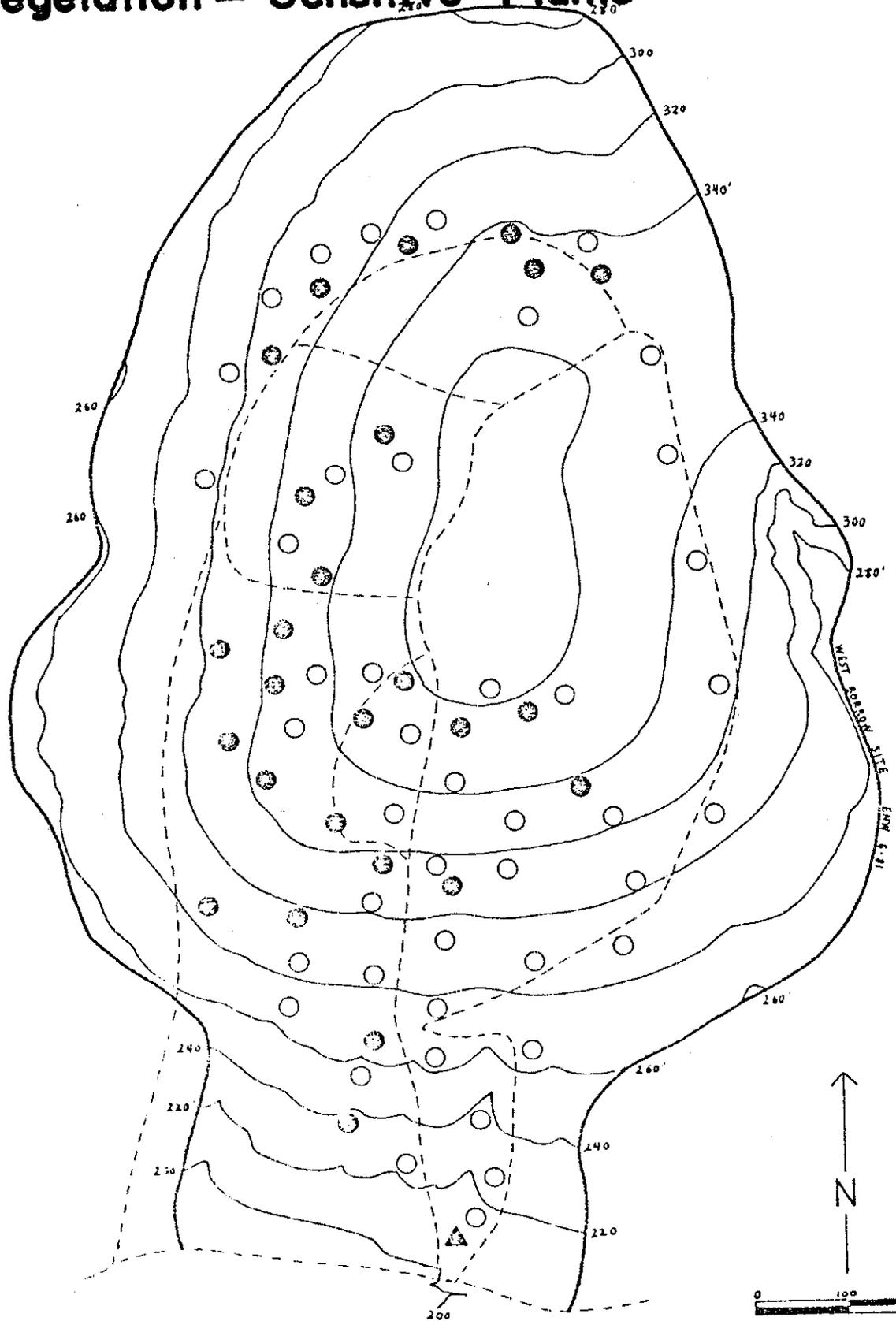
## LEGEND FOR VEGETATION MAPS

-  Maritime Sage Scrub
-  Vernal Pools
-  Disturbed
-  Ambrosia pumila
-  Ferocactus viridescens
-  Opuntia parryi var. serpentina
-  Selaginella cinerascens
-  Viguiera laciniata
-  Black-tailed Gnatcatcher

---

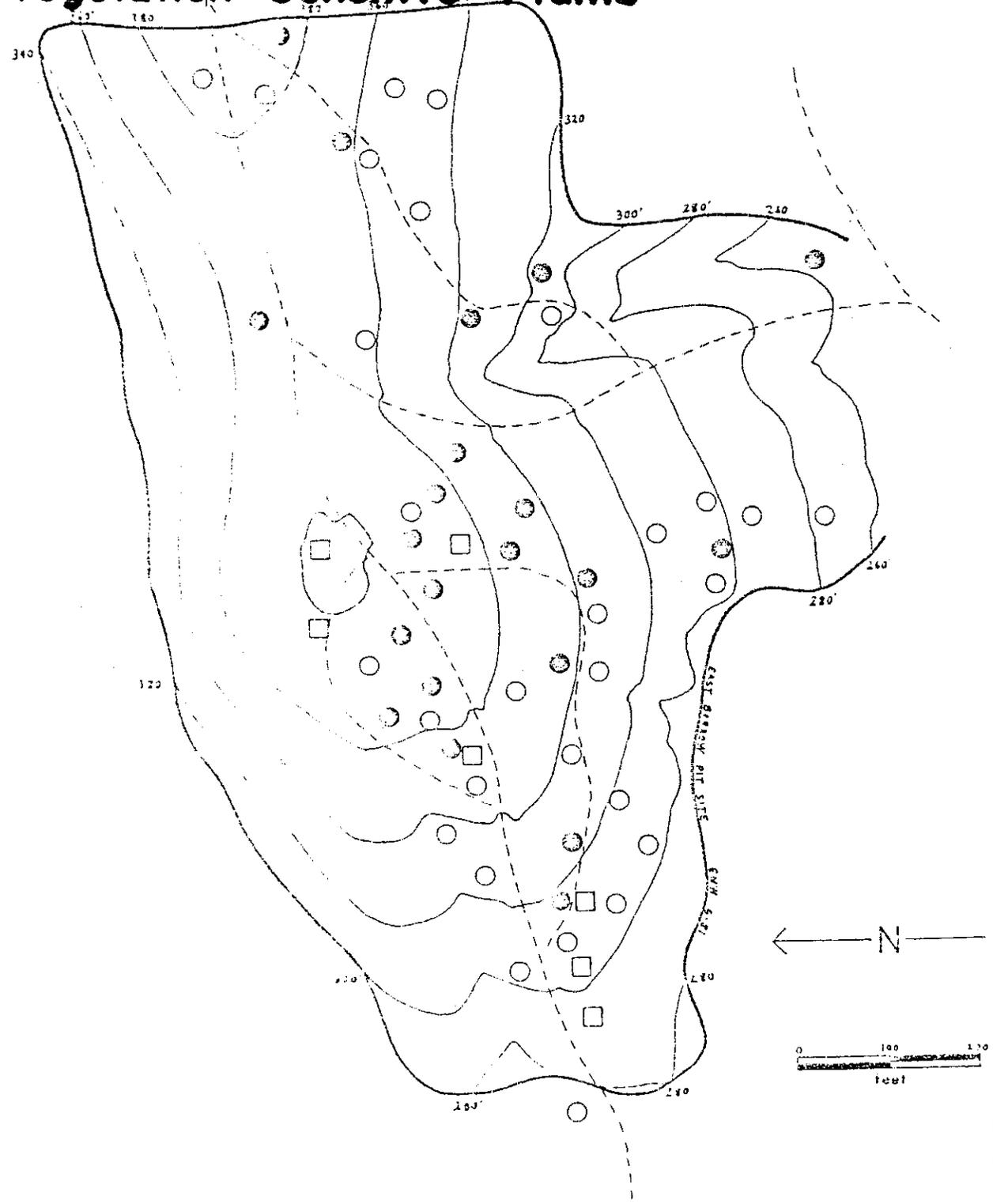
Intervals of 5 represent linear distance of 500 feet

# West Borrow Site Vegetation – Sensitive Plants



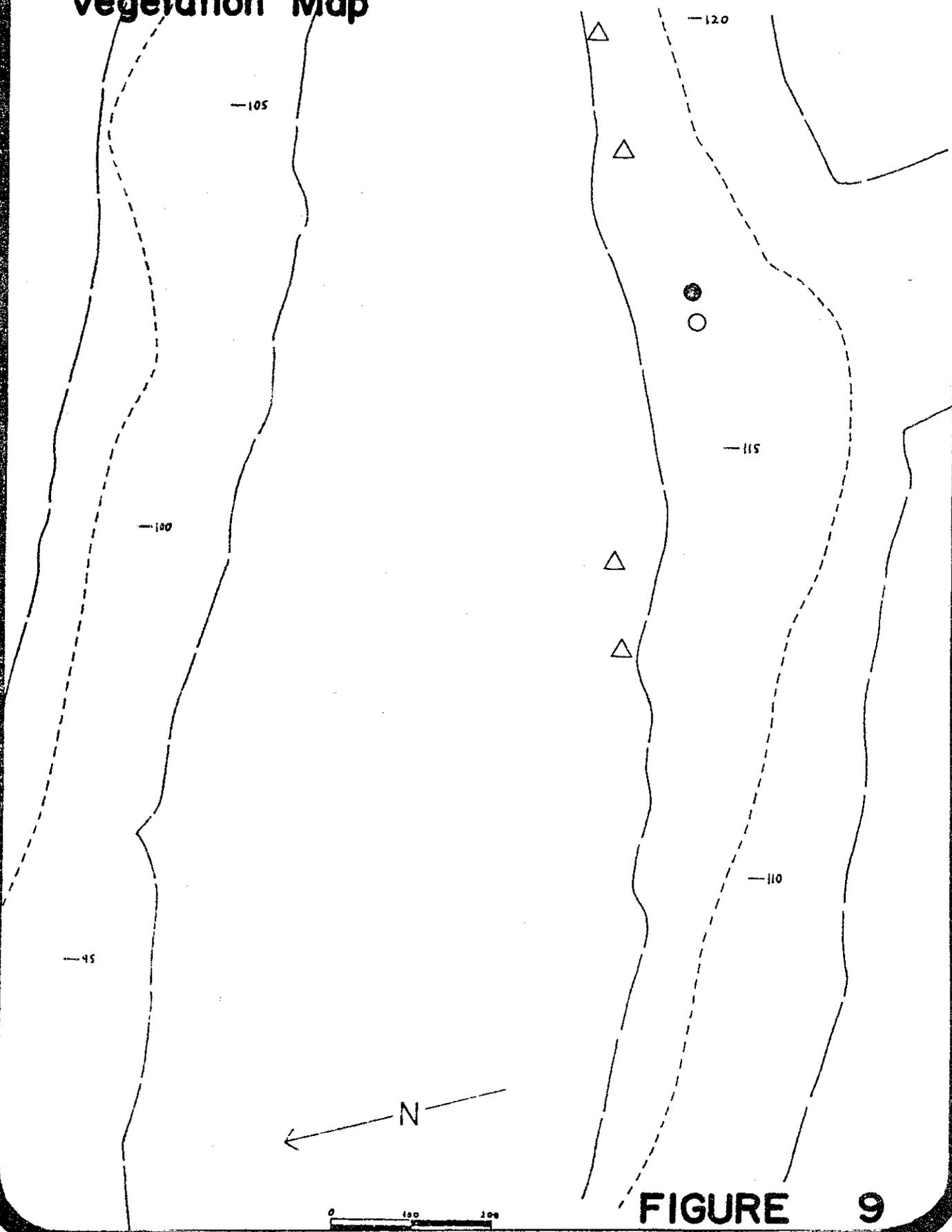
**FIGURE 7**

# East Borrow Site Vegetation-Sensitive Plants



**FIGURE 8**

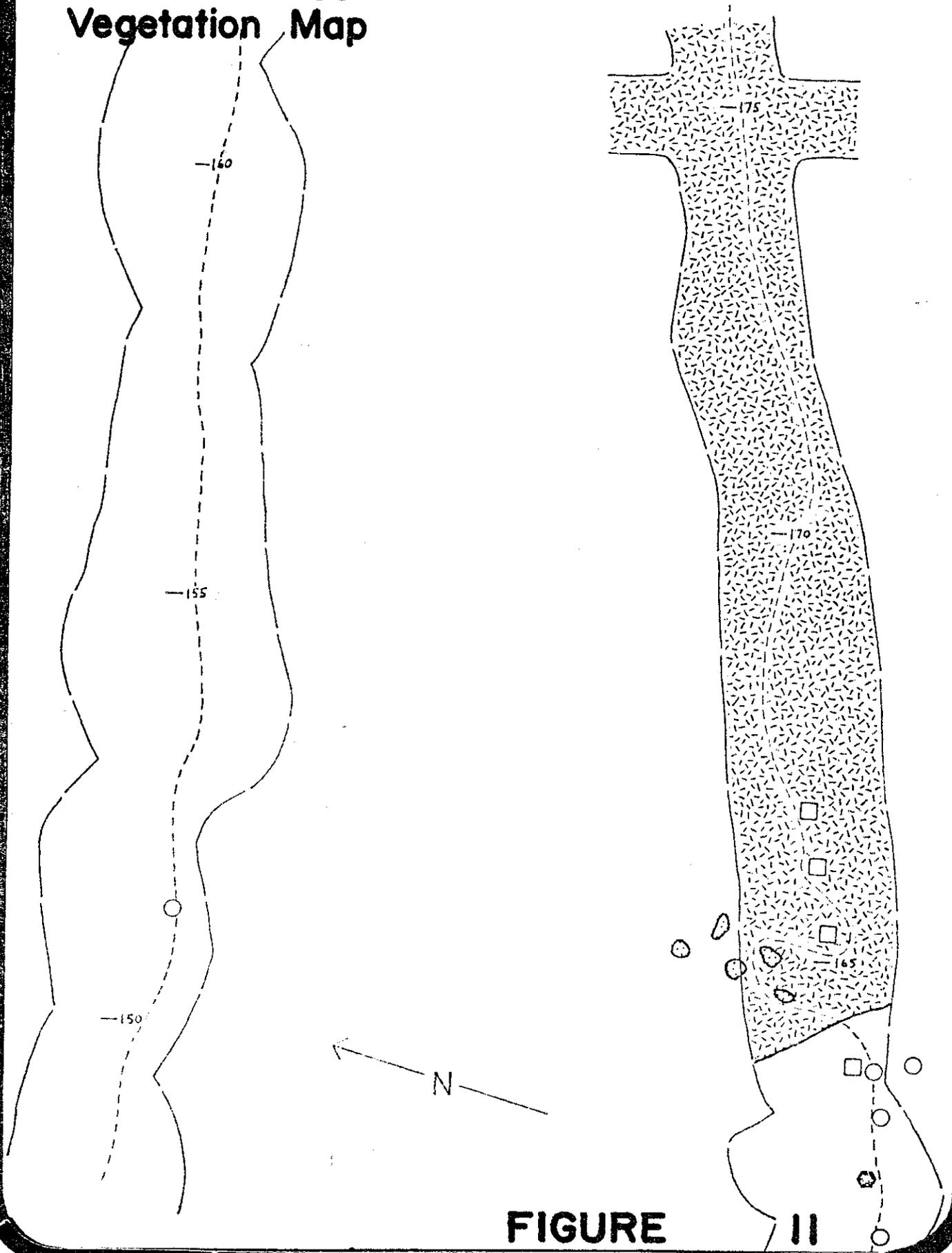
# East H Street Vegetation Map



**FIGURE 9**



# East H Street Vegetation Map



**FIGURE**

**II**

## 3.2 Geology/Soils

### 3.2.1 Project Setting

#### 3.2.1.1 Geology

In terms of its general geologic setting, the proposed right-of-way lies within the La Nacion zone of deformation (Artim and Pinckney, 1973). This zone of deformation is characterized by several N-S and NW-SE trending faults that have offset the bedrock units in this area in a general stair-step fashion, dropping the rocks on the west side of the faults down relative to those on the east side. The proposed right-of-way trends almost at a right angle to these faults and thus encounters different rock sequences going from west to east.

Figures 12 & 13 show the geology of the project area and Figure 14 is a copy of the generalized geologic map (Kuper 1977) showing his interpretation of the faulting and distribution of rock units along and adjacent to the right-of-way. This map is fairly accurate and should serve the purpose of providing a general view of these relationships. A more detailed report was carried out by Woodward-Clyde Consultants (WCC) of the faulting in this area. Based on these previous studies and on supportive field work it is possible to recognize four rock units along the proposed right-of-way.

These range in age from Late Miocene (11 million years before present) to the recent and include from oldest to youngest: the Miocene aged, Otay Member of the Rosarito Beach Formation; the Pliocene-Pleistocene aged, San Diego Formation; the Pleistocene aged, Lindavista Formation; and Quaternary aged, valley-fill alluvium.

#### Otay Member, Rosarito Beach Formation (Tot)

Exposures of the Otay Member (Artim and Pinckney, 1973) occur along the right-of-way in only a few isolated areas, usually just to the east of individual faults. White, gritty sandstones of this unit are exposed in the geotechnical, exploratory cut at the mouth of the canyon along the right-of-way. Also exposed in this cut is the contact of the San Diego Formation with the underlying Otay Member (Tot)

Another area of Tot exposures occurs in the north-south trending gully beneath the SDGE power-line easement.

#### San Diego Formation (Tsd)

The San Diego Formation (Hertlein and Grant, 1944) is a marine sedimentary rock unit that was deposited between 1.5 and 3.0 million years ago when much of southwestern San Diego County was submerged beneath the waters of a broad bay.

Along the right-of-way the San Diego Formation (Tsd) underlies most of the canyon and gully slopes below approximately 450 to 490 ft. elevation. In this area Tsd exposures are characterized by yellowish, very fine-grained, silty sandstones with occasional pebble layers and locally common fossils. Natural exposures as well as near surface artificial exposures display caliche (hardpan) formation. This caliche has penetrated down into the bedrock disturbing and obscuring many of the outcrops.

#### Lindavista Formation (Qlv)

The Lindavista Formation (Kennedy, 1975) of early Pleistocene age (1.5 million years before present) represents a transitional marine to non-marine sedimentary rock unit. Along the right-of-way these rocks form the rust-red, weathering, coarse sand to cobble unit that makes up the level mesa areas about 450 to 490 ft. elevation.

#### Quaternary Alluvium, Slopewash and Soil (Qal)

Quaternary age alluvium occurs as valley-fill material in the canyons and gullies along the right-of-way. In addition, thin veneers of slopewash and soil cover portions of the mesa surfaces and many of the canyon and gully slopes.

#### 3.2.1.2 Soils

The soils in the vicinity of the project have two features which are potentially significant insofar as the project is concerned.

The Otay Formation contains horizons of pure bentonite which is a highly expansive clay. The Quaternary alluvium is loose and compressible.

### 3.2.2 Project Impact

#### 3.2.2.1 Geology

The Master EIR (EIR-78-2) provides an analysis of potential geological impacts due to development of the El Rancho del Rey area.

The most important restriction regarding the development of the subject project is the presence of the La Nacion fault system across the proposed East H Street extension. Although the fault is only potentially active, any ground rupture or settlement along the fault lines could effect the street and associated utilities.

#### 3.2.2.2 Soils

Developments throughout the vicinity of the project have encountered the expansive soils and compressible soils which occur on-site. These potential impacts have been dealt with through standard engineering practices in a satisfactory manner.

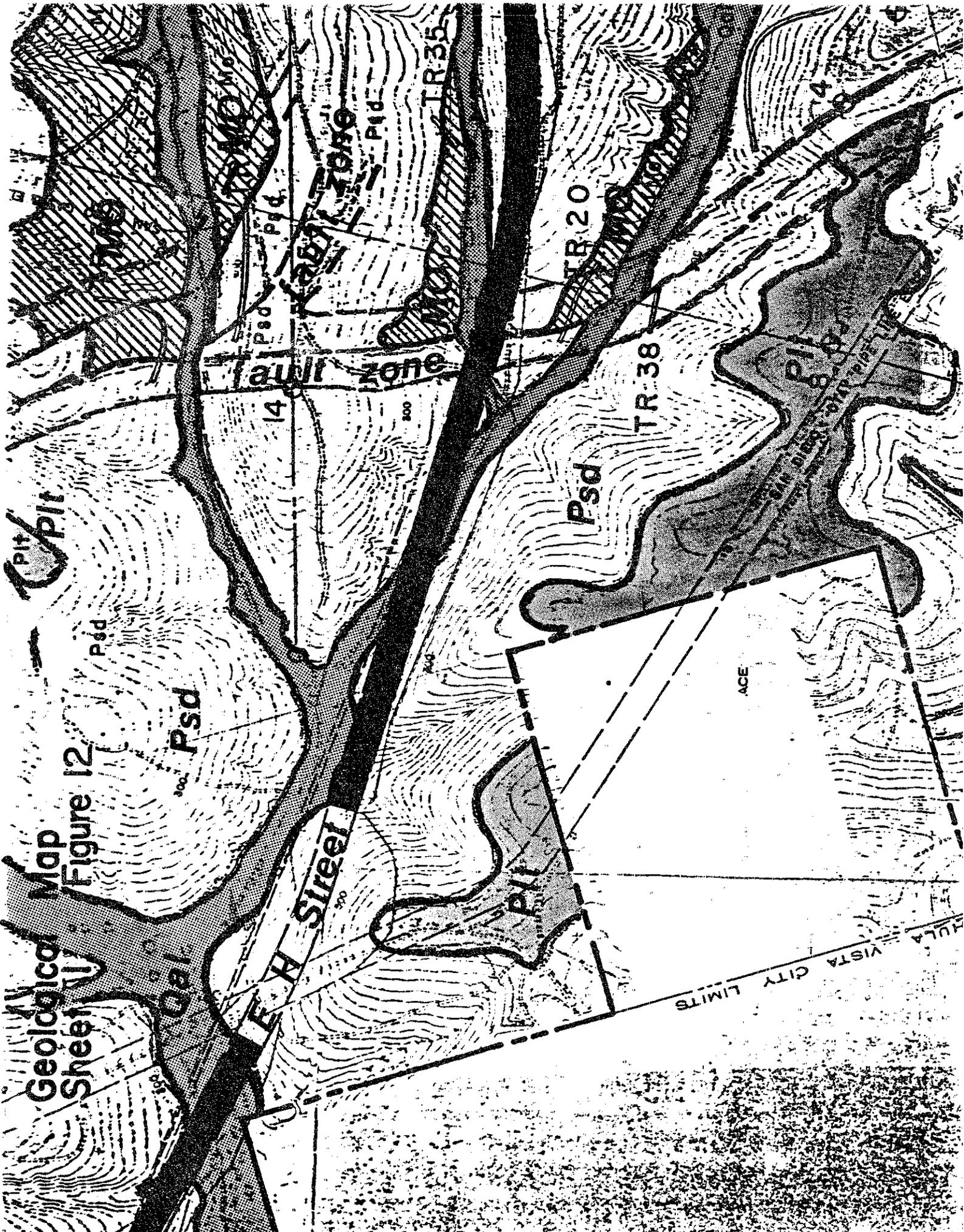
### 3.2.3 Mitigation

The design of utilities which cross the fault zone should take into consideration the possibility of a future offset along the fault traces. This has already been accomplished in the design of the proposed water transmission main.

There is no feasible mitigation to reduce the adversity caused by a rupture of the street improvements themselves. Standard development regulations will result in satisfactory mitigation of adverse soil conditions.

### 3.2.4 Analysis of Significance

Any adverse effects due to development of this area of potentially significant geological and soil conditions can be mitigated to a level of insignificance.



Geological Map  
Sheet V  
Figure 12

PIT

Psd

Psd

Fault zone

14

E H Street

200

Psd

TR 20

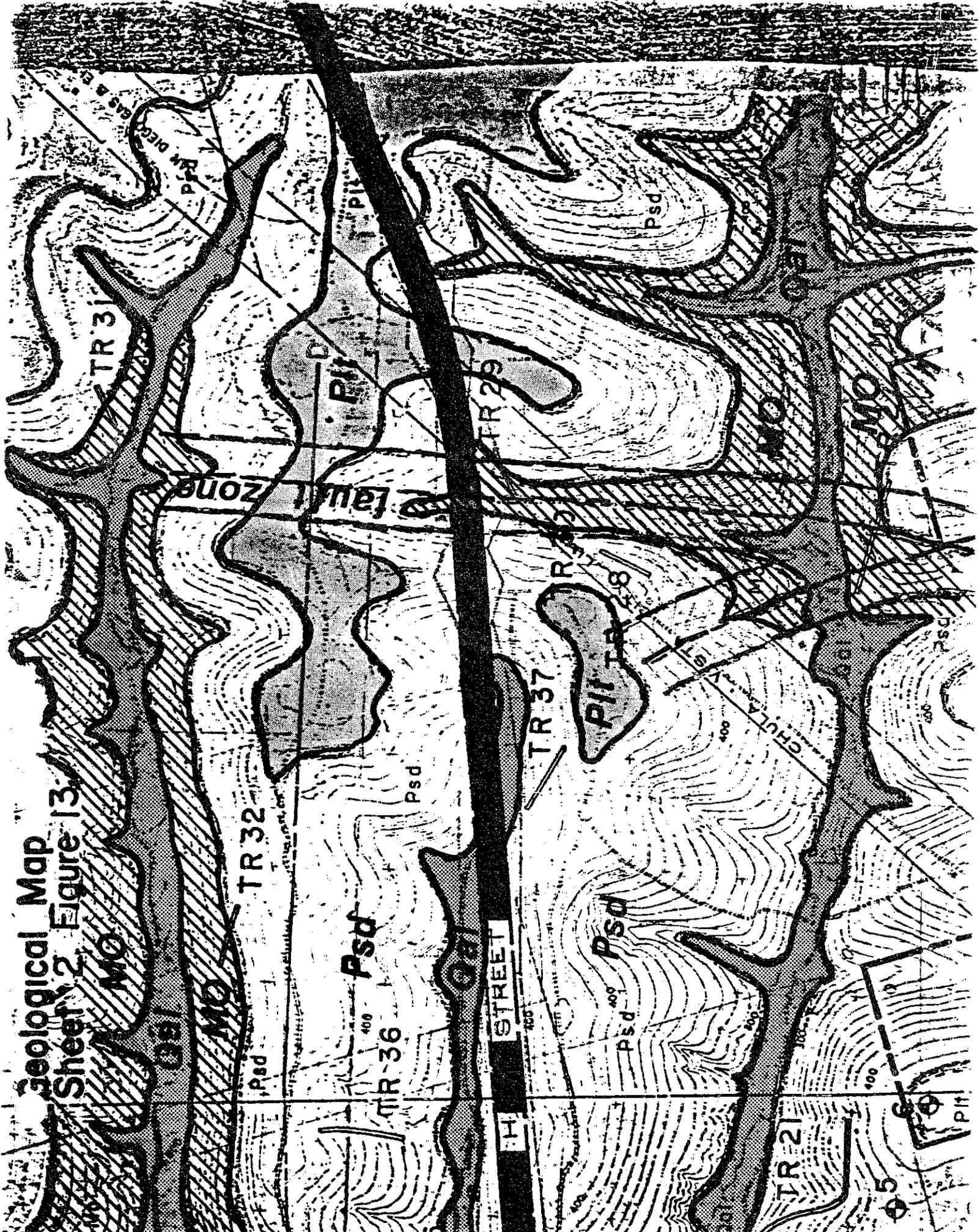
TR 38

TR 35

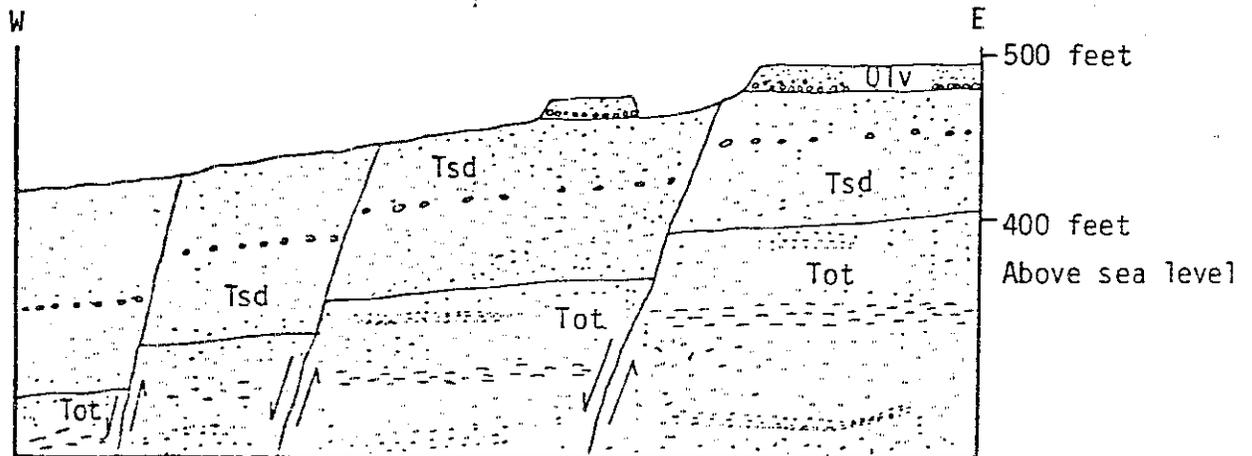
ACE

VISTA CITY LIMITS

Geological Map  
Sheet 2, Figure 13



# Simplified Geologic Cross Section Along The Proposed Right of Way



**FIGURE 14**

### 3.3 Archaeology

#### 3.3.1 Project Setting

On June 5, 1981 WESTEC Services, Inc. completed an archaeological survey of the proposed H Street extension and borrow pits. The subject lands, comprising approximately 40 acres of borrow site and 2 miles of canyon bottom and adjacent slopes, was intensively surveyed for the presence of cultural resources.

The results of the in-field survey were negative; no archaeological sites or remnants were observed within the boundaries of the proposed H Street extension or the borrow sites.

#### 3.3.2 Analysis

Because the survey results were negative, there are no foreseeable potential adverse impacts to cultural resources. The absence of potential adverse impacts precludes the necessity for mitigation procedures. In brief, the archaeological survey of the proposed H Street extension and borrow sites revealed no cultural resources that would be adversely impacted by future development.

### 3.4 Paleontology

#### 3.4.1 Project Setting

To determine the extent of previous paleontological investigations in or near the study area, a search was made of the locality records of the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles (LACM), and the Paleontology Section of the San Diego Natural History Museum (SDSNH). A search of published and unpublished paleontological and geological literature was also carried out to supplement this investigation of prior work.

It is important to mention that paleontological resources (fossils) are directly tied to the geological rock units in which they are preserved (example, marine fossils found in marine sandstones). Because of this relationship between rock units and their contained fossils, an understanding of the distribution of these units along the right-of-way provides a basis for evaluating the paleontological resource potential of the area. In addition, a knowledge of the past fossil productivity of these units elsewhere in San Diego County, contributes further to this evaluation. (see sec 3.2 Geology)

The otay member (Tot) is a volcanically derived non-marine sedimentary rock unit which is characteristically barren of fossils. This barren aspect was confirmed in the field as no fossils were observed. In addition, museum records and scientific literature reveal no paleontological localities in this unit along the right-of-way.

In terms of paleontological resources Tot has little or no potential.

The San Diego Formation (Tsd) is a marine sedimentary rock deposited 1.5 to 3.0 million years ago and has been found to be fossiliferous. Fossils observed at these sites consist primarily of marine mollusks and echinoderms (i.e. clams, oysters, snails and sand dollars). At one locality (WCC, T-37) geotechnical trenching has exposed sand dollars and poorly preserved clam and scallop shells along with the rare occurrence of fossil bird (Mancala sp.) and marine mammal. This locality lies just north and west of the site of the proposed O.W.D. reservoir along the south side of the right-of-way. The marine mammal occurrence is based on bone fragments which are difficult to identify precisely. However, their appearance suggests that they may represent sea cow remains (siren similar to the manatee of Florida).

Just to the east of this locality, fossiliferous Tsd sandstones are exposed in a SDGE access road-cut at M-30. Fossils in this cut are marine mollusks and echinoderms including the snails, Acanthina emersoni and the sand dollar, Dendraster ashleyi.

Farther west, fossils were encountered in a geotechnical test trench (Wcc, T-19) along the south side of the right-of-way. Fossils here are fairly common but are only preserved as impressions, the original shell material having been leached-out by surface weathering. Mollusks predominate at this locality and include: the snails, Neverita sp., Turritella sp., Fusinus sp., and Tellinidae indet.

Museum records contain no reference to fossil localities along the right-of-way. This is due to a lack of sampling rather than to a lack of paleontological resources. Several localities are recorded from within a mile of the study area both to the south, west and east. These localities have yielded remains of whale, horse, bird, shark and mollusks. In addition, the current grading of the Watt Industries parcel due west of the study area had been turning up a wealth of marine mammal, bird, and molluscan fossils.

Together these occurrences, both along and adjacent to the proposed right-of-way, document the resource potential of Tsd sandstones in this area of San Diego County. These resources are quite significant, especially the occurrences of marine mammal remains. The evolution of this group of animals is only poorly known, due primarily to a lack of good specimens, therefore any occurrences of these fossils is considered to be significant.

The Lindavista Formation (QLV) is a transition from marine to non-marine rock units deposited 1.5 million years before present.

No fossils were encountered in this formation during the field walkover and there are no museum localities recorded along the right-of-way in these rocks. The Lindavista Formation (Qlv) is characteristically without paleontological resources except for a locality near Tierrasanta (Kennedy, 1973) and one, a half mile south of the right-of-way, on the Casa Del Rey property. This scarcity of fossil material in Qlv sediments suggests that any additional localities would be significant. A potential does exist for the discovery of fossil material along the right-of-way however, this potential is considered to be low.

The last formation is the Quaternary Alluvium, Slope-wash & Soil (Qal). These deposits are characteristically barren of paleontological resources and examination of outcrops of them along the right-of-way failed to turn up any fossils.

### 3.4.2 Project Impact

As previously discussed, the fate of paleontological resources is tied directly to the fate of the sedimentary rocks that contain them. As such, any disturbance of these rocks will result in some resource impact. The cuts proposed for the right-of-way, together with the large amount of fill material to be borrowed from one of two borrow sites suggests that paleontological resources will be impacted during grading operations. This impact will vary in significance depending upon the rock units be graded.

#### Otay Member, Rosarito Beach Formation (Tot)

As essentially no potential exists for the recovery of paleontological resources from this rock unit, grading activities in it will result in no significant resource impact.

#### San Diego Formation (Tsd)

As a high potential exists for the recovery of significant paleontological resources in this unit, grading activities in it will clearly result in a resource impact.

Areas of special concern include both the primary and alternate borrow sites, where extensive grading operations are proposed. The primary borrow site is cut by the main trace of the La Nacion Fault with the result that Tsd sandstones will not be as thick on the east or up-thrown side of the fault. In this area unfossiliferous Otay Member sandstones will thus be encountered at a shallow depth. The alternate borrow site lies entirely west of this fault and grading in this area will impact solely Tsd sandstones.

Other areas of concern are the cuts proposed along the south side of the right-of-way. It is expected that these cuts will expose fossil-bearing Tsd sandstones. Of special concern is the proposed cut which is in close proximity to the marine mammal and bird locality. In this same area the pipeline trenching proposed by O.W.D. will also result in a resource impact.

Farther east the proposed cut may expose significant fossiliferous rocks. However, the potential here is not as great as those areas to the west.

Lindavista Formation (Qlv)

As only a minor potential exists for the discovery of paleontological resources in this unit, it is expected that grading activities in it will result in a very low resource impact.

The only areas of concern regarding Qlv sediments occur to the east where the right-of-way rises to the main mesa surface. Here two cuts will expose up to 15 ft. of Qlv.

Quaternary Alluvium, Slopewash and Soil (Qal)

These geological recent sedimentary deposits have a very low resource potential and consequently grading activities in them will result in no significant impact.

3.4.3 Mitigation measures to avoid Significant Impact

As discussed above, construction of the proposed East H Street extension will have impact on significant paleontological resources. This impact may be beneficial in terms of fossil discovery and salvage, or it may be adverse by resulting in inadvertent destruction. On the positive side, construction activities elsewhere in San Diego County, as on the Watt Industries property, have led to the discovery of new paleontological resources. Because these resources occur in the subsurface and because most surface exposures are usually deeply weathered, mitigation of paleontological resource impacts must take place while grading operations are underway. In this way, fossil material can be salvaged as it is uncovered. The following recommendations are proposed to ensure a thorough yet realistic salvage program.

Otay Member, Rosarito Beach Formation (Tot)

The lack of anticipated resource impacts during grading of this unit requires no mitigation measures.

San Diego Formation (Tsd)

The suggested high degree of resource impact during grading of this unit requires a number of mitigation recommendations:

- 1) A qualified paleontologist should be present at the pre-grade meeting to consult with the grading and excavation contractors.

2) A qualified paleontological monitor should be present at all times during the original cutting of previously undisturbed sediments of the San Diego Formation.

3.) The paleontological monitor should be allowed to temporarily direct, divert or halt grading to allow recovery of fossil remains.

4.) The developer and his grading contractor should have alternate grading sites in the project area outlined so that if diversion of equipment is necessary, that equipment can be put to work elsewhere.

5) Remains collected from the project area, with the landowner's permission, should be deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum or San Diego State University.

#### Lindavista Formation (Qlv)

The low resource impact anticipated during grading of this unit can be mitigated by periodic inspection of graded slopes.

#### Quaternary Alluvium, Slopewash and Soil (Qal)

As no impact is anticipated during grading of this unit, no mitigation measures are necessary.

#### 3.4.4 Analysis of Significance

With the implementation of the above mitigation measures no significant impact on paleontological resources will result.

### 3.5 Drainage

#### 3.5.1 Project Setting

The proposed East H Street extension lies within the Rice Canyon Drainage Basin. (Fig. 15) Numerous unnamed intermittent streams and tributary canyons drain into this catchment basin. Elevations in the stream bottom range from approximately 200 ft. at the west end to approximately 472 ft. at the east end. Therefore the flow direction within the drainage network will primarily be from the east to west, although some sections within the project area will have flow patterns west to east due to grading and fluctuations in topographic relief features.

The maximum runoff rate during a 50 year frequency flood would be approximately 826 cfs taking place on the western end of the project site. Maximum calculations show the runoff rate which would occur after the project and urbanization in the area are completed. The spatial distribution of the present and ultimate 50 year frequency storm flows in the drainage basin are shown on Fig. 18. Flow rates were taken from the Lawrence, Fogg, Floer and Smith Report (Fogg Report) prepared for the City in 1964. The Fogg Report calculations were done using the rational method and are filed in the City of Chula Vista Engineering Department.

Three types of drainage facilities will be constructed throughout the project area, underground conduit pipes, a lined open concrete channel and minor unlined channels. The dimensions of these pipes and channels will vary in size to conform with the volume of water flowing from each tributary canyon and stream.

Two proposed street crossings are located with or in the planned project area. Additional street crossings may take place in conjunction with future development projects. The two proposed crossings will be designed to carry present and future flows within the proposed road extension.

Figures 16 and 17 show the distribution and direction of the drainage flow in the basin.

#### 3.5.2 Project Impact

The area surrounding the East H Street extension is primarily unurbanized and is in its natural state. Steep topography, grading for the project and characteristics of the surrounding area will result in a considerable amount of sediment being transported into the basin during

heavy rainstorm periods. If large amounts of sediment were to accumulate in the channels and drainage pipes the effectiveness of the system would be reduced, increasing the chance of flooding in the area.

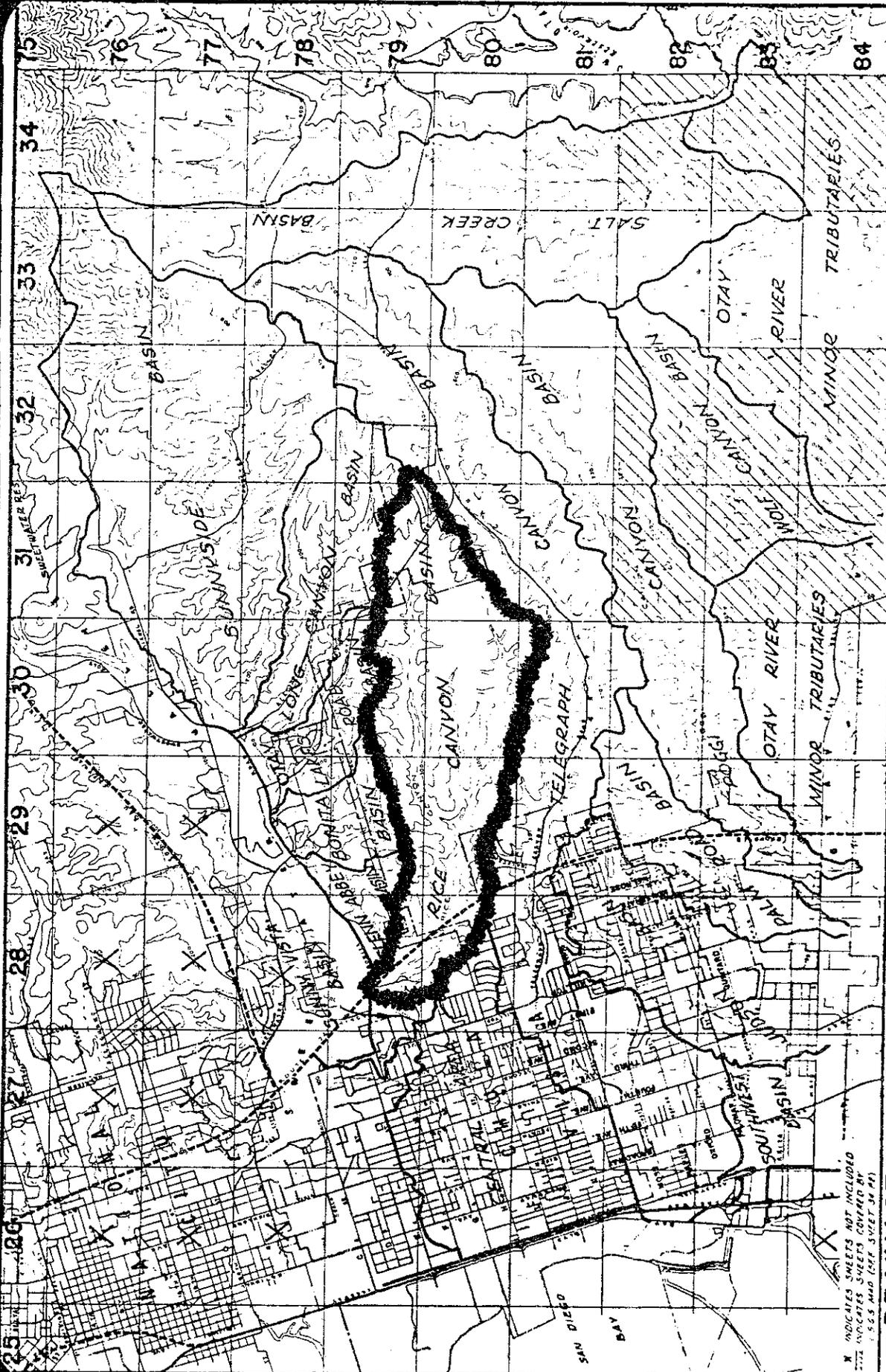
Construction of the drainage system will result in a loss of groundwater percolation. The present vegetation cover will be removed and replaced by paved surfaces which channel the water to another area for disposal. The impact should be considered minor due to the limited use of this groundwater table, therefore the long range impact will be of little significance.

### 3.5.3 Mitigation

Sedimentation is the most serious problem occurring in the drainage basin. The design and size of the drainage facilities will allow storm runoff and sediment to be carried through the system without accumulating in the pipes and channels. A large sediment trap is located west of the project site. This area will provide a catchment basin for sediment, reduce stream channel maintenance thereby reducing suspended load concentrations in the network. Therefore, specific engineering designs incorporated into the project for handling storm runoff will reduce the potential impacts to an insignificant level.

### 3.5.4 Analysis of Significance

The construction of the road and related improvements in the proposed project require the building of drainage facilities. Discharge systems will be designed to accommodate both present and future urban development within the area. Therefore the implementation of the project will not impose any significant impacts on the environment from flooding, sedimentation or degrade the water quality in the area.



**DRAINAGE BASIN MAP**  
 A SPECIAL STUDY OF STORM DRAIN FACILITIES

**CHULA VISTA CALIFORNIA**  
 A SUPPLEMENT TO THE CHULA VISTA GENERAL PLAN

LAWRENCE FOGG, FLOPER & SMITH  
 ENGINEERS  
 1000 G STREET, SAN DIEGO, CALIF.

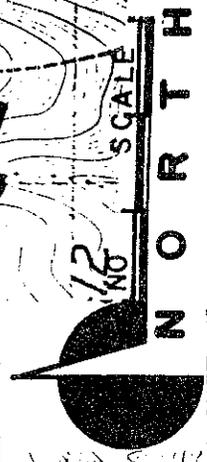
**RICE CANYON BASIN**

**FIGURE 15**

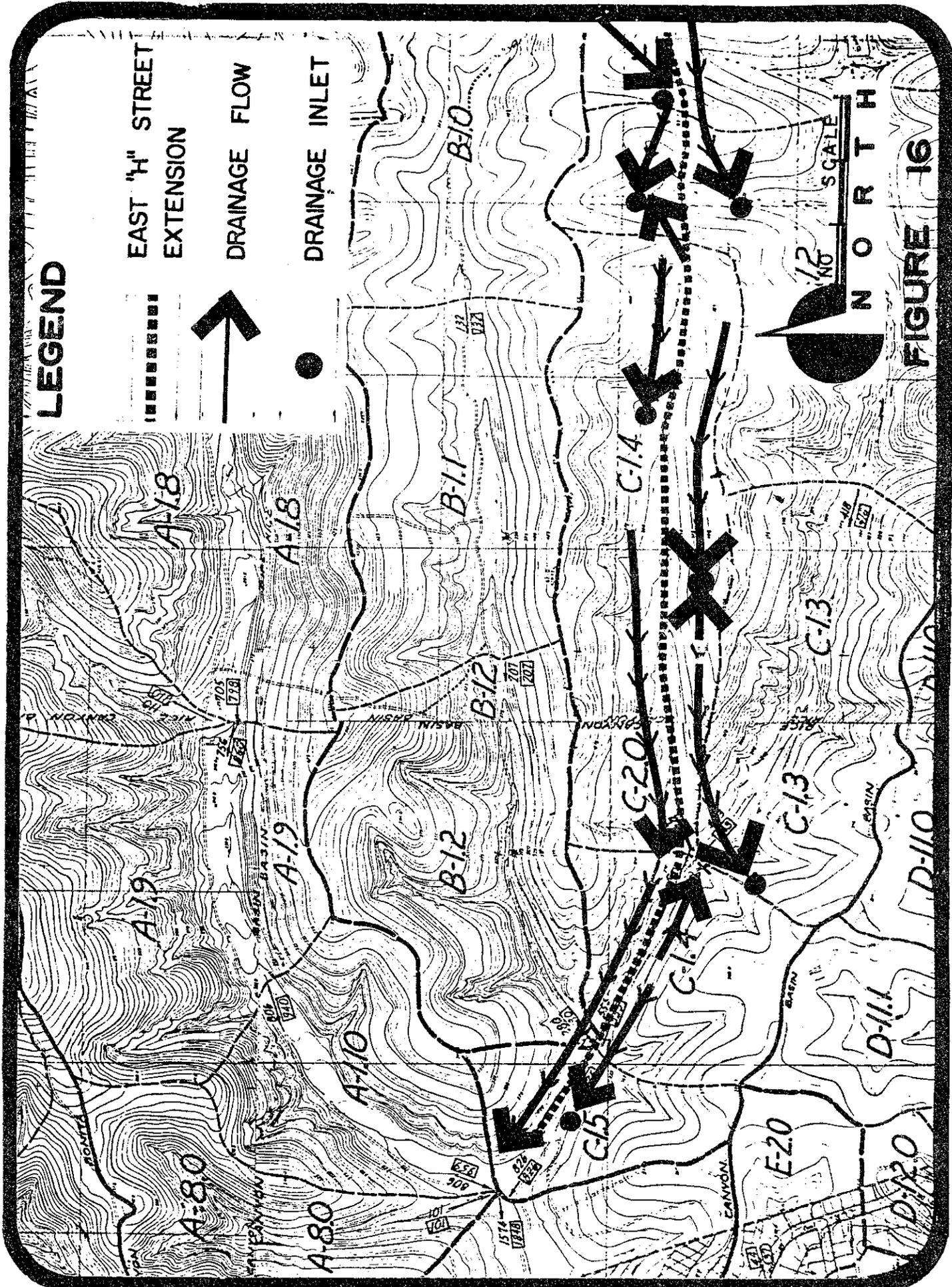
X INDICATES SHEETS NOT INCLUDED  
 Hatched areas SHEETS COVERED BY  
 1958 MAP (SEE SHEET 15-1)

# LEGEND

- EAST "H" STREET EXTENSION
- DRAINAGE FLOW
- DRAINAGE INLET



## FIGURE 16



# LEGEND

EAST 'H' STREET  
EXTENSION



DRAINAGE FLOW



DRAINAGE INLET

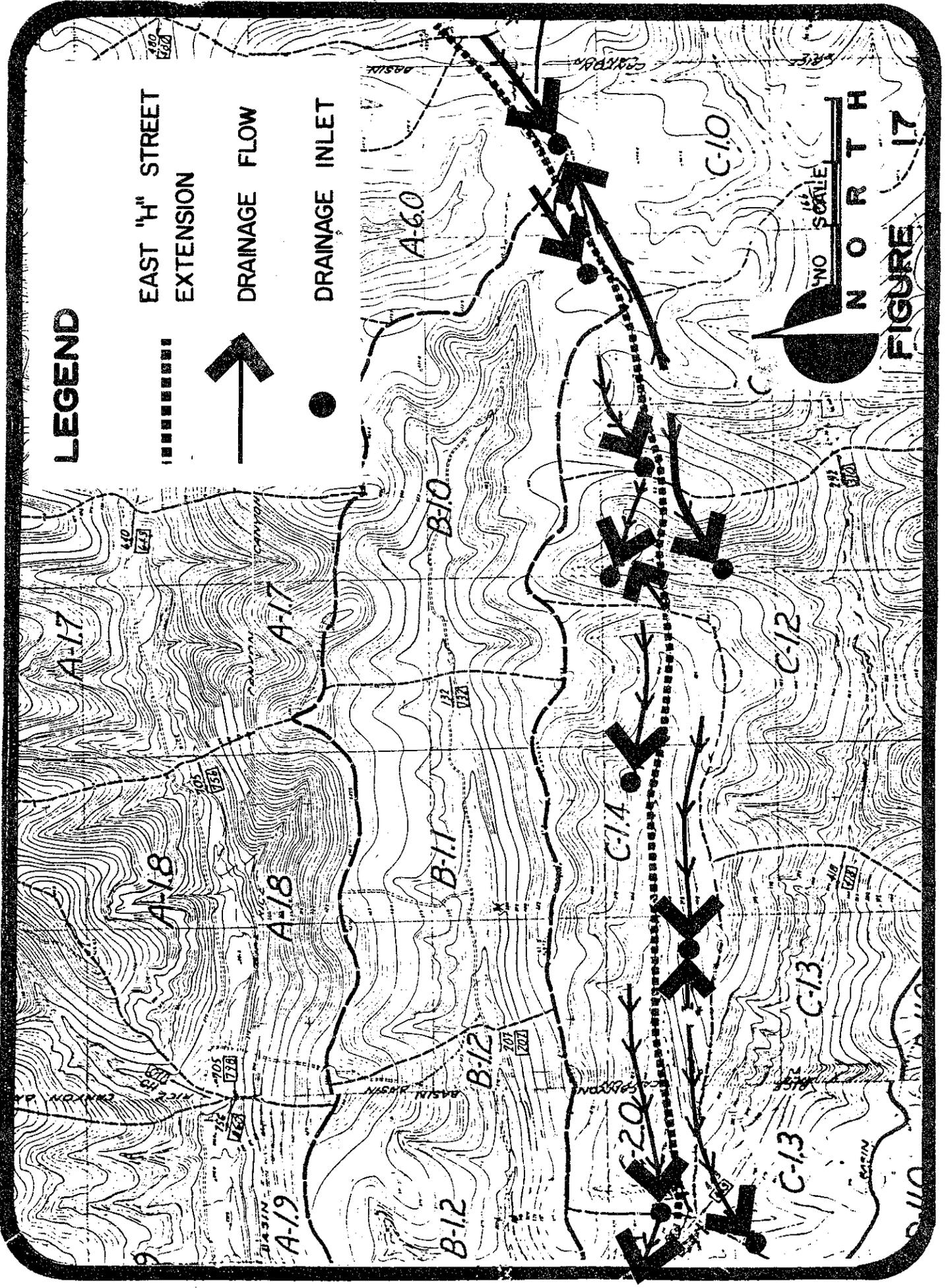
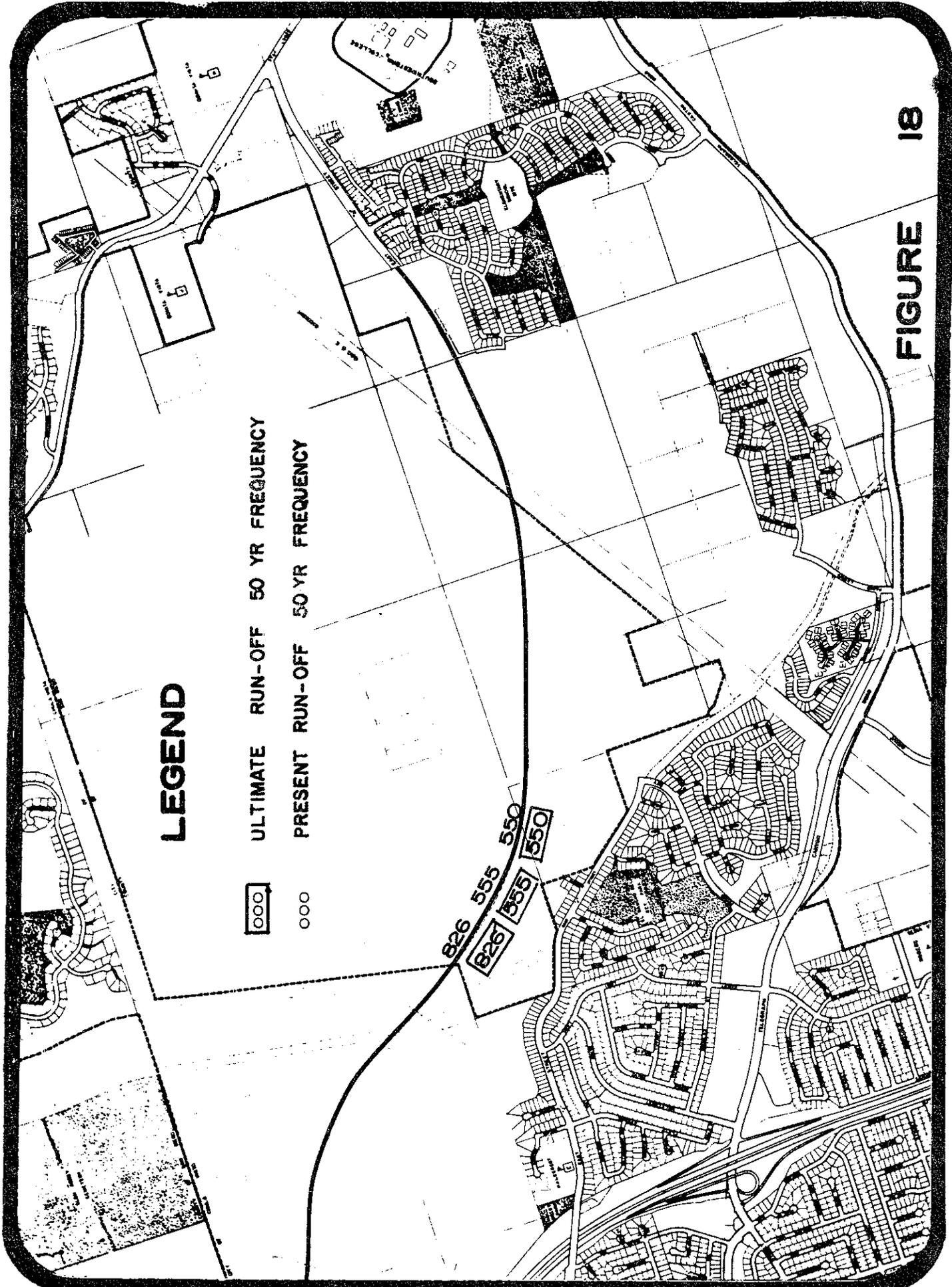


FIGURE 17

FIGURE 18

# LEGEND

-  ULTIMATE RUN-OFF 50 YR FREQUENCY
-  PRESENT RUN-OFF 50 YR FREQUENCY



### 3.6 Land Form

#### 3.6.1 Project Setting

The property is situated on a highly dissected mesa-like terrace. This mesa is a remnant of a generally westward sloping marine wave cut terrace that formed during the gradual emergence of the land surface from a large bay during a period of 2 to 40 million years ago. Subsequent development has cut numerous east to west narrow canyons into the former mesa surface.

The portion of East H Street evaluated in this report would be in one of the smaller of these east to west canyons.

#### 3.6.2 Project Impacts

In order that the project be implemented in accordance with the physical constraints of the property and in accordance with appropriate engineering standards for a prime arterial roadway, and considering additional constraints such as the existing improvements and the SDG&E transmission easement, implementation of the project will result in the creation of various cut and fill slopes along the right-of-way and the operation of a borrow site to generate necessary fill material.

The most significant cut slopes would be created at one of the proposed borrow sites. (See Figures 1 & 2) This will create a maximum cut of about 75 to 80 ft.

Fill material placed near the proposed intersection of East H Street and Paseo del Rey would be at a maximum depth of 70 ft.

There would be other smaller cut and fill slopes almost the entire length of the right-of-way. (See Figures 4 & 5)

#### 3.6.3 Mitigation

The visual impact of these cut and fill slopes can be mitigated through the following techniques.

1. The slopes should be designed to appear as natural slopes and large manufactured flat surfaces should be avoided.
2. Landscaping on permanent slopes should focus on materials which will blend with the natural vegetation of the site and should be drought resistant.

### 3.6.4 Analysis of Significance

Implementation of the above mitigation measures will reduce the adversity of the land form alteration, nevertheless, this will be a significant impact on the natural features of the area.

This grading is necessary however, to provide safety services and vehicular circulation throughout the El Rancho del Rey area.

### 4.0 Significant Environmental Effects which cannot be avoided if the project is implemented.

See Section 6.0 of EIR-78-2 El Rancho del Rey

### 5.0 Alternatives to the proposed Project

In the development of the El Rancho del Rey Specific Plan, various alternative circulation alignments were evaluated. This proposed alignment is that which was adopted by the City of Chula Vista.

(See Rice Canyon Conservation Guide - Sedway/Cooke Sept. 1977 and Section 7.0 of EIR-78-2 El Rancho del Rey)

### 6.0 Growth Inducing impacts of the proposed project

See Section 10.0 of EIR-78-2 El Rancho del Rey)

### 7.0 Effects found to be Insignificant

The following areas of environmental concern have been evaluated in the Master EIR-78-2 and insofar as the street extension is concerned, there will be no significant impacts or the Master EIR provides an adequate analysis.

Climate	Open Space/Parks
Air Quality	Police/Fire/Other Services
Noise	Utility Services
Historical Resources	Transportation/Access
Schools	Socio-economic factors