39.04

SOUTH POWAY
PLANNED COMMUNITY DEVELOPMENT PLAN
POWAY, CALIFORNIA

VOLUME 3-FINAL ENVIRONMENTAL IMPACT REPORT

SCH #84053008

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1.0 INTRODUCTION

This Environmental Impact Report (EIR) has been prepared in accordance with the requirements set forth in the California Environmental Quality Act, Section 21000 et seq. of the Public Resources Code, the revised 1984 CEQA Guidelines, and the city of Poway Procedures to Implement the California Environmental Quality Act.

The city of Poway is the lead agency responsible for preparation of environmental documentation pursuant to CEQA and is responsible for approval or denial of the project being proposed.

This EIR is an informational document designed to provide the reader with an objective and knowledgeable perspective for assessment of potential environmental effects associated with the proposed project and possible future projects requiring discretionary approval in the area. The analysis is presented in a concise and organized format to facilitate the reader's understanding. This report analyzes the impacts associated with the proposed development of a 2,500-acre area known as the South Poway Planned Community which incorporates residential, commercial/office, industrial/business park, and open space uses as well as the implementation of a key regional transportation link, the South Poway Arterial.

This document addresses specific topics of environmental concern. For each environmental topic the current setting is described, impacts and effects of several alternative development plans are identified, cumulative effects are considered, and possible mitigation measures for minimizing or eliminating negative impacts are recommended.

In several sections, baseline data is summarized from detailed technical reports and incorporated into the document for reading by the general public. These reports are assembled into technical appendices which follow the environmental impact report.

Substantial baseline data for the project has been prepared by PRC Engineering, project engineers for the Buehler Property Owners Association,

and is reflected in the Technical Appendices and graphic illustrations within this report. All such baseline data has been reviewed by the city's environmental consultant, and supplemented as needed with additional research.

2.0 SUMMARY OF IMPACTS AND MITIGATION MEASURES

This section summarizes the conclusions of this environmental analysis.

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	LANDFORM AND TOPOGRAPHY	
. Substantial landform alteration from grading will occur in the central highlands area. Canyon heads adjacent to development sites will be filled. Roadway construction will require substantial grading.	. Grading activities shall be in accordance with city of Poway Land Resource Conservation Element recommendations, Planned Community guidelines, and geotechnical engineering specifications; grading plans shall be included in the Development Plan and tentative map and submitted for review by the city of Poway. . The PC Development Plan and text shall include detailed grading design guidelines incorporating contour grading and minimum grading methods.	. Mitigated to insignificant level.
	GEOLOGY, SOILS, AND MINERAL RESOURCES	
. Specific areas (eg., compressible alluvium and Friars Formation) are subject to adverse geologic conditions and may require corrective engineering measures. Development and existing small earth-fill dams may be subject to groundshaking from earthquake activity.	. The Development Plan shall include detailed grading standards. Detailed engineering, geologic, and soils investigations should be submitted with subarea plans or tentative maps for review by the city of Poway. Subsequent studies shall address corrective engineering measures.	. Mitigated to insignificant level.

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
. Removal of vegetative cover from highly erosive soils will subject soils to increased erosion potential until re-covered. Highly expansive soils will require engineering mitigations.	. Short-term and long-term soil erosion control measures shall be implemented.	. Mitigated to insignificant level.
. Project development without beneficial use of the underlying MRZ-2 aggregate resource would represent a potentially significant direct and cumulative loss of this regional resource.	. A reclamation plan for the existing and expanded aggregate mining operation should be prepared in accordance with the city surface mining ordinance.	. Significant adverse impacts. (partially mitigated with recommended recovery option)
	HYDROLOGY AND WATER QUALITY	
. Flow patterns and channel locations and features will be modified. Significant increases in stormwater runoff volumes and peak flows will occur with development. Existing facilities will require improvements.	. Specific drainage and flood control designs in conformance with city of Poway Water Resource Conservation and Flood Hazard Management policies shall be submitted in conjunction with tentative maps/site plans. The project shall comply with local, state, and federal water conservation and flood hazard management regulations and recommendations.	. Mitigated to insignificant level.
. Creation of impervious surfaces will reduce the amount and alter the location of groundwater recharge.		. Insignificant adverse impact. (groundwater)
. Surface water quality will be degraded at the project site and downstream due to increased urban runoff pollutants and increased sediments.	. Long-term erosion and sediment control shall be provided by proper placement of siltation basins, downdrains, terrace drains, slope revegetation and maintenance of riparian areas; stormwater management plans shall be developed to reduce water quality degradation from urban runoff.	. Mitigated to insignificant level. (urban runoff)

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	BIOLOGICAL RESOURCES	
. Approximately 50 percent of the vegetation onsite will be removed and the associated wildlife will be removed or displaced. Some sensitive habitats and a number of sensitive botanic species, including coast barrel cactus, will be removed. Wildfire potential will increase at the open space/development boundary.	. The Development Plan shall include standards and guidelines for preservation and management of open space and significant riparian areas. In order to minimize biological impacts, design of and standards for the site and for landscaping shall be approved by the city. . Extensive common open space areas will be maintained by the Master Property Owners' Association; open space access control methods shall be developed and implemented to minimize habitat disruption. . A spring biological survey should be conducted to confirm the presence or absence of specific sensitive species.	. Mitigated to insignificant level.
	CULTURAL RESOURCES	
. Six archaeological sites located in or near areas proposed for development or roadways could be impacted by grading or construction. Of Native American concern is a stand of Juncus which may be impacted by the development.	. Site specific avoidance, or testing and excavation measures are recommended for potentially impacted sites; compliance shall be demonstrated in conjunction with tentative map/site plan, or road improvement plan submittals. Prior to the issuance of a grading permit, specific treatments for cultural resources	. Mitigated to insignificant level.

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	identified during construction shall be prepared by a certified archaeologist and approved by the city. Additional surveys for potential indirect impacts should be required with subsequent detailed plans.	
	LAND USE	
. The project will significantly alter the rural, open space character of the site with the conversion of vacant land to residential, commercial and industrial land uses. Potential for land use conflicts is minimized with proposed perimeter RR-A, RR-C and open space uses. The project will significantly increase the amount of employment-generating land uses within the city of Poway and along the I-15 corridor.	. The project shall comply with city General Plan policies.	. Mitigated to insignificant level.
	SOCIOECONOMICS	
. The project will generate an estimated 272 dwelling units with approximately 816 residents at buildout. Employment opportunities are estimated at 12,300 industrially related jobs and 900 commercially related jobs.	. No mitigation measures are proposed.	. Significant overall positive impact.

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	TRAFFIC AND CIRCULATION	
. The project is estimated to generate up to 73,160 daily trips (includes 237 existing nearby residential units); of these daily trips, approximately 54,235 are estimated trip attractions. Various local road design capacities will be exceeded either with or without the proposed project.	. The basic community design of the South Poway Planned Community, including trip-attracting industrial and commercial/office uses, will help to reduce the imbalance of peak hour flows currently occurring in and out of the Poway community.	. Significant cumulative adverse impact.
. Daily volumes on Poway Road will significantly exceed design capacity as a major arterial, both with or without South Poway Planned Community. Reclassification to a primary arterial will require additional right-of-way acquisition and building displacements. However, the over-capacity conditions along Poway Road are minimized under SANDAG Route 125 North Location Analysis Alternatives 8 and 12 with the potential connection of the South Poway Arterial to the Mercy Road interchange at Interstate 15.	. The existing city of Poway Circulation Element and other appropriate circulation elements should be amended to provide for the construction of the Alternative 8 circulation system as presented in the Route 125 North Location Analysis.	. Significant cumulative adverse impact.
	. Despite right-of-way acquisition requirements, consideration should be given to reclassifying Poway Road as a primary arterial between Interstate 15 and Garden Road. The South Poway Arterial should be classified as a major arterial between Mercy Road and Pomerado Road, and as a primary arterial between Pomerado Road and the extension of Community Road, and as a major arterial between Community Road and Sycamore Canyon Road. Based on project-level studies, the segment between Pomerado Road and Community Road could be reduced to a major arterial with development of a secondary access to Pomerado Road.	

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
. Development of a secondary project access to Pomerado Road south of Metate Road could result in significant reductions in traffic volumes both on the South Poway Arterial between Pomerado Road and the Community Road extension, and on Pomerado Road itself along the segment between the proposed secondary access intersection and the South Poway Arterial.	. Improvements to two critical intersections, Poway Road/Pomerado Road and Poway Road/Community Road, should occur early in the development process, prior to development of Subareas 1 or 2. . Detailed traffic studies focusing on local street locations and sizing, and roadway access provisions shall be provided at subsequent levels of planning.	. Mitigated to insignificant level.
. Buildout of the project can be expected to generate demand for alternative transportation mode facilities and services. Bus turnouts, "park-and-ride" facilities, and shelters at transfer points may be required onsite.	. Onsite circulation improvements shall be provided by the project in accordance with South Poway Planned Community Development Plan standards; the project should contribute toward future offsite improvements in proportion with its anticipated use of impacted facilities. . Alternative modes of transportation shall be encouraged through provision of bike lanes and public transit accommodations. Employers should be encouraged to support "flextime" or nontraditional work scheduling, and ride-sharing in order to lighten peak hour traffic volumes. . In employment areas, onsite transit coordinators should be required to develop and implement carpooling/vanpooling programs; preferential parking spaces (10%) should be provided.	. Mitigated to insignificant level.

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	AIR RESOURCES	
. Short-term fugitive dust and exhaust emissions will occur during construction and grading. Long-term stationary and mobile source emissions will occur both onsite and offsite.	. The project shall comply with all rules and regulations of the SDAPCD. Dust control measures, vehicular emissions control measures, energy conservation practices, and various design measures shall be implemented. An analysis of microscale air quality shall be performed pursuant to project specific traffic studies.	. Signigicant cumulative adverse impact on regional air quality (absent a revision to the Regional Air Quality Strategy).
	ACOUSTIC ENVIRONMENT	
. Noise impacts associated with the project include short-term construction noise and long-term increases in ambient noise levels, primarily from increased vehicular traffic. Sensitive noise receptors may be developed near existing noise sources.	. The project shall comply with the city noise ordinance. Buffers, barriers, and attenuations shall be utilized to reduce noise levels. Prior to the issuance of building permits, an acoustic authority shall perform a noise analysis and evidence of attenuation shall be submitted for city approval.	. Mitigated to insignificant level.

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
PUBLIC SERVICES AND UTILITIES		
. The proposed development will generate significant long-term demand for local services, facilities, and utilities. Included are fire, police, electricity, natural gas, telephone, solid waste, water and wastewater, parks, schools, and hospitals.	. A number of mitigation measures are proposed including conservation measures, adequate access, developer provided infrastructure and developer's fees.	. Significant cumulative adverse impact on regional water supplies (other services impacts mitigated to insignificant levels).
AESTHETICS		
. Short-term visual impacts include phased grading and construction activities.	. Road improvement plans should ensure that cut and fill slopes are contoured and aligned for minimum topographic disturbance. The Development Plan design guidelines shall specify arterial buffer widths, landscaping, and building setbacks in accordance with the city's Scenic Highways Element.	. Mitigated to insignificant level.
. Long-term impacts include substantial landform modification, loss of vegetation, introduction of ornamental vegetation, introduction of urban development and roadways. Landform alteration associated with major collector and/or arterial road access points will be visible elements of the project; the project will also be visible from vantage points along Pomerado Road, at greater distances from hills to the east, points on Scenic Highway 67, and from residences at higher elevations in the north portion of Poway.	. The north- and south-facing slopes shall be retained in a natural state for their visual quality and screening effect. At minimum, project perimeter design shall include contoured fill slopes, maximum use of native plant species, and vegetative screening of potentially visible edges of the loop road and other perimeter roads.	. Mitigated to insignificant level.

SUMMARY OF IMPACTS

POTENTIAL IMPACTS	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
. The project will incrementally contribute light sources which affect the night sky.	. Internal project design standards shall include landscaping throughout the project, underground utilities, low-reflective building materials, and architectural screening of mechanical equipment. Architectural design, building materials, signage, and exterior lighting shall be subject to strict harmonious design controls specified in development standards or subsequent detailed plans. Low pressure sodium lamps and lampshields should be used when appropriate to respect night sky requirements of local observatories.	. Mitigated to insignificant level.

3.0 PROJECT DESCRIPTION

3.1 REGIONAL SETTING

The South Poway Planned Community is located in the city of Poway in the western coastal valley of San Diego County. The area lies approximately thirteen miles inland from the Pacific Ocean between State Road 67 and Interstate 15. To the east and south is Camp Elliott Naval Reservation. The project area is located between the communities of Rancho Bernardo, Mira Mesa, Tierrasanta and Lakeside (Exhibit 1). Many city of Poway residents (55 percent of the resident labor force) commute approximately fifteen miles southwest to San Diego employment centers.

Temperatures in the region are characteristically moderate and the average rainfall in the area gives rise to the coastal sage that intermingles with chaparral on the foothills and steeper slopes in the region.

3.2 LOCAL SETTING

The city of Poway incorporated in December 1980 as a predominantly residential community. Its approximately 23,600 acres are still predominately open space (75 percent), but the city's population increased 240 percent from 1970 to 1980. Today, Poway is home to about 37,000 people (1970 and 1980 U.S. Census). The residents of Poway primarily live in single-family, large-lot homes, are young or middle-aged, white, and employed professionally. The city of San Diego flanks Poway's southern and western borders with the exception of a small southwestern corner. The remainder of the city of Poway is bordered by San Diego County (Exhibit 2).

The 2,500-acre proposed project site extends in an east-west direction along the southern portion of the city. The primary topographic features of the project area are a series of steep, rocky ridges covered with mostly southern coastal sage scrub and some chaparral and grassland. It is dotted with a few homes which lend a rural, ranch character to the area.

The east-west trending ridges bisect Poway Creek's and Beeler Creek's drainage basins, with the northern portion of the property draining into Poway Creek and the southern portion draining into Beeler Creek. Scores of dry canyons with finger-like projections dissect the area; a few stock-watering ponds are located on these hillsides. Elevations range from approximately 1,047 feet mean sea level (MSL) near the east end of the site to approximately 453 feet MSL adjacent to the west end of the site.

3.3 LOCATION

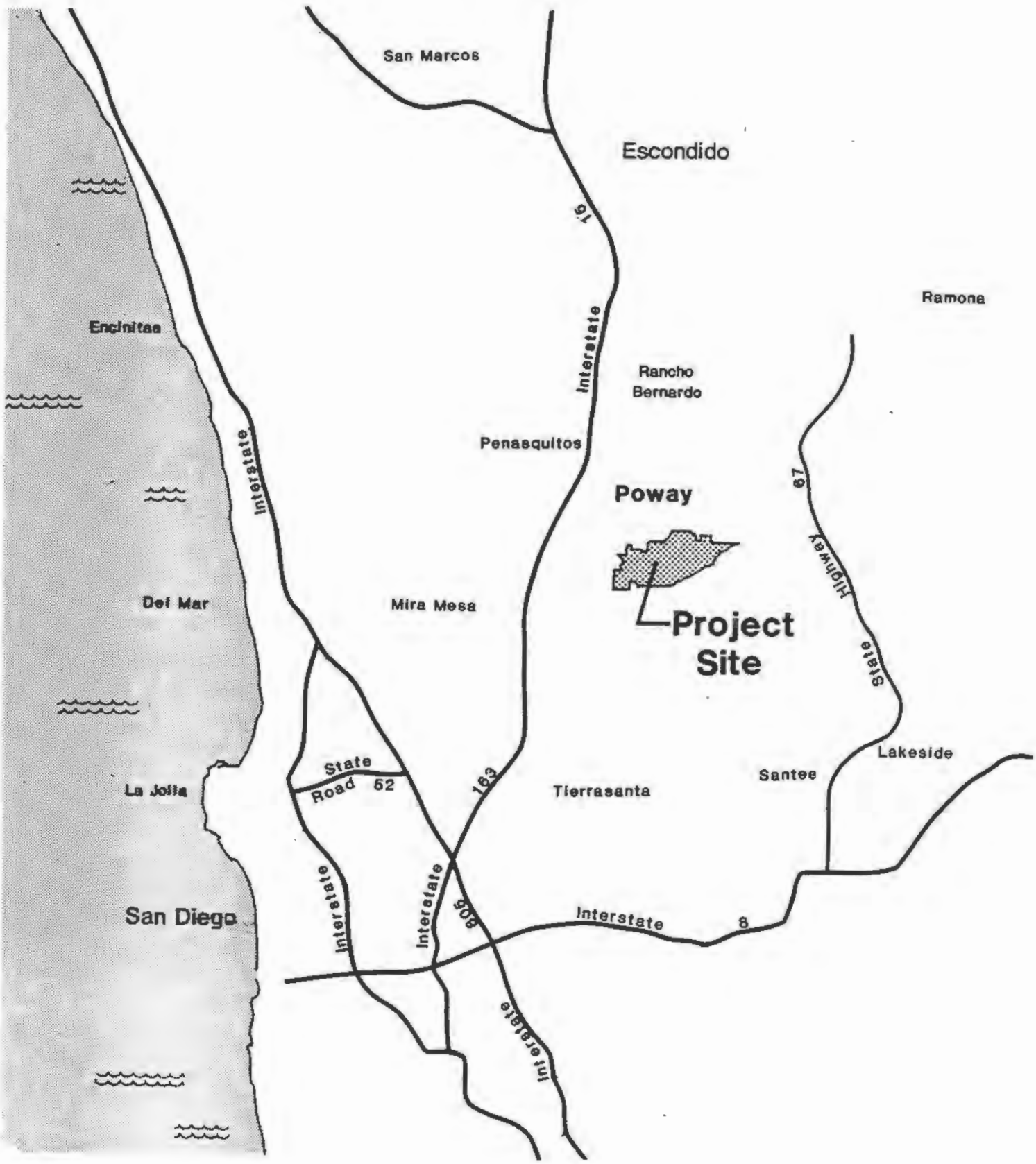
The project area is situated in the southern portion of the city of Poway. Beeler Creek and Beeler Canyon Road form the southern border of the property. The eastern and western borders are defined by Sycamore Canyon Road and Pomerado Road, respectively. To the north, Metate Lane and existing development along Poway Road form the project boundary. Exhibit 3 illustrates the location of the proposed South Poway Planned Community. Exhibit 4 gives an aerial view of the project site.

3.4 OWNERSHIP

The South Poway Planned Community property is owned by 43 individuals and corporations collectively known as the Buehler Property Owners Association. Of these 43 owners, eleven possess approximately 78 percent of the total acreage. The largest single-ownership parcel is 661 acres. Most parcels are considerably smaller and there are several ownerships of less than three acres. Exhibit 5 illustrates ownership boundaries within the proposed project area and lists the property owners within the proposed project boundaries.

3.5 PROJECT COMMUNITY PLAN

The proposed project consists of the development of an approximately 2,500-acre planned community which incorporates a variety of land uses into an organized, comprehensive community. The project proposes a mix of light industrial and residential land uses with ancillary commercial uses. Several roadways are proposed in conjunction with the project including construction of a regionally planned highway (the South Poway Arterial),



Regional Location
SOUTH POWAY PLANNED COMMUNITY

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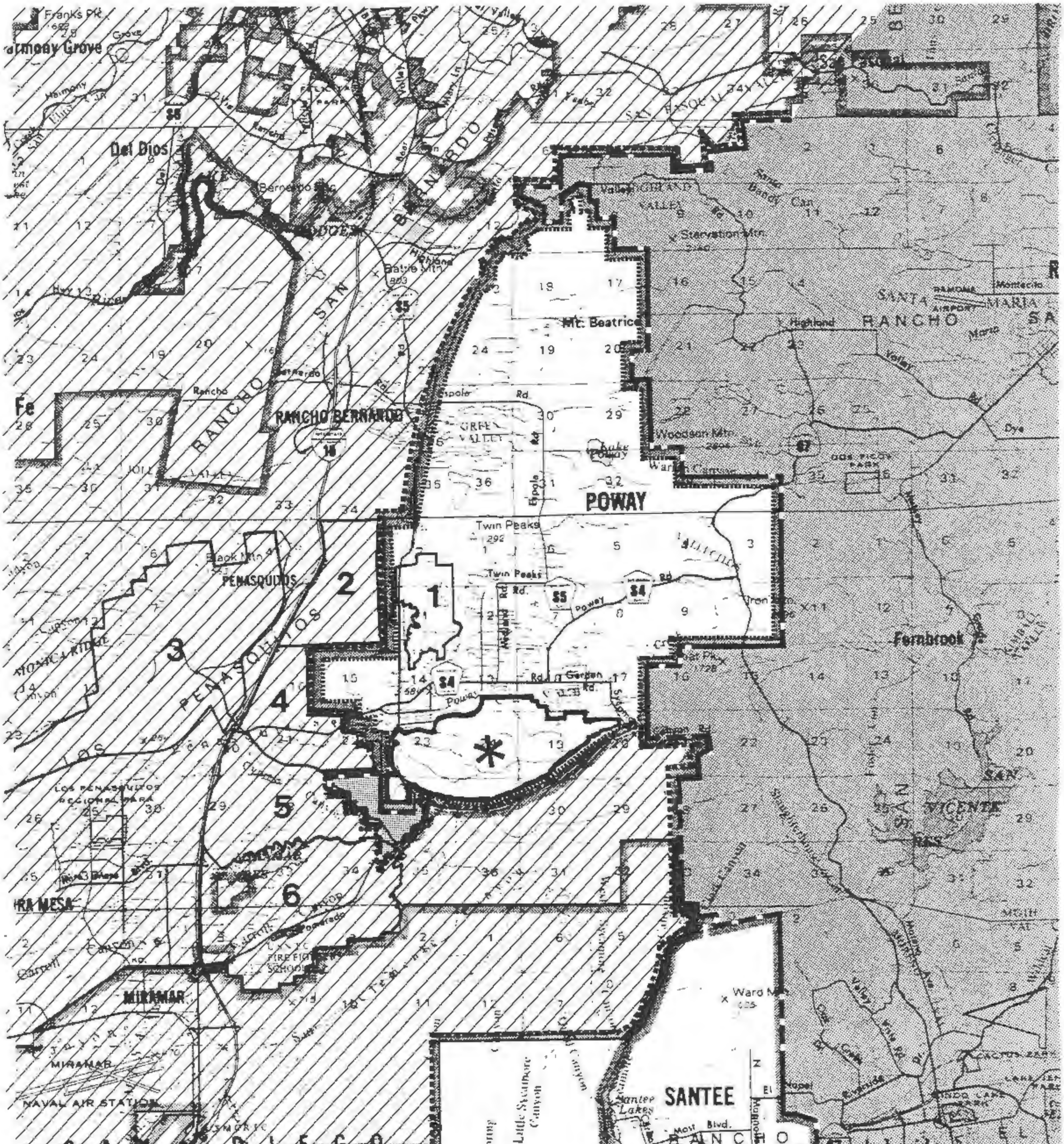
EXHIBIT 1



City of Poway

City of San Diego

County of San Diego

* South Poway Planned Community

1 Rancho Arbolitos

2 Penasquitos East

3 Carmel Mountain Ranch

4 Sabre Springs

5 Miramar Ranch North

6 Scripps Miramar

Project Vicinity
SOUTH POWAY PLANNED COMMUNITY

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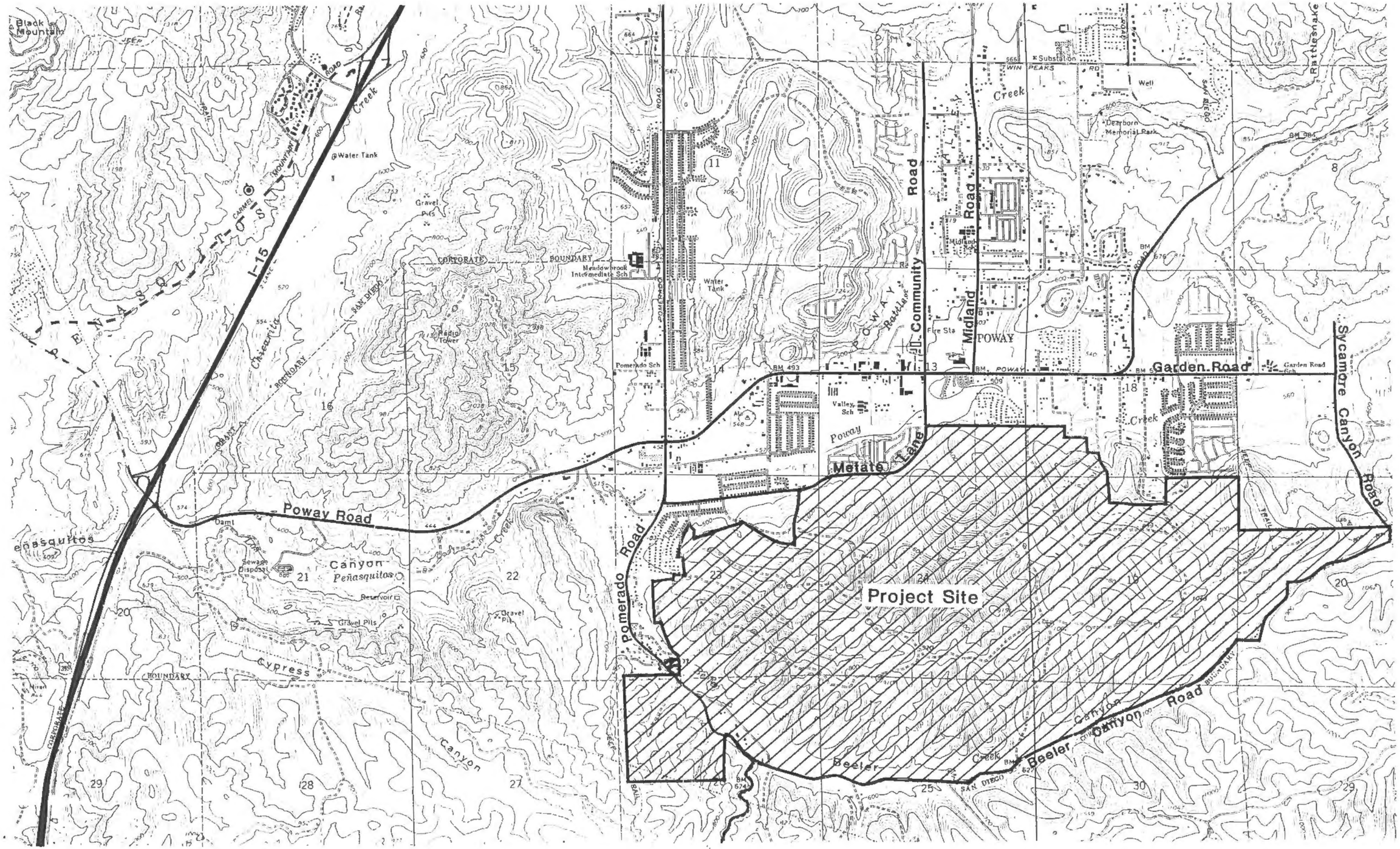
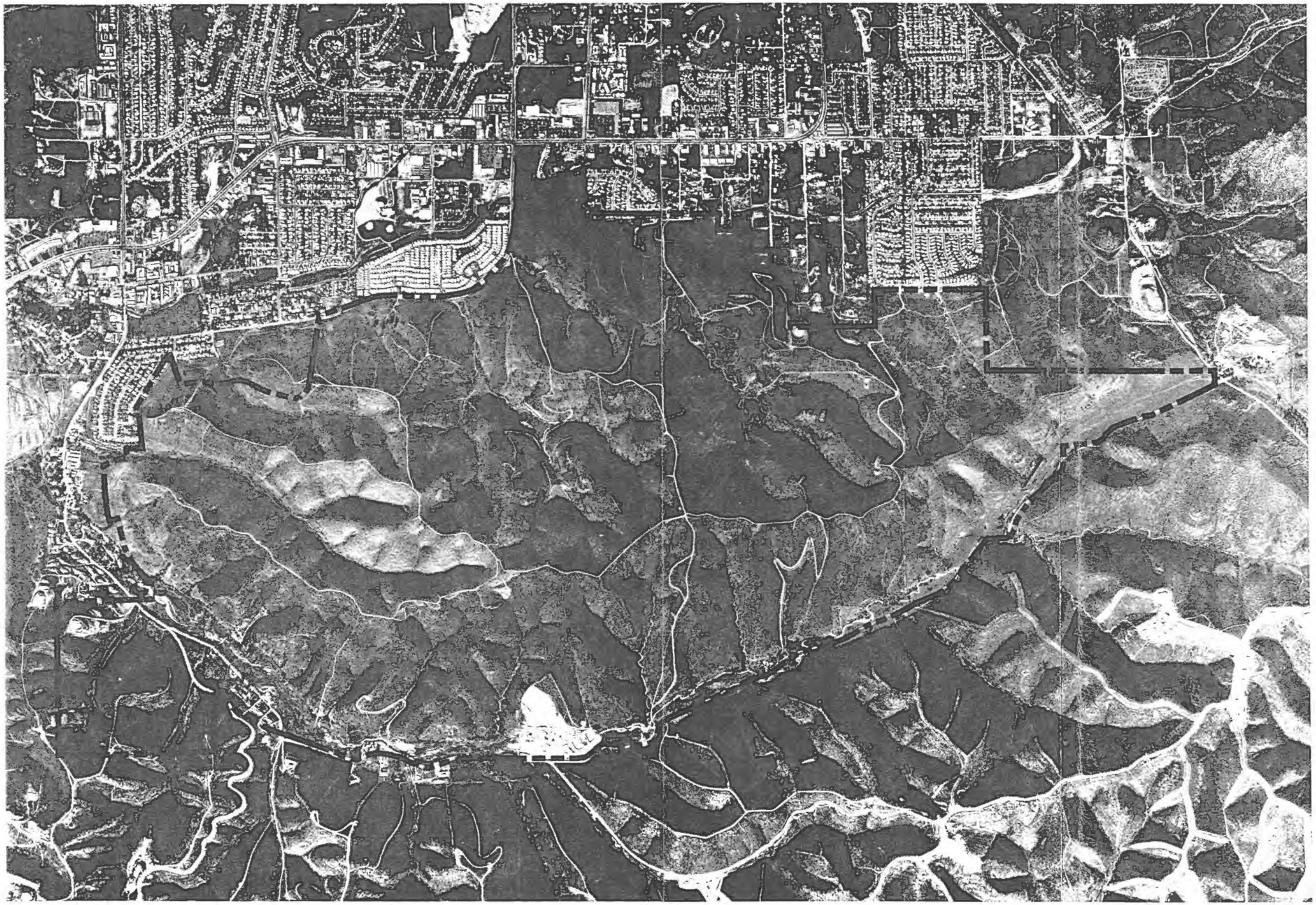
EXHIBIT 2



Project Location
SOUTH POWAY PLANNED COMMUNITY

EXHIBIT 3



Aerial Photograph

SOUTH POWAY PLANNED COMMUNITY

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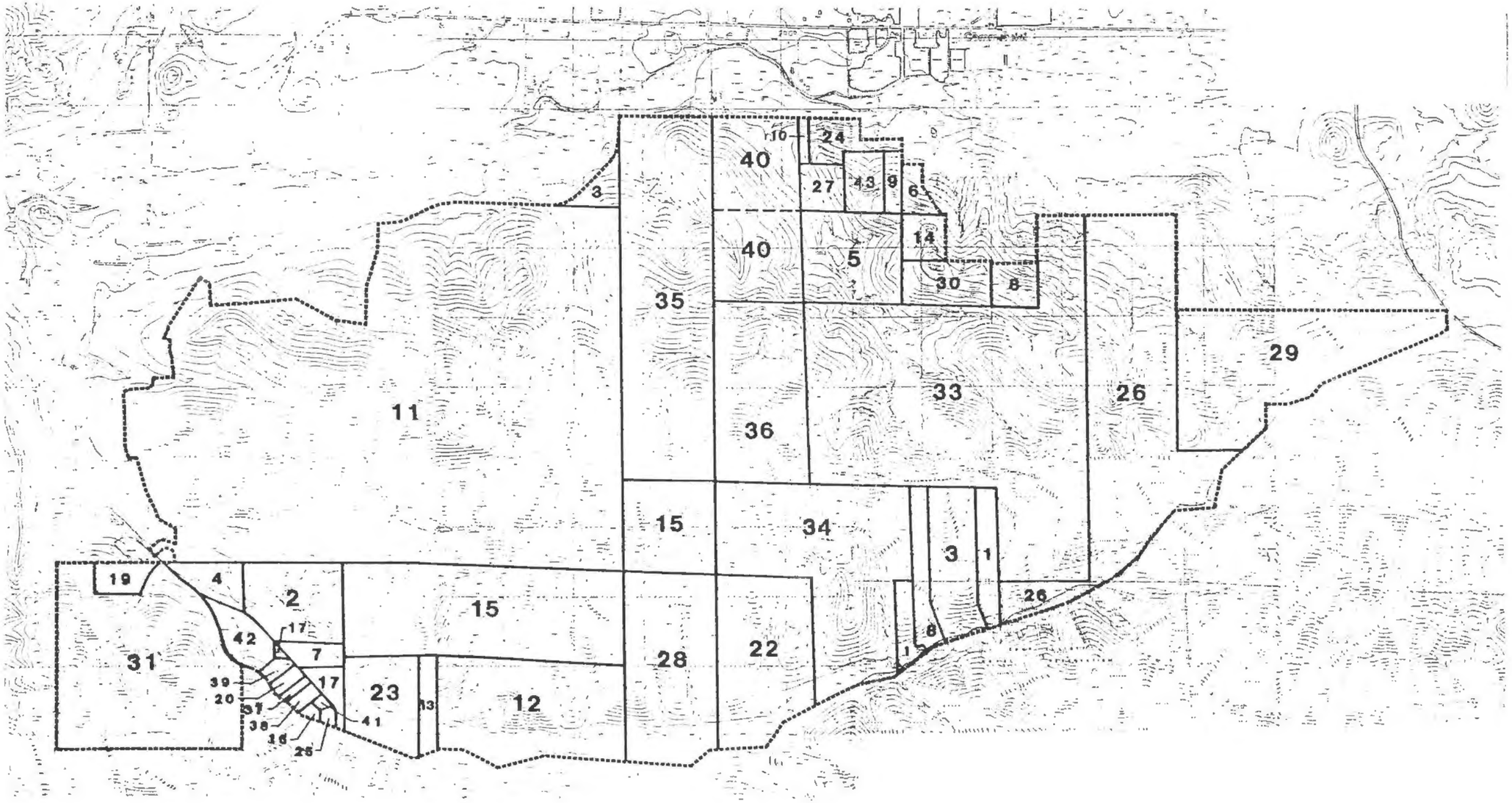
EXHIBIT 4



OWNERSHIP LIST

1. ABBOTT, Frank F. & Mildred G.
2. ALLEN, Richard B. & Yvonne M.
3. ANDERSON, George W. & Evelyn S.
4. AUSTIN, Richard D.
5. MOHLING, R. & F.
6. BOORIAKIN, T. & W.
7. NAUS, Bruce M. & Katheyn E.
8. DAHLIN, C. & M.
9. ENGLANDER, William R. & Alice, Trs.
10. FEASEL, R. & M.
11. FIRST CAULFIELD DEVELOPMENT COMPANY
12. FUNK, William E.
13. GEIGER, Barbara H.
14. GLADKOFF, Oleg & Faith E.
15. GENSTAR DEVELOPMENT, INC.
16. HARTIN, Larry S. & Susan L.
17. HEIMPEL, Robert & Hermandina
18. HYLAND, Margaret E.
19. KENYON, Oscar L. & Nellie C.
20. LARSEN, Lyle & Bernita
21. LONGI, R. & P.
22. LYONS, Stanley
23. MACHANIS, Victor L. & Joann A.
24. MAYERSKI, A. & K.
25. McDOWELL, Loren L. & Patrician R.
26. McLAUGHLAN, Charles L.
27. NIX, H. & M.
28. PADRE SAND & GRAVEL (Lanzdo)
29. PALLAS, Freida E.
30. PIERSON, Frank E. & Betty L.
31. POWAY DEVELOPMENT CORPORATION (TEXAS INDUSTRIES, INC.)
32. POWAY ROYAL MOBILE ESTATES
33. POWAY VENTURES
34. POWAY VIEWS
35. SOUTH POWAY ASSOCIATES, LTD.
36. REED, M. C.
37. REXFORD, Paul W. & Elizabeth F.
38. ROSTVET, James L. & Ardith M.
39. ENNISS, Gregory & Dutra-Enniss, Karen
40. SOPHISTICATED INVESTMENTS SECURITY FIRST NATIONAL CORPORATION
41. WALTERS, Rhodes M. & Ruth H.
42. WILLIAMS, Leland L. & Margaret
43. WOODY, Amos & Ann

Note : List Compiled March, 1985

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Ownership Map

SOUTH POWAY PLANNED COMMUNITY

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EXHIBIT 5

and a loop road with connectors which encompass and link the centrally located industrial areas. Open space for recreational uses and buffering purposes is also planned for the project.

Table 1 lists the proposed land uses for the project and Exhibit 6 illustrates the community plan for the proposed project.

Table 1

SOUTH POWAY PLANNED COMMUNITY LAND USE SUMMARY

Land Use	Dwelling Units	Net Acres
Commercial/Office	-	28
Industrial Park	-	149
Light Industrial	-	495
Total Industrial		644
Rural Residential A	46	571
Rural Residential C	91	211
Residential Single Family 2	85	97
Residential Mobile Homes	50	8
Total Residential	272	887
Open Space	-	481
Remaining[1]		±460

PHASING

Phasing of the proposed project will span 15 to 20 years. However, a specific phasing plan relative to subarea development or roadway construction is not currently available.

1 Remaining acreage is undesignated and will be used for any combination of open space, residential use, road rights-of-way or slope.

The preliminary phasing schedule was completed to evaluate the fiscal impacts of the project. This schedule outlines steady incremental industrial development spanning seventeen years, commercial increments extending over sixteen years and residential development completed in the first twelve years.

ALTERNATIVES

For comparison purposes, two alternatives to the proposed project were devised and studied. Alternative (1) is a low intensity development composed of primarily residential land uses at low densities. Alternative (1) requires minimal road construction at the site. Alternative (2) represents the proposed project as described in Table 1. Alternative (3) is a high intensity planned community development comprised of industrial, commercial and residential land uses and a complex roadway network. This alternative proposes industrial and commercial acreage similar to the proposed alternative. Residential land use is greater in density and number of units than the proposed alternative. A statistical summary of land uses for the alternatives to the proposed project is tabulated below.

Table 2

ALTERNATIVES (1) AND (3) LAND USE SUMMARY

Land Use	Dwelling Units	Net Acres
Alternative (1) - Low Intensity		
Rural Residential A	121	2,020
Rural Residential C	137	265
Total Residential	258	2,285
Alternative (3) - High Intensity		
Commercial/Office	-	37
Industrial/Business Park 1	-	147
Industrial/Business Park 2	-	255
Industrial/Business Park 3	-	277
Total Industrial		679

Table 2 (cont'd)

Rural Residential B	9	18
Rural Residential C	9	10
Residential Single Family 2	152	75
Residential Single Family 7	520	75
Residential Mobile Homes	50	9
Total Residential	740	187

Exhibits 36 and 37 illustrate conceptual land use plans for Alternatives (1) and (3).

3.6 OBJECTIVES

The general objectives of the South Poway Planned Community are the following:

1. To utilize the planned community approach to create a cohesive mixed-use community, including residential, industrial, commercial and open space uses;

2. To create a strong base of employment-generating land uses;

3. To maintain a rural and aesthetic character for the area;

4. To provide a safe and efficient local circulation system and to assist in regional arterial linkages;

5. To provide public services, facilities, and amenities which are commensurate with the level of development proposed;

6. To pursue an orderly long-range phasing program (ie., 20 years) which reflects marketing realities;

7. To implement the goals and objectives of the city of Poway Comprehensive Plan and Land Use Plan while securing viable uses and economic return for the property owners.

3.7 DISCRETIONARY APPROVALS

Development of the South Poway Planned Community requires submittal by the project proponents of a Development Plan and Text, pursuant to Planned Community Regulations, and subsequent approval by the Poway City Council. The Development Plan will establish and define land uses, but non-development areas will retain the city's base zone designations.

3.8 GENERAL PLAN AND ZONING STATUS AND CONSISTENCY

3.8.1 Current Zoning Status and Proposed Designations

The entire project area is currently zoned Planned Community (PC). Allowable development within a PC zone is established by a Development Plan Text approved by the Poway City Council. The Development Plan Text will establish and define specific use lists; non-development areas will retain the base zones of the city's Land Use Plan (Exhibit 7).

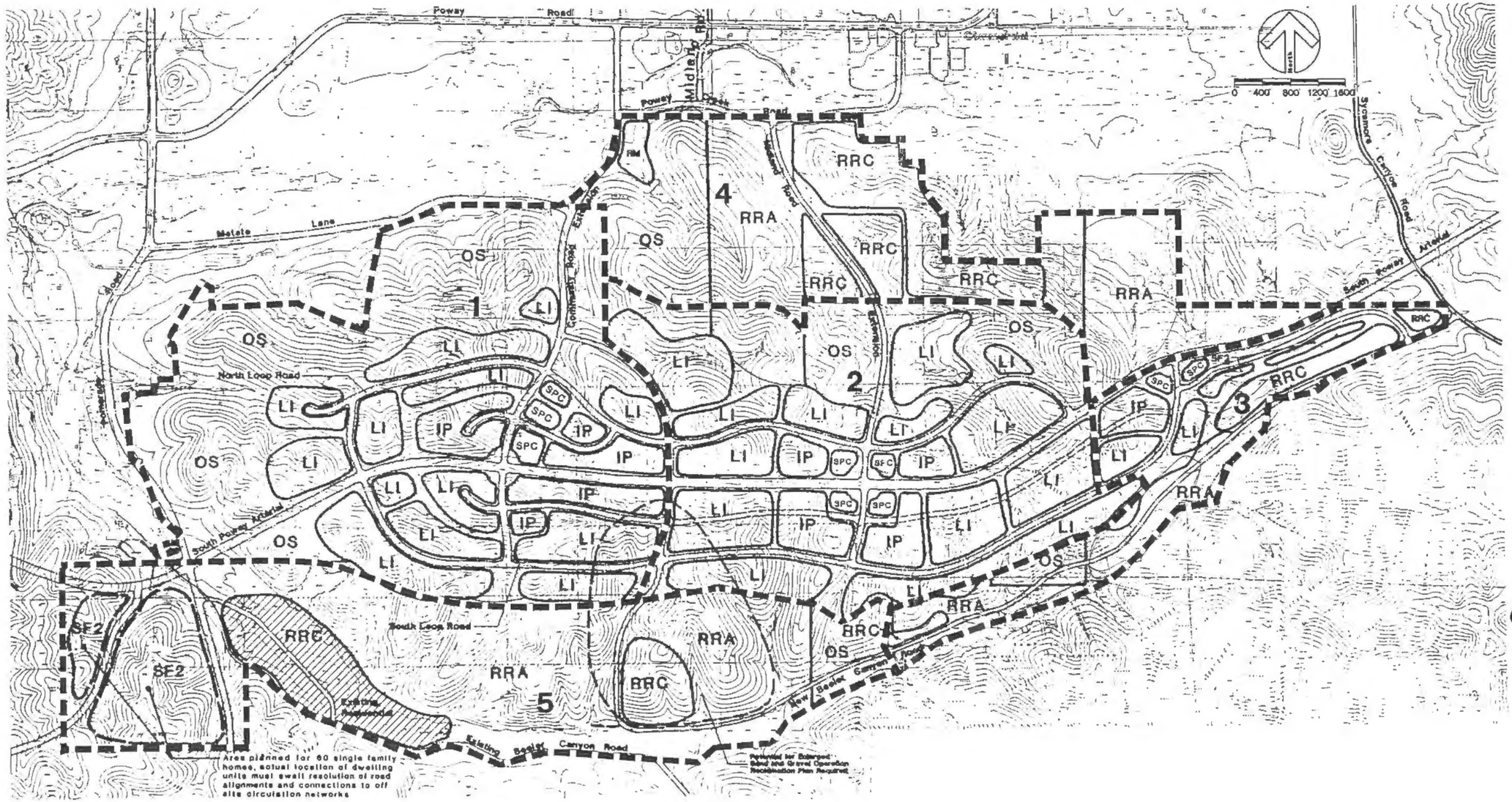
Current base zones in the South Poway Planned Community are Residential Rural-A (RR-A) with small border sections of RR-C. RR-C maximum density is one unit per 1, 2, or 4 net acres; RR-A maximum density is one unit per 4, 8, 20, or 40 net acres.[1]

The proposed development involves construction of 28 acres of commercial/office uses, 644 acres of industrial/business park uses, 887 acres of residential uses and 481 acres of open space (Exhibit 6). The proposed development is in full compliance with current zoning status.

3.8.2 General Plan Consistency

The city of Poway's Land Use Plan serves as a summary of the General Plan and embodies its nine mandatory elements: Land Use, Circulation, Housing, Open Space, Conservation, Noise, Scenic Roadways, Safety, and Seismic Safety, as well as seven optional elements: Parks and Recreation, Public

1 Minimum lot sizes are determined by average slope and community water service availability.



LEGEND

South Poway Commercial	SPC
Industrial Park	IP
Light Industrial	LI
Rural Residential A	RRA
Rural Residential C	RRC
Single-Family 2 (1-2 DU/Net Ac.)	SF2
Residential Mobilehomes	RM
Rural Residential C (existing residential)	RRC
Open Space	OS
Subarea Boundaries	

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Community Plan, Proposed Alternative

SOUTH POWAY PLANNED COMMUNITY

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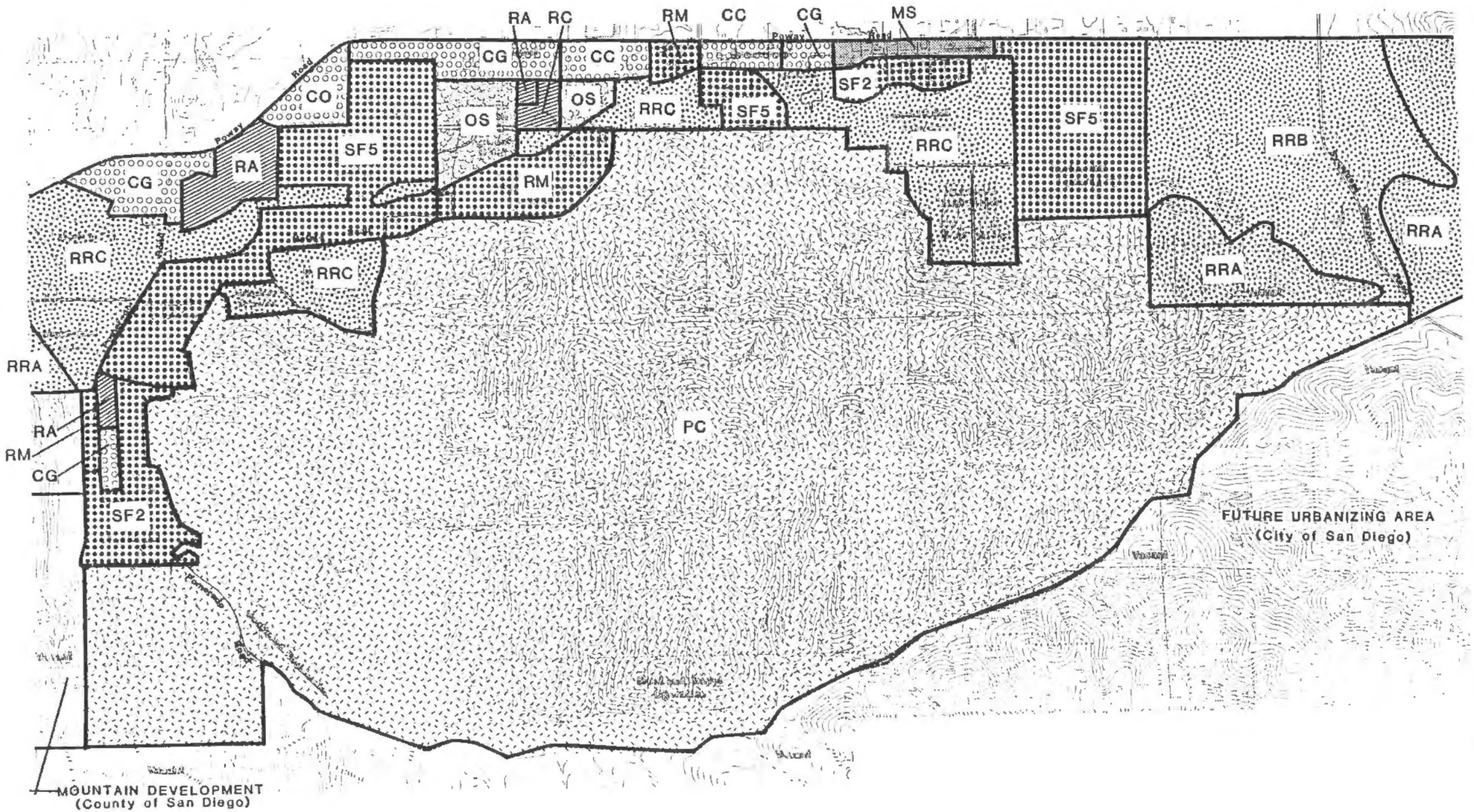
EXHIBIT 6



LEGEND

- PC – Planned Community
- RRA–Residential Rural A
- RRB–Residential Rural B
- RRC–Residential Rural C
- SF2– Residential Single Family 2
- SF5– Residential Single Family 5
- RM– Residential Mobilehome
- RA – Residential Apartment
- RC – Residential Condominium
- CC– Commercial Community
- CG– Commercial General
- CO– Commercial Office
- MS– Manufacturing Service
- OS– Open Space

General Plan Land Use
SOUTH POWAY PLANNED COMMUNITY

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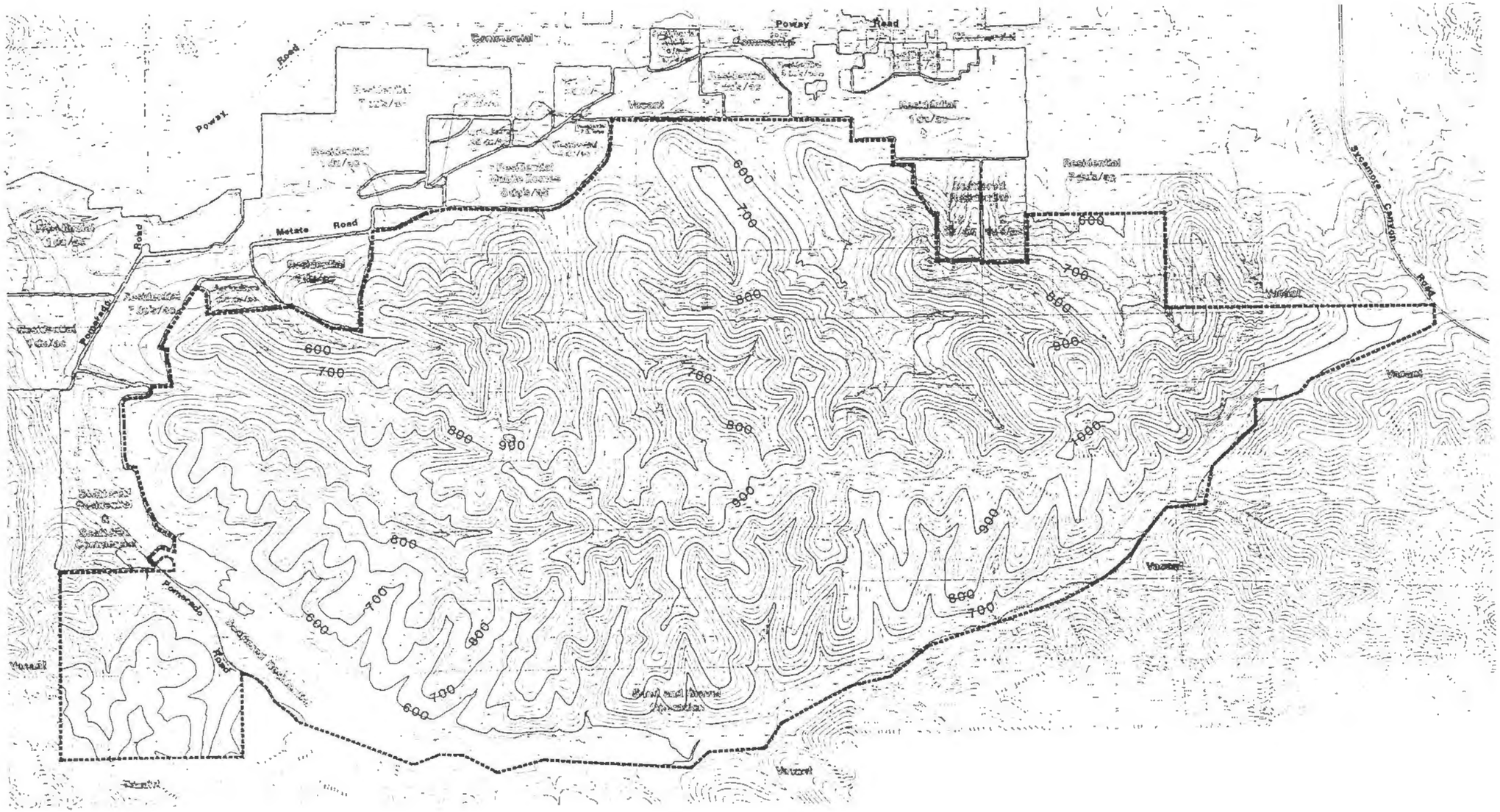
EXHIBIT 7



Topography
SOUTH POWAY PLANNED COMMUNITY

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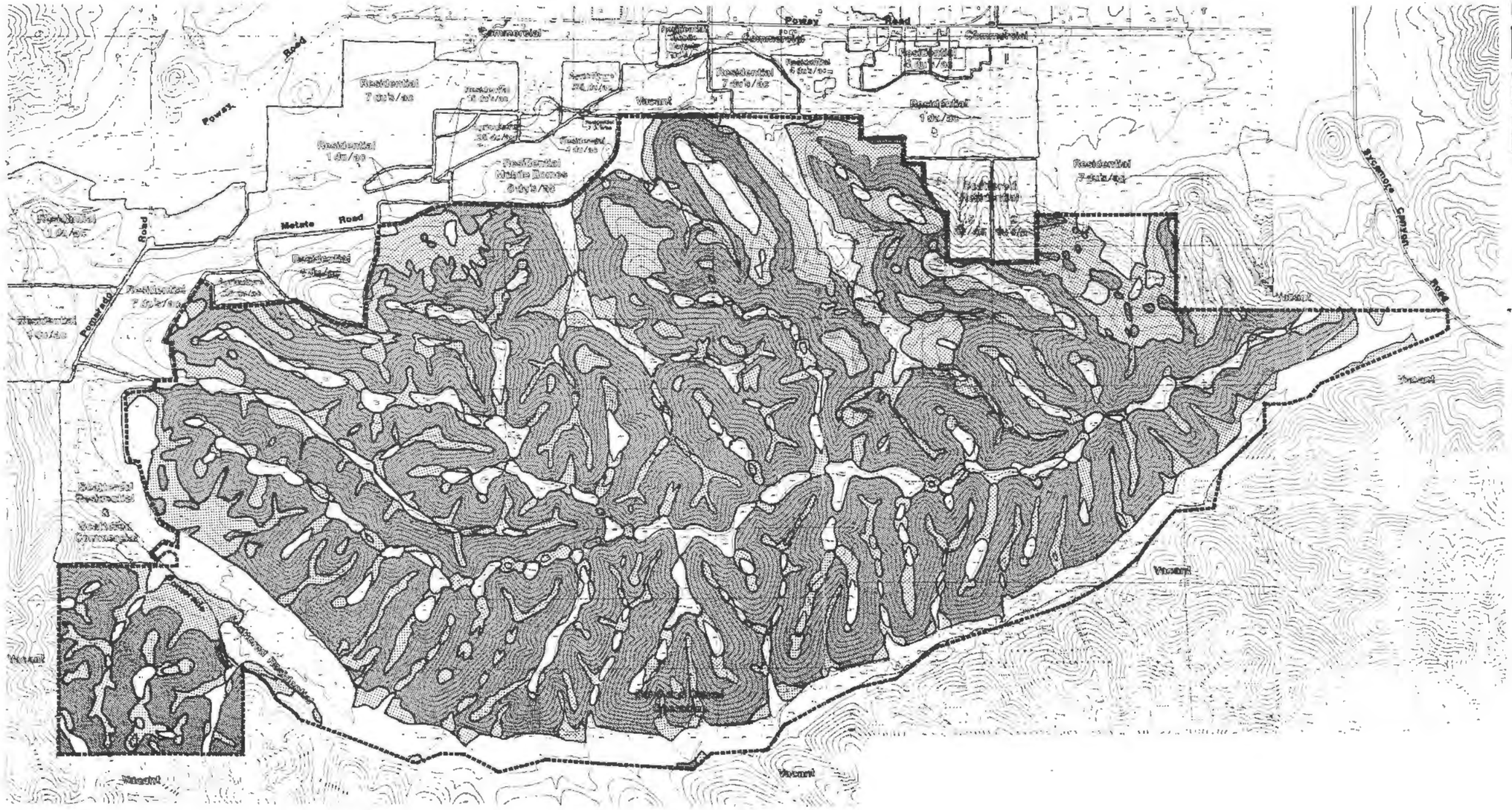
EXHIBIT 8



Slope Analysis
SOUTH POWAY PLANNED COMMUNITY

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EXHIBIT 9

Facilities, Energy Conservation, Trails, Bikeways, Cultural/Historic/ Archaeological Preservation, and Community Design. (The numbers assigned to the plan objectives are for clarity and are not included in Poway's Land Use Plan.)

Land Use Plan Objective 1

Included in Poway's Land Use Plan is the Buehler Planned Community Area (South Poway Planned Community). The objective is to ensure that South Poway is planned to incorporate a variety of uses such as residential, commercial/office, industrial, public and open space with strong emphasis upon employment-generating uses. Compatibility and enhancement of the proposed and existing uses are encouraged. Intensive land uses, such as industrial or manufacturing, should be centrally located in the project area.

Project Response

The proposed project will comply fully with these goals. The proposal incorporates 28 acres of commercial development, 887 acres of residential, and 644 acres of centrally located industrial/business park development. Open space zones and/or rural residential areas buffer the surrounding existing land uses. It should be noted, however, that vacant land adjacent to the project site has potential for development which is not designated at this time. However, the project land uses near these areas are open space and will buffer the surrounding areas.

Land Use Plan Objective 2

In order to maintain the aesthetics of the area, the Land Use Plan specifies that the northernmost and southernmost ridgelines and north slopes should be preserved. Grading should be confined to the interior of the area, to the extent feasible, while still allowing for an efficient circulation system. Topographic modifications should be designed in harmony with the area's general form. The Poway Land Use Plan encourages residential uses in steeper areas with less than 25 percent slope in order to pre-

serve the rural and aesthetic character of the area. The Land Use Plan suggests that intensive uses be located in the interior of the planning area.

Project Response

Visually prominent northern and southern sections of the project site are proposed for open space and rural residential development at a minimum of one unit per acre. Grading for and placement of intensive industrial/business park or commercial land uses will be confined to the interior of the site, although grading for road connections to the surrounding circulation network is required. Homesites should be graded at multilevels to harmonize with hillsides. Roadways will be centrally concentrated. Within the central portion of the site, land uses will not maintain the area's rural character. However, these uses will be screened from adjacent land uses by the intervening topography.

Land Use Plan Objective 3

Three areas which need further investigation and consideration are identified in the city's Land Use Plan. These are preservation of key biologic areas, the value to the city of existing aggregate resources, and the safety and stability of localized areas of Friar's formation. Further project-specific geologic studies will be prepared.

Project Response

An Analysis of Aggregate Resources for the project area has been prepared addressing these resources within the site (Section 4.5), and further biological studies were conducted to identify key biologic areas (Section 4.4). Detailed geologic engineering studies will be performed prior to Tentative Map Site Plan submittal.

Land Use Plan Objective 4

The Poway Land Use Plan specifies that a backbone circulation system which emphasizes an east-west regional arterial and connector to planned region-

al transportation routes should be developed. An aesthetic design should accommodate regional through-traffic, interconnections with the existing local system, and access to uses on property abutting this system in the city of Poway.

Project Response

The proposed circulation system consists of an east-west arterial which traverses the center of the South Poway Planned Community and extends in each direction to provide local transportation service and to provide linkage with regional arterials (eg., Interstate 15 and State Highway 67). Interconnections to the existing circulation system are provided at Pomerado Road, Metate Road, Community Road, Midland Road, and Sycamore Canyon Road. Access to residential uses north of the South Poway Planned Community is enhanced by the proposed circulation system. The road alignments provide proper setbacks from creekside areas. Designs should include trees and vegetation.

Land Use Plan Objective 5

The Land Use Plan states that specific land use studies should establish on- and off-site public facilities and service requirements. Phasing and financial plans shall assure development of these facilities such as streets, schools, fire and police protection, water, sewer, storm drains, and parks. Development of the project area is required by the Poway Land Use Plan to be in accordance with the Planned Community Zone.

Project Response

On- and off-site service requirements are identified and described in the EIR. A phasing and financing plan to assure development of these facilities will be required prior to project approvals. The proposed project will comply fully with the PC Zone regulations (refer to Section 3.7.1, Current Zoning Status and Proposed Designations).

3.9 CURRENT LAND USE

The large majority of the South Poway site is currently undeveloped and vacant. The open space is used primarily for grazing of livestock and for recreational uses, including hiking, riding, off-road vehicle use, and shooting. There are scattered homes located along the southwestern and western borders of the site adjacent to Pomerado Road. Toward the center of the southern project site boundary, a small sand and gravel ready-mix plant is in operation.

Surrounding land uses include residential development to the north and west at 0.25 to 8.0 dwellings per acre, open space to the east and south, and a General Dynamics missile development site to the south of the project site.

3.10 PROPERTY HISTORY

Poway was first settled in the late 1700s by the Spanish missionaries. During this period until the mid 1880s, the area was grazed by mission and rancho cattle. The first white settlers entered the area in 1859 and for the century to follow, farmed the land.

The South Poway project site has remained primarily open space for livestock grazing. When the city of Poway incorporated in 1980, the ensuing Comprehensive Plan (1983) designated the land of the project site for Planned Community development. Prior approvals for the site allowed construction of scattered residential areas and a small aggregate processing plant (Padre Transit) which received a conditional use permit to mine from 1975 to 1990.

There are no additional approved environmental documents pertaining to the project site other than the city of Poway General Plan Environmental Impact Report. The California Division of Mines and Geology has identified a large portion of the site to be a significant source of high-quality construction aggregate.

4.0 EXISTING ENVIRONMENTAL CONDITIONS, IMPACTS, AND MITIGATION MEASURES

4.1 LANDFORM AND TOPOGRAPHY

4.1.1 Existing Conditions

The project site and vicinity are characterized by steep hillsides and canyons. Ridges across the property trend east-west and there are many dry canyons which dissect the site. The property appears as a significant landform forming a southerly backdrop to the Poway community. Elevations range from 1,047 feet mean sea level (MSL) near the eastern property boundary to 453 feet MSL at the western end of the site (Exhibit 8). The majority of the property consists of hillsides in excess of 25 percent slope (Exhibit 9). A continuing aggregate mining operation has significantly modified the topography in the Beeler Creek area by mining sand and gravel.

The city of Poway grading ordinances regulate grading within the city, and provide regulations for grading in hillside areas.

4.1.2. Impacts

Project Impacts. Planned community development would involve substantial landform alteration and grading of the site's central highlands (primarily Master Plan Subareas 1 and 2) to create pads for industrial and commercial uses. This is considered a significant impact of the proposed project. Infilling of canyon heads adjacent to development sites would be necessary to balance cut and fill areas on the site. Exhibit 10 indicates the limits of grading for development areas. Additional grading would also be required for construction of roadways through perimeter open space and proposed rural residential areas. Portions of the South Poway Arterial extension, Community Road and Midland Road extensions will involve cut and fill to canyon sides approaching 25 percent slope. In particular, the proposed South Poway Arterial extension westerly across Beeler Canyon will result in significant grading to hillsides on both sides of the canyon. An additional project entry is also contemplated from Pomerado Road through an unnamed canyon into Subarea 1 south of Metate Lane (see 4.9 TRAFFIC AND

CIRCULATION). If implemented, this link could also require significant grading in planned open space depending upon the alignment selected. Grading for single family dwellings (SF-2, RR-A, RR-C and RM designations) is not considered significant and will afford greater opportunities to retain landform characteristics.

1. Landforms would be substantially altered from grading activities to create usable industrial and commercial/office pads primarily in Master Plan Subareas 1 and 2.

2. Manufactured slopes in excess of thirty feet in height will be required at the development/open space interface. These slopes are not anticipated to be highly visible from offsite areas at lower elevations.

3. Alignment of collector and arterial roadways through surrounding open space in areas of slope exceeding 25 percent will require additional significant grading.

4. From selected vantage points in Poway at higher elevations, project landform alteration will result in potentially significant visual effects. (These effects are addressed in Section 4.13.2.)

Cumulative landform alteration effects of the project in conjunction with existing and planned developments are not considered significant.

Project Alternatives. Impacts to landforms associated with the high intensity Alternative (3) would exceed those of the proposed project with limited extensions of industrial development into open space or rural residential areas in several subareas and increased densities at residential use areas. Conversion of RR-A or RR-C areas to SF-2 and SF-7 designations will necessarily result in increased grading to accommodate smaller lot, production-type housing. The low intensity Alternative (1) substantially reduces landform alteration requirements relative to the proposed project, as it includes only rural residential uses. This alternative may also

require grading necessary for local roads. Grading requirements for a reduced width and standard South Poway Arterial would also be less.

4.1.3 Mitigation Measures

The following mitigation measures are recommened for incorporation in the project in order to minimize or eliminate anticipated impacts:

1. A grading concept plan or detailed grading design criteria shall be included in the Development Plan and tentative map.

2. The Development Plan and text shall include grading design guidelines which address the following:

   a. Contour grading and techniques which leave hillsides rounded and natural rather than cut and fill;
   b. Construction methods which require minimum grading in steep areas such as custom homes and use of multiple foundation levels;
   c. Construction methods that will preserve the natural state of major portions of each lot such as maintaining large lots and open space, particularly on the visually prominent north and south ridges and hillsides;
   d. Building siting and landscaping techniques to conceal or soften exposed man-made slopes;
   e. Preservation of natural drainage courses.

3. Grading activities shall be in accordance with city of Poway Land Resource Conservation Element recommendations, Planned Community guidelines, and geotechnical engineering recommendations.

4. Short-term construction phase erosion should be controlled through use of the best combination of temporary siltation basins, interceptor dikes and sandbags, and by avoiding construction during the rainy months of the fall and winter. Refer to HYDROLOGY, Section 4.3.3.

4.2 GEOLOGY, SOILS AND MINERAL RESOURCES

A preliminary reconnaissance for the proposed project site was performed by Geocon, Inc. in November 1982 in order to identify geologic and soil conditions, and potential geologic hazards. In addition, an analysis of aggregate resources at the site was prepared by PRC Engineering, Inc. in August 1984.

The principal findings of these studies are summarized in the following sections; the original Geocon report is contained in PRC's Appendix to the Opportunities and Constraints Report Buehler Planning Area, and the analysis of aggregate resources by PRC Engineering, Inc. can be found in Appendix C.

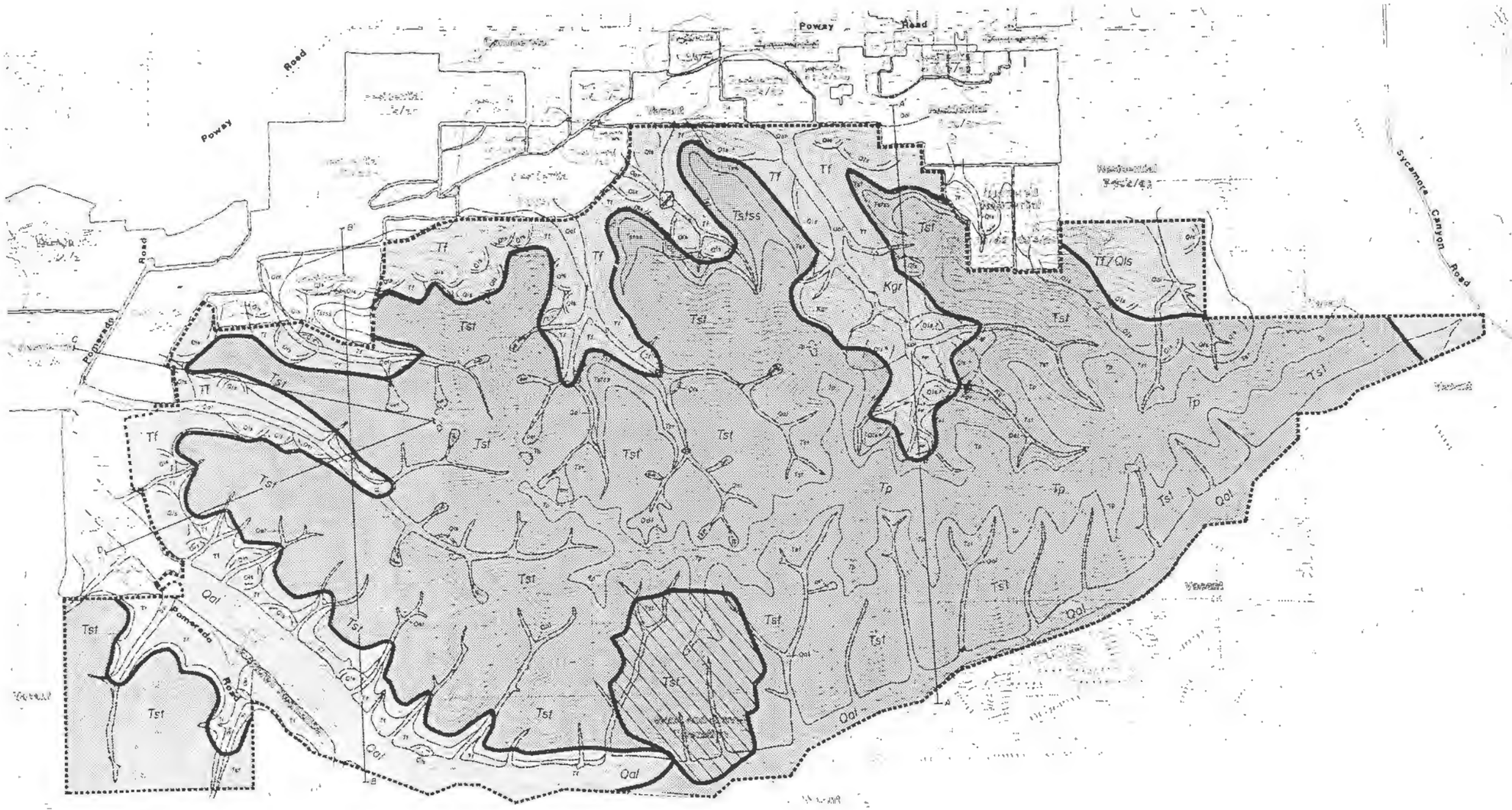
4.2.1 Existing Conditions

Geology

Four geologic formations and five surficial material types were observed at the proposed project site. The geologic formations consist of three eocene sedimentary units: Friar's Formation, Pomerado Conglomerate, and Stadium Conglomerate (composed of sandstone and conglomerate layers). The fourth geologic formation onsite is cretaceous period granitic rocks of the southern California batholith. The surficial materials observed are topsoil and quaternary landslides, which will be addressed separately, and alluvium, slope wash, and debris flows. Exhibit 11 illustrates the occurrence of these materials. The geologic beds are nearly horizontal on the site, dipping only about two to five degrees to the west or southwest.

Friar's Formation generally occurs below an elevation of about 600 to 650 feet Mean Sea Level (MSL) where exposed. Friar's Formation is characteristically subject to various forms of mass wastage such as soil creep and ancient landslides.

Pomerado Conglomerate, a cobbled conglomerate, generally caps the ridgelines at the site. Lithologically or formationally the Pomerado Conglomerate is identical to the underlying Stadium Conglomerate and differs primarily in age.



LEGEND

Qal	Alluvium
Qdf	Debris Flow
Qls	Landslide (Queried Where Existence Uncertain)
Tp	Pomerado Conglomerate
Tstss	Stadium Conglomerate (Sandstone part)
Tst	Stadium Conglomerate
Tf	Frairs Formation
Kgr	Granitic Rock

Geologic Contact

Inferred Geologic Contact

Geologic Cross – Section

Earth Fill Dam

MRZ-2

MRZ-3

Existing Aggregate Lease Area

prc
PRC Engineering, Inc.

0 800 1600
FEET

pbr

Geology
SOUTH POWAY PLANNED COMMUNITY

EXHIBIT 11

Stadium Conglomerate on the site consists of a conglomeratic portion which contains an unusually thick bed of sandstone. The sandstone bed observed is generally at elevations of 650 to 700 feet MSL. The conglomeratic portion is a lightly cemented cobble conglomerate. Minor debris flows are common onsite at the heads of canyons composed of the Stadium Conglomerate. This formation may provide good fill material as both parts of the Stadium Conglomerate possess good slope stability characteristics in both cut and fill and manufactured slopes.

Near the east end of the site, granitic rocks are exposed and geologic trends indicate that granitic rock may also be present at shallow depths below sedimentary units. Deep cuts in areas of granitic rock may require blasting.

Alluvium, which is poorly consolidated soil deposited by water such as a stream, is present in canyon bottoms and tends to vary proportionally with canyon size. Ten to fifteen-foot depths are common in the large canyons in the north-central area of the site. Within the Beeler Creek floodplain, similar depths of alluvium are expected. Smaller canyons have alluvial deposits of about five feet in depth.

Slopewash deposits commonly consist of compressible soils and are composed of clays, sands and gravels. They are frequently observed at the base of canyon flanks and areas adjacent to Friar's Formations. Slopewash must be removed and recompacted in order to provide support of fill or structures.

Debris flows or mudflows occur mainly in association with Stadium Conglomerate and probably occur due to any combination of high-intensity rainfall, loss of vegetative cover, and steep slope.

FAULTS AND SEISMICITY[1]

Poway is remarkably free from faults, though located in southern California region which experiences relatively high earthquake activity. Little

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1 Based on Poway Comprehensive Plan, 1983.

to no damage has occurred from seismic activity, yet potential for some local damage exists in the event of major earthquake along one of the three nearby fault systems.

The three fault systems are the Elsinore, San Jacinto, and Rose Canyon. The active Elsinore fault trends northwest and is about 22 miles northeast of Poway. The San Jacinto fault is also an active northwest-trending fault about 45 miles northeast of Poway. The Rose Canyon fault is located about 16 to 20 miles west of Poway in the Pacific Ocean and is considered potentially active. Ground shaking is the most significant event anticipated in Poway due to local seismic activity.

LIQUEFACTION

Liquefaction, which is the loss of strength in granular, saturated, or unconsolidated sediments, occurs primarily in areas of deep sediments and shallow water tables during ground shaking. Potential for damage from liquefactions occurs when the ground "flows" and buildings tilt or sink. Areas potentially susceptible to liquefaction were not observed on the site, however, it should be considered in a more detailed geologic engineering investigation.

LANDSLIDES

Landslides are common in the Poway area and generally occur as a result of ground shaking in areas of unstable geologic conditions, such as the Friar's Formation. On the proposed project site, areas of slide-prone Friar's Formation are generally at lower elevations, particularly along the northern and western property boundary (Exhibit 11).

Soils[1]

The majority of the site is overlain by clayey and cobbly topsoils with thicknesses estimated at one to five feet. The most common soil types within the site boundaries are Redding cobbly loam with 15-50 percent slopes and Diablo-Olivenhain complex with 9-30 percent slopes.

1 USDA Soil Conservation Service, Soil Survey of San Diego Area, California, December 1973.

Table 3 lists the soils found on site in order of decreasing abundance and describes soil characteristics. Roughly 90 percent or more of the area is covered by either Redding cobbly loam (RfF) or Diablo-Olivenhain complex (DoE). These soils are found primarily on steep slopes.

The majority of the soils exhibit a high shrink-swell or expansive potential which tends to crack structures unless compensated for this characteristic. Most soils also have a high erosive potential due to rocky textures, steep slopes or both.

Agricultural capability classifications range from Class II (moderate limitations restricting some agricultural uses) to Class VIII (soils and landforms preclude use for production of commercial crops but allow use for recreational, wildlife, and aesthetic purposes). Most soil areas are designated Class VII (generally unsuited for cultivation). Another agricultural use indicator is the Storie Index which ranges from grades 1 to 100, where less than 10 is unsuited to farming purposes and 80 to 100 is suitable for most crops. Soils on the site predominantly earn a Storie Index of 10 with some areas ranging in the 20s and 40s indicating severe to moderate limitations for crop production but suitability for pasture or range.

Due to the high demand for construction grade materials in the San Diego area and due also to the requirement to balance cut and fill areas onsite, soils considered suitable sources of gravel, sand or decomposed granite are listed in Table 3. Soils are also rated by the Soil Conservation Service Soil Survey for use as topsoils or roadfill. Redding and Visalia soils are considered fair to poor roadfill and Diablo-Olivenhain complex soils are determined to be poor sources of both roadfill and topsoil.

Mineral Resources[1]

The California Department of Conservation and State Mining and Geology Board has designated Regionally Significant Construction Aggregate

1 Analysis of Aggregate Resources Buehler Planning Area, Poway, California, PRC Engineering, Inc.

Table 3

SOIL CHARACTERISTICS[1]

Soil Type	Slopes	Shrink-Swell Potential	Capability Classification/ Storie Index	Suitability as Construction Material Source
RfF-Redding Cobbly Loam	15-50%	High	VIIe-7/10	Gravel
DoE-Diablo Olivenhain Complex	9-30%	High		
Diablo			IVe-5/23	
Olivenhain			VIe-7/23	
VbB-Visalia Gravelly Sandy Loam	2-5%	Low	IIe-1/49	
VbC-Visalia Gravelly Sandy Loam	5-9%	Low	IIe-1/44	
Rm-Riverwash		Low	VIIIw-4/40	
DaF-Diablo Clay	30-50%	High	VIe-5/13	
DaE-Diablo Clay	15-30%	High	IVe-5/30	
DaC-Diablo Clay	2-9%	High	IIe-5/42	
SbC-Salinas Clay Loam	2-9%	Moderate	IIe-1/73	
RdC- Redding Gravelly Loam	2-9%	High	VIe-3/19	Gravel
CnE_2-Cieneba-Fallbrook Rocky Sandy Loams (Eroded)	9-30%	Low		Decomposed Granite
Cieneba			VIe-7/18	
Fallbrook			VIe-7/18	
Rock Outcrop			VIIIs-1/na	

1 USDA Soil Conservation Service, Soil Survey, December 1973.

Resource Areas in the Western San Diego County Production-Consumption Region (March 1984). Currently, a deficit is projected for aggregate resources; however, a substantial amount of this resource remains available for mining to meet the regionwide projected demand. The Western San Diego Production-Consumption Region is reported to contain approximately 430 million tons of aggregate reserves which have use permits allowing mining operations. In the next 50 years, 760 million tons of aggregate is projected to be needed by the construction industry, which leaves a 330 million ton deficit. Higher quality aggregate comprises nearly half of the entire aggregate demand.

The great majority of the proposed project site is designated Mineral Resource Zone-2 (MRZ-2) by the state (Exhibit 11). An MRZ-2 is defined as "an area where adequate information indicates that significant mineral deposits are present or where it is judged that there is high likelihood for their presence. This zone (MRZ-2) shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic geologic principals and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high." The remainder of the site is designated MRZ-3 which indicates "areas containing mineral deposits, the significance of which cannot be evaluated from available data." The South Poway planning area is underlain by large amounts of conglomerate composed of aggregate materials. Total aggregate resources, both permitted for extraction and unpermitted, are estimated at 317 million tons within the site.

Padre Transit is a small permitted aggregate mining and processing operation located adjacent to Beeler Creek in the south-central portion of the property. The permitted area of 82 acres is estimated to contain 21-35 million tons of high quality aggregate within about a one-mile radius of the plant.

4.2.2 Impacts

Project Impacts. The proposed project is not found to have any unmanageable geologic or soils constraints. Construction and development is considered geotechnically feasible, however, further site specific geological

engineering studies are required by the city of Poway. Future design level investigations should address potential site-specific geologic constraints and their implications.

Geology

Grading for the proposed project is concentrated within the central portion of the site where the most intense use of the land will be made. Exhibit 11 illustrates that the area proposed for industrial and commercial uses is generally underlain by the stable Stadium Conglomerate or Pomerado Conglomerate. However, some industrial and especially some residential uses and roadways are proposed in areas of Friar's Formation. Alluvial deposits project into almost all areas of the site and frequently underly proposed roadways. Less significant grading for rural residential homesites is proposed in areas supported mainly by the two conglomerate formations and the granitic unit.

Areas subject to adverse geologic conditions potentially requiring corrective measures are discussed below.

1. Compressible alluvium and slopewash depths are anticipated to be five to ten feet deep. These are found primarily along canyon alignments and will require at least partial removal and recompaction prior to placement of fill in canyons.

2. Cut and fill slopes constructed of Friar's Formation materials may not possess a high safety factor against sliding. Buttresses may be required for cut slopes and stability fills may be required for fill slopes composed of Friar's Formation materials. Materials obtained from the overlying conglomerates may provide these strong buttresses and stability fills. Slide debris often contains zones of compressible materials which require recompaction to reduce the chance of differential settlement.

3. Groundwater seeps are commonly encountered in cut slopes during grading operations. If such seeps are encountered, mitigative measures

such as intercept drainage systems may be required at that time. Seeps are anticipated at the contact of the Stadium Conglomerate and Friar's Formation.

4. Groundwater is also anticipated at shallow depths within alluvial deposits in larger canyons. When this condition exists in areas receiving fill, canyon subdrains will be required.

5. Granitic rock may require heavy ripping or blasting in deep cut areas. (Rippability characteristics may be determined by seismic refraction surveys.)

FAULTS AND SEISMICITY

Because there are no known faults in the area, the site is not expected to be subject to direct surface rupture or faulting. Development will, however, be subject to hazards due to ground shaking from earthquake activity. One area identified for further study is the stability of several existing small earth-filled dams onsite. They should be evaluated as their condition is currently unknown. Dam failure due to ground shaking could result in damage to downstream property or endanger persons in areas subject to inundation.

LIQUEFACTION

Investigation of soil, groundwater and seismic conditions onsite indicates that liquefaction will not significantly impact proposed development. Small, deep pockets of unconsolidated alluvium with shallow groundwater may be encountered. However, these areas are expected to be amenable to compaction and will not pose a constraint to development.

LANDSLIDES

Landslides are found to be prevalent in portions of the site, particularly those areas of Friar's Formation. Some factors which contribute to ground movement on unstable slopes are the following:

- slopes greater than 30 percent on landslide prone areas;
- undercut slope bases due to erosion or grading;
- slopes overloaded with weight;
- saturated unstable slopes due to prolonged rainfall, over-irrigation, leaky swimming pools or pipes, leach line discharge.

Where development is planned in landslide-prone areas, remedial grading measures will be necessary. Typically, the measures include construction of earthfill buttresses with associated subsurface drainage systems.

Other techniques which may reduce slide hazard include removing, redistributing, compacting, or otherwise stabilizing earth masses prone to movement, and practicing careful landscaping and irrigation techniques.

Soils

Removal of vegetative cover from highly erosive soils will subject them to surface erosion from wind and water. These impacts will be associated with the short-term construction phase as revegetation will be accomplished following grading and construction. Large areas of rural residential and open space uses will retain the natural cover of vegetation.

Moderately to highly expansive topsoils will be encountered over much of the site's ground surface. The presence of the soils may necessitate undercutting of daylight lines in cut/fill transition lots, possible undercutting of cut lots where topsoils are exposed over a larger portion of the finished lot surface, excavation of relatively deep keys in areas where fill is to be placed, and placement of topsoils in deeper fills where possible.

Expansive soils may also be encountered within the Friar's Formation and landslide materials. Handling of these materials is similar to that of topsoils, discussed above. Since Friar's Formation and landslide materials are generally located at lower elevations, site grading should be planned such that the less expansive conglomerates are placed over these expansive materials when feasible. This would eliminate the need for specially designed foundations.

Due to the extremely limited extent of prime agricultural soil onsite, impacts to agricultural soils are not considered significant. Use of proposed development areas for grazing is limited to some extent by steep slopes, narrow ridgelines and coastal sage scrub vegetation. Potential usable rangeland for grazing of livestock will be retained in open space and rural residential areas.

Mineral Resources

The PRC Engineering investigations of aggregate recovery addressed four alternatives.[1] The first alternative was a no-project situation where all existing site conditions would remain unchanged. The existing mining operation would continue until its permitted aggregate reserves were exhausted or the permit expired. Impacts associated with larger scale mining activities would be avoided. However, the present aggregate supply deficit in the San Diego production consumption region would not be reduced. The second alternative proposed that the 2,500-acre site be used exclusively for mining operations. This alternative is considered a basic alternative to the proposed South Poway Planned Community which would result in the significant reduction of the regionwide 50-year supply deficit; however, environmental impacts associated with this major resource extraction alternative would be significant. The third and fourth alternatives, which proposed the expansion of existing mining operations and onsite use of aggregate obtained during grading, would result in the reduction of the 50-year aggregate deficit. A combination of these last two alternatives would provide a reduction of the regionwide supply deficit with minimal significant adverse effects resulting from the mining operation. The economic feasibility of mining and processing during grading would have to be determined after South Poway Planned Community grading plans were developed when a total amount of recoverable material was estimated. An evaluation of impacts associated with these latter alternatives is provided below.

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1 PRC Engineering, Inc., Analysis of Aggregate Resources, Buehler Planning Area, August 1984.

Expansion of the Existing Mining Operation

This alternative would allow the limited expansion of the Padre Transit aggregate production plant located in the south central portion of the South Poway area. The undeveloped area east of the existing Padre Transit property boundaries could be incorporated into the mining plan. A total of approximately 13.5 acres could be opened to mining activities with a potential yield of approximately 1.2 million tons of aggregate material. The 13.5-acre extension would allow an expansion in mining activities with minor visual impacts. Further extensions, which are feasible, would result in the loss of buffering ridgelines and more significant visual impacts. Although the mining area would expand, the size of the processing plant would remain the same unless the aggregate demand increased. Production rates would remain consistent with market demand and therefore, the intensity of existing noise, air and dust pollution and truck traffic would also fluctuate with market demand. The increase in minable land would mean a larger visually altered area.

Impacts on the future plan area development associated with the mining activities would vary depending upon the type and location of land uses permitted in the South Poway Planned Community. Careful planning would be needed to assure that impacts from the existing and expanded operations on future development would be avoided. The mining operations could have visual, noise and truck traffic effects on proposed development if buffer zones and appropriate truck routes were not established. Fugitive air and dust emissions would be regulated pursuant to national ambient air quality standards and should not have an effect on surrounding development. Existing truck traffic impacts on surrounding residents could be mitigated if a new north-south access route was developed that eliminated the use of existing Beeler Canyon Road and routed trucks directly onto more major roads such as the South Poway Arterial. Such a road is proposed as part of the South Poway Community Plan (Exhibit 6).

Onsite Use of Aggregate Obtained During Development

A plan for the onsite use of aggregate obtained during the development of the South Poway Planned Community would be implemented under this alternative. The following is an outline of the proposed plan:

- During grading activities, conglomerate would be recovered and processed for use in concrete, base materials for foundations and other materials needed for the development of the area.

- The unusable material obtained during processing would be used for fill material.

- Grading plans would be designed to avoid the need to import or export materials.

The economic feasibility of the outlined plan has not been evaluated and would depend on individual project plans and the need for and cost of aggregate processing facilities in addition to Padre Transit. Padre Transit currently mines within a one-mile radius of the plant, not only because the supply of resources is abundant within the one-mile area but also because it is currently not economically feasible to haul unprocessed material further than one mile. For this reason, a portable processing plant may need to be utilized near site grading and development activities and relocated during the different development and grading phases. However, if future studies reveal that a portable processing plant is not economically feasible or desirable, export material from grading activities could be transported to Padre Transit and either stockpiled or immediately processed for future onsite use or sale. Truck traffic outside of the development would decrease due to the reduced need to import or export materials.

Combination Aggregate Mining Plan

The alternatives discussed above could be combined into a viable development program which incorporated plans for expansion of the existing mining operation and onsite use of aggregate obtained during grading. With this approach, the aggregate regionwide supply deficit would be decreased, and at the same time a demand for aggregate would be filled. Impacts associated with the exportation and importation of materials would be reduced due to the decrease in the need to haul unusable materials away from the site or aggregate to the site. If the onsite use of aggregate materials was found to be economically feasible, these two alternatives could be coordinated with onsite development activities.

Implementation of a plan for onsite use of aggregate during South Poway Planned Community development would address the state's concerns about dwindling aggregate resources by providing for the mining of existing onsite resources and would reduce impacts of any potential loss of aggregate resources through development.

Cumulative Impacts. Project development without beneficial use of the underlying MRZ-2 aggregate resource represents a potentially significant direct and cumulative loss of a regional resource.

Project Alternatives. Geologic, soils, and mineral resources impacts associated with the high intensity development Alternative (3) would be similar in type to, but somewhat greater in magnitude than, those of the proposed project. The increased residential development area could be exposed to potential geotechnical hazards. However, as with the proposed project, it is anticipated that proper engineering techniques will alleviate these conditions. Under low intensity Alternative (1), total development area exposed to potential hazards would be significantly reduced relative to the proposed project. As development would only require construction of homesites and a limited number of local roads, opportunities to avoid geological and soil conditions requring corrective measures would be reduced.

4.2.3 Mitigation Measures

1. The Development Plan shall include detailed standards or guidelines for grading design and identify the need for detailed engineering geologic and soils investigations for certain areas.

2. Detailed engineering, geologic and soils investigations should be submitted with subsequent subarea plans or tentative maps for review and approval by the city of Poway.

3. Subsequent engineering, geologic and soils reports shall address, as needed, potential corrective measures for expansive/compressible soils, natural slope instability, rippability, and liquefaction potential.

4. Structures should be designed in accordance with the city of Poway building code to ensure that earthquake standards are met.

5. If existing earthen dams are retained onsite, hazards should be avoided by thoroughly investigating the structural integrity of existing dams with respect to anticipated seismic activity.

6. Within residential areas, over-irrigation, leaky swimming pools or utility pipes, and septic system/leach line discharge which can contribute to landslides should be avoided by careful planning and design at the tentative map stage.

7. Erosion potential during grading and construction periods should be controlled with rapid developing planting techniques, such as hydroseeding. To the extent feasible, grading should be scheduled to avoid the rainy months of late fall through early spring. Temporary erosion control measures such as perimeter sandbagging and desilting basins shall be incorporated into final grading plans.

8. Long-term soil erosion should be avoided using revegetation and proper drainage control devices such as siltation basins, terrace drains and downdrains, and brow ditches.

9. A reclamation plan for the existing Padre Transit operation and any future expansion should be prepared in accordance with the city of Poway surface mining ordinance.

4.3 HYDROLOGY AND WATER QUALITY

4.3.1 Existing Conditions

Watershed

The proposed South Poway Planned Community site is located within the Poway subunit of the Penasquitos Hydrographic Unit. This hydrologic unit extends in a triangle about 170 square miles (108,800 acres); it begins at Poway and broadens as it trends westerly toward LaJolla, Penasquitos Lagoon and the Pacific Ocean. There are no major streams within this unit although it is drained by numerous creeks. Excluding the area occupied by military use, the unit primarily encompasses urban land uses with prevailing natural vegetation but with several dense residential areas and the Sorrento Valley Industrial Park. The project site comprises about 2 percent of the total area within the Penasquitos Hydrologic Unit.

Within the boundaries of the proposed project, the highest ridgeline trends east-westerly and serves to bisect the site into two drainage areas. The northern portion of the site drains into Poway Creek while the southern portion drains into Beeler Creek. Riparian vegetation grows along the tributary canyons and creeks which merge with Poway and Beeler Creeks.

Drainage/Flooding

Drainage patterns onsite are characterized by intermittent surface flows in drainage courses and are primarily the results of stormwaters. Some springs flow year-round, however. The principal onsite drainage feature is Beeler Creek, which defines the southern perimeter of the property. The creek is a narrow, shallow drainage channel composed primarily of aggregate and cobbles; these conditions help to mitigate erosion and sedimentation potential. The channel is significantly modified at the Padre Transit mining operation and where riprap spills into the channel. There are several existing residences located along the channel at the southwest property boundary. Beeler Creek receives secondary drainages from the southern portion of the site and continues in a westerly then

northerly direction. Poway Creek is located offsite but receives runoff from the northern portion of the site and also flows westerly. These major channels then merge with Pomerado Creek and become Penasquitos Creek. Exhibit 12 illustrates surrounding drainage features.

Rainfall in Poway occurs almost exclusively during the fall and winter months between October and April; annual rainfall averages nine inches. Beeler Creek floodplain extends the length of the southern property boundary and the flow level from the 100-year storm (Q_{100}) is estimated at about 3,700 cubic feet per second (cfs) at existing conditons where the creek passes under Pomerado Road. The Poway Creek floodplain extends the length of the property (offsite) and the Q_{100} for Poway Creek at Standish Drive is about 5,600 cfs. These channels are subject to change in configuration due to flooding.

Drainage improvements affected by runoff at the project site were analyzed by PRC Engineering, Inc. in 1984. This Hydrological Analyses is contained in Appendix D and describes the drainage basins and existing facilities and potential impacts to these by development. Drainage improvements currently exist along the northern and western site boundaries in conjunction with developed areas. Refer to Exhibit 12 for the locations and types of these improvements. They are evaluated below as either adequate or inadequate for future development. There are no important facilities along the eastern and southern property boundaries.

To the west are two culverts under Pomerado Road and a small bridge on Pomerado Road which crosses Beeler Creek. These are considered adequate for Beeler Creek's usual intermittent flow but inadequate for the 100-year storm. To the north is a reinforced concrete pipe (RCP) at Montauk Lane, a dip in Metate Lane for overland runoff, a corrugated metal pipe (CMP) and arch, a reinforced concrete box (RCB), and another CMP leading to a CMP arch. Most of these facilities are old and appear to have been designed for the existing developments only and for a storm of lesser magnitude than the 100-year storm. In addition, the streambed along Montauk Lane has deteriorated considerably under natural conditions. Newer residential development east of Community Road installed an RCP at Woodgate Place and an RCP at Grimsley Street which appear to be currently inadequate and adequate, respectively.

Increases in downstream drainage flows are regulated by the National Flood Insurance Act of 1968. This act limits direction and volume of flow changes and requires notification of changes to downstream owners.

Groundwater

Groundwater is of importance as an inducement to vegetation and as a natural storage facility. It has been determined in recent years that San Diego's groundwater resources are diminishing due to overdraft. Geologic and soil conditions in Poway are not conducive to groundwater recharge, therefore the city imports water for domestic and other uses. A few areas, however, in the eastern section of the city rely on wells for potable and irrigation water.

Onsite groundwater appears to be encountered only in alluvial deposits along drainage channels. It is likely that groundwater will be encountered between the relatively permeable Stadium Conglomerate formation and the less permeable Friar's Formation during grading activities onsite.[1] Groundwater recharge with the property boundaries occurs in drainage channels, particularly Beeler Creek, and occasional swales where water ponds.

Water Quality

Primary responsibility for all water quality rests with the State Water Resources Control Board. It is supported in Poway by the San Diego area division, tne San Diego Regional Water Quality Control Board (RWQCB).

SURFACE DRAINAGE

Surface water on the site is mapped by the U.S. Geological Survey as intermittent, nowever, most of the time, the drainage channels are dry. Stormwaters which collect on the site may gather plant nutrients, sediments, and debris associated with grazing of livestock. Surface water in the Beeler Creek drainage channel south of the Padre Transit mining operation in particular, contains a relatively nigh load of sediments due to the crushed aggregate which currently spills into the channel.

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1 Geocon, Inc., Geologic Reconnaissance for Buehler Planning Area, November 1982.

Regionally, water quality in surficial waters is good. Poway Creek, which drains a portion of the City of Poway and the northern portion of the site, is the only creek in the site vicinity which has been monitored for water quality by the RWQCB.[1] Water quality in Poway Creek is representative of regional surface waters. The quality is relatively good although somewhat high in total dissolved solids (TDS). Surface waters tend to decline in quality as they progress downstream and assume contributions of water pollutants from agricultural and urban land uses such as plant nutrients, heavy metals, and sediments.

Of particular concern in the Penasquitos Hydrologic Unit is the water quality of the Penasquitos Lagoon. The lagoon is located approximately ten miles west of Interstate 15 and is a major coastal wetland encompassing about 385 acres. About 70 percent of these acres are comprised of salt marsh vegetation and tidal channels. During most of the year, the lagoon is closed from the ocean while water pollutants influx continually, causing marked water quality degradation. The biological value of the Penasquitos Lagoon is high because of the scarcity of saltwater marshlands in southern California. Water quality in the lagoon directly affects the biological quality.

GROUNDWATER

Groundwater within the Penasquitos Hydrographic Unit is considered to be of marginal quality for domestic purposes and of suitable to inferior quality for irrigation purposes. The reason for these inferior ratings is due primarily to the high concentrations of TDS. Coastal area groundwater is naturally high in salts due to its marine origin. Regional groundwater quality tends to be less than good due to limited rainfall and irrigation with Colorado River water.

4.3.2 Impacts

Drainage/Flooding

Impacts to drainage and flooding near the project site are anticipated to include significantly increased runoff volumes (this will continue

1 Telephone conversation with Greg Peters, SDRWQCB, November 1984.

downstream of the site), significant modification of existing flow patterns and channel locations and features, and exposure/protection of development to flood hazards.

Stormwater runoff will increase in volume and peak flows will change in time and intensity as development covers soils with impervious surfaces such as construction pads, buildings, and roads. Runoff direction will change as stormwater tends to follow roadways and other man-made slopes until it is collected and redirected by storm drains. Runoff from irrigation of landscaping may contribute flows to new drainages which are currently dry or seasonally dry.

For purposes of this analysis, construction pad and street flow directions were roughly determined using a hypothetical grading scheme. The impacts of the proposed development appear to be significant drainage diversion and increased runoff.

Impacts from the proposed project to existing drainage facilities at the property perimeter include:

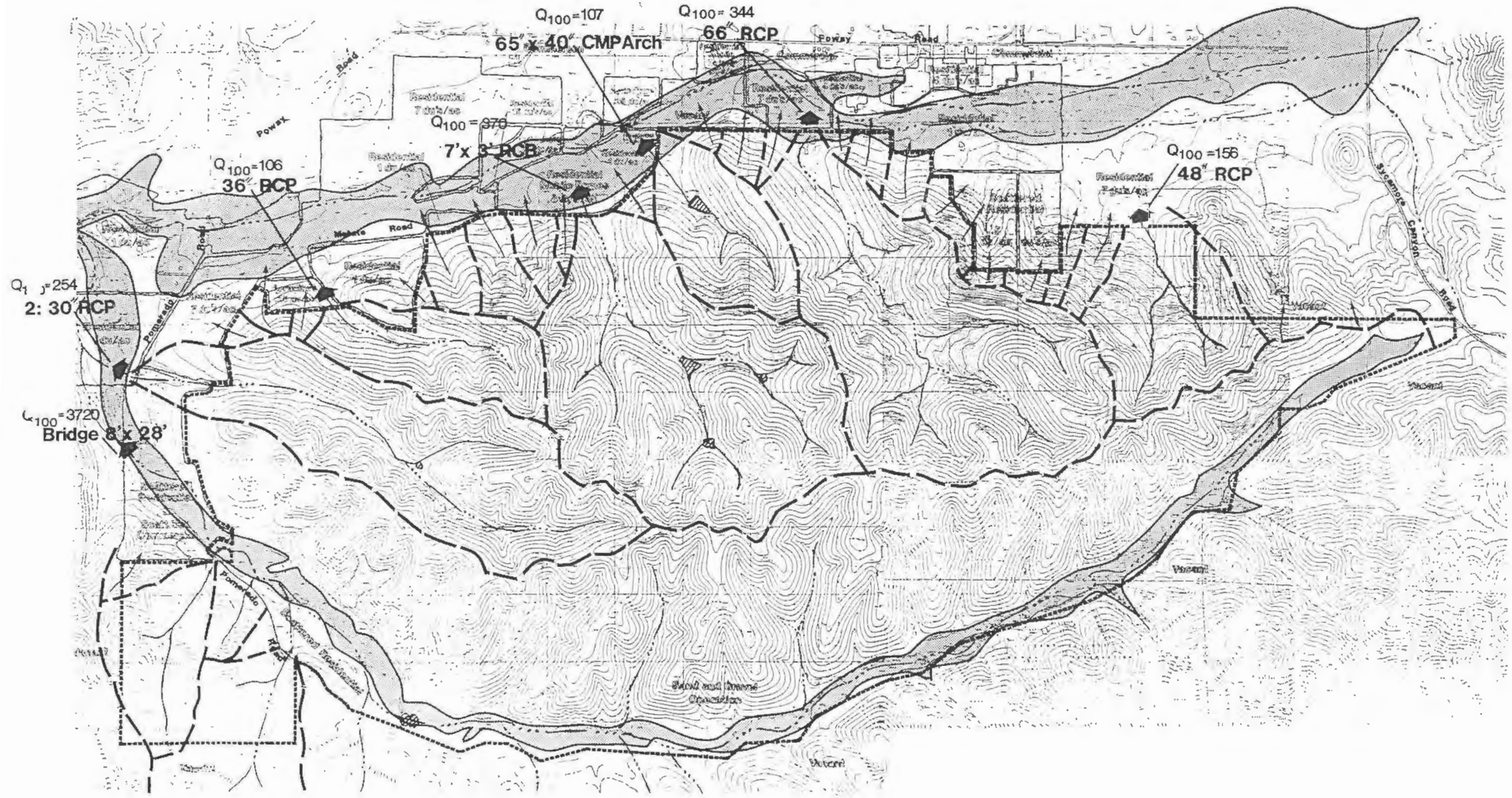
a. runoff draining into the RCP under Metate Lane would increase about 60 percent to 185 cfs and the very small detention basin upstream from the pipe will continue to inadequately retard stream velocities; the streambed adjacent to Montauk Lane would continue to deteriorate;

b. flows at Metate Lane and Community Road RCP would almost double to about 595 cfs;

c. flows at the CMP and joining arch which drain into Poway Creek from Community Road would increase about 20 percent to 128 cfs;

d. the runoff to the RCP at Woodgate Place would increase by about 15 percent to 423 cfs;

e. the bridge at Pomerado Road which crosses Beeler Creek would remain undersized;



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f. runoff to the two culverts located under Pomerado Road would decrease due to diversion of runoff to other areas; the facilities would remain inadequate;

g. erosion impacts to the Beeler Creekbed area and tributaries are unknown without further site specific studies;

h. the Grimsley Avenue RCP would not be impacted because proposed development is minimal at the subbasin which drains to it.

Groundwater

Impacts to groundwater include a decrease in aquifer recharge due to the large area which will be developed with impervious surfaces such as pads, buildings, and roads. The most significant recharge area onsite is the Beeler Creek drainage channel. This channel will primarily remain in its existing natural state except for the continuing adjacent aggregate mining operation and the small residential development proposed along the channel in Master Plan Subarea 5.

Water Quality

Both short-term and long-term impacts as well as direct and indirect impacts could be associated with implementation of the proposed project. Short-term impacts are related to construction and grading while long-term impacts are associated with the change in landforms and urban runoff.

SURFACE DRAINAGE

Without any mitigation measures, except the natural riparian vegetation which filters out sediments and urban pollutants somewhat, erosional processes during grading and construction of the project would increase significantly. The sediment load of surface flows would increase markedly and the heavier particles would incrementally fall out in areas of ponding or slow flow rates enroute to the Pacific Ocean. Silt and sediments would be deposited in the sensitive Penasquitos Lagoon. These impacts can be mitigated with proper management practices such that sediment contributions to water flows are reduced below pre-development levels.

Most polluted surface waters come from industrial operations and water quality would be impacted by urban runoff from streets and industrial/commercial areas. Assuming that hazardous industrial wastes are properly disposed, urban runoff would generally contain heavy metals, oil and grease, debris, and some plant nutrients and herbicides from landscaped areas as well as solvents, lubricants, and detergents disposed of in storm drains by individual residences. Salts may also be added to drainage waters downstream if water softening agents are utilized in potable water because water treatment plants dispose of treated water in the Penasquitos Hydrographic Unit. The project-generated pollutants will incrementally add to the degradation of Penasquitos Lagoon although as an individual development, the proposed project would not significantly impact water quality in the Penasquitos Hydrographic Unit.

GROUNDWATER

Groundwater quality impacts are determined by the pollutants contained in the waters and the characteristics of the soils through which the water percolates. Groundwater is not anticipated to be significantly impacted by the proposed project. Salts will probably increase insignificantly due to irrigation with Colorado River water. As previously mentioned, riparian vegetation within the Beeler Creek area would filter some of the urban runoff pollutants prior to percolation.

Cumulative Impacts. Cumulative impacts to the Penasquitos Hydrographic unit are primarily the combined water quality impacts of agricultural land use, construction, and urban development. Development of the proposed project would add incremental amounts of sediments, urban runoff pollutants, and plant nutrients and salt from landscape runoff. Downstream, these pollutants from the entire hydrographic unit accumulate in the Penasquitos Lagoon and cause algal blooms, sedimentation, and subsequent biological degradation. These pollutants (with the exception of sediments) also combine to degrade groundwater basin quality. The project would add to these impacts incrementally as well as incrementally diminishing groundwater recharge due to urban development. The project will not diminish groundwater supplies through pumping, however.

Project Alternatives. Impacts of Alternative (3) to drainage/flooding, groundwater and water quality would be very similar to those of the proposed project. Impacts of low intensity Alternative (1) would be minimal. Minor diversion of drainage channels would be required due to roadway alignments. Runoff volumes would increase somewhat at existing facilities except the culverts under Pomerado Road which would receive reduced flows. Replacement, expansion, or addition of facilities would be required in all alternatives including "no project" in order to bring existing facilities up to 100-year storm standards.

4.3.3 Mitigation Measures

1. Impacts to existing drainage facilities could be mitigated with expanded or additional facilities. Specifically, these are the following:

   a. Construction of a larger detention basin upstream of Metate Lane;

   b. Improvement or replacement of the RCP at Metate/Community Roads, a detention basin upstream of the RCB;

   c. Addition of a new system of capacity equivalent to the existing CMP and arch at Community Road;

   d. Addition of detention ponds above the RCP at Woodgate Place;

   e. Replacement of the existing bridge during the proposed realignment of Pomerado Road;

   f. Replacement or enlargement of the two RCP's under Pomerado Road;

   g. Further site specific studies of the Beeler Creek area to determine impacts and mitigation measures.

2. Specific drainage and flood control designs shall be submitted in conjunction with tentative map/development review applications and approvals. These designs shall be in conformance with city of Poway water resource conservation policies and flood hazard management policies:

a. all structures must be raised one foot above flood level;
b. a hydrologic or civil engineering report must certify the 100-year flood level, and no change in upstream or downstream floodplain;
c. all-weather access to development must be provided;
d. drainage mitigations shall be utilized to maintain natural drainage channel states.

3. Grading near the floodplain may require channel bank and slope stabilization measures such as vegetation, drop structures, and rock riprap slope protection. To protect from erosion or hydraulic impacts, grading and development in the Beeler Creek floodplain area will be identified in subsequent tentative map plans.

4. The project will comply with provisions of the National Flood Insurance Act of 1968 which reduce potential flooding and drainage impacts downstream.

5. To minimize siltation and sedimentation impacts from grading and construction, the following measures shall be implemented:

   a. location of temporary siltation basins at strategic drainage points;
   b. paving or rapid seeding of graded slopes utilizing methods such as hydroseeding;
   c. scheduling of major grading and construction activities during the non-rainy season months of April through October;
   d. perimeter sandbagging revetments or plastic membrane material to stabilize slopes and reduce erosion and sedimentation impacts;
   e. diversions of flow from steep slopes during grading.

6. Long-term erosion and sediment control shall be provided by proper placement of siltation basins, downdrains, terrace drains, vegetation of slopes, and maintenance of riparian areas.

7. Stormwater management plans shall be developed to reduce water quality degradation such as a street cleaning program, periodic storm drain cleaning, and landscape plans which reduce plant nutrient and herbi-

cide impacts to water quality. Urban water pollutants from solvents and detergents used to wash auto and truck motors and the oils and greases that are dissolved must be collected for treatment and not allowed to enter the storm drain systems. Residential disposal of such materials into storm drains should be discouraged.

8. The project shall comply with the California Department of Water Resources recommendations and regulations relating to water conservation and flood damage prevention. Included are the following recommendations:

   a. use of reclaimed water for irrigation purposes,
   b. installation of low-flow showers, faucets, toilets and water conserving appliances,
   c. drought-tolerant landscaping,
   d. use of pervious paving materials.

4.4 BIOLOGICAL RESOURCES

4.4.1 Existing Conditions

Biological resources on the 2,500-acre South Poway site were initially assessed by Harold A. Wier Associates, Biological Consultants in November 1982. The purpose of the study was to identify and map biological resources on the site and to outline possible biological opportunities and constraints to development of the area.

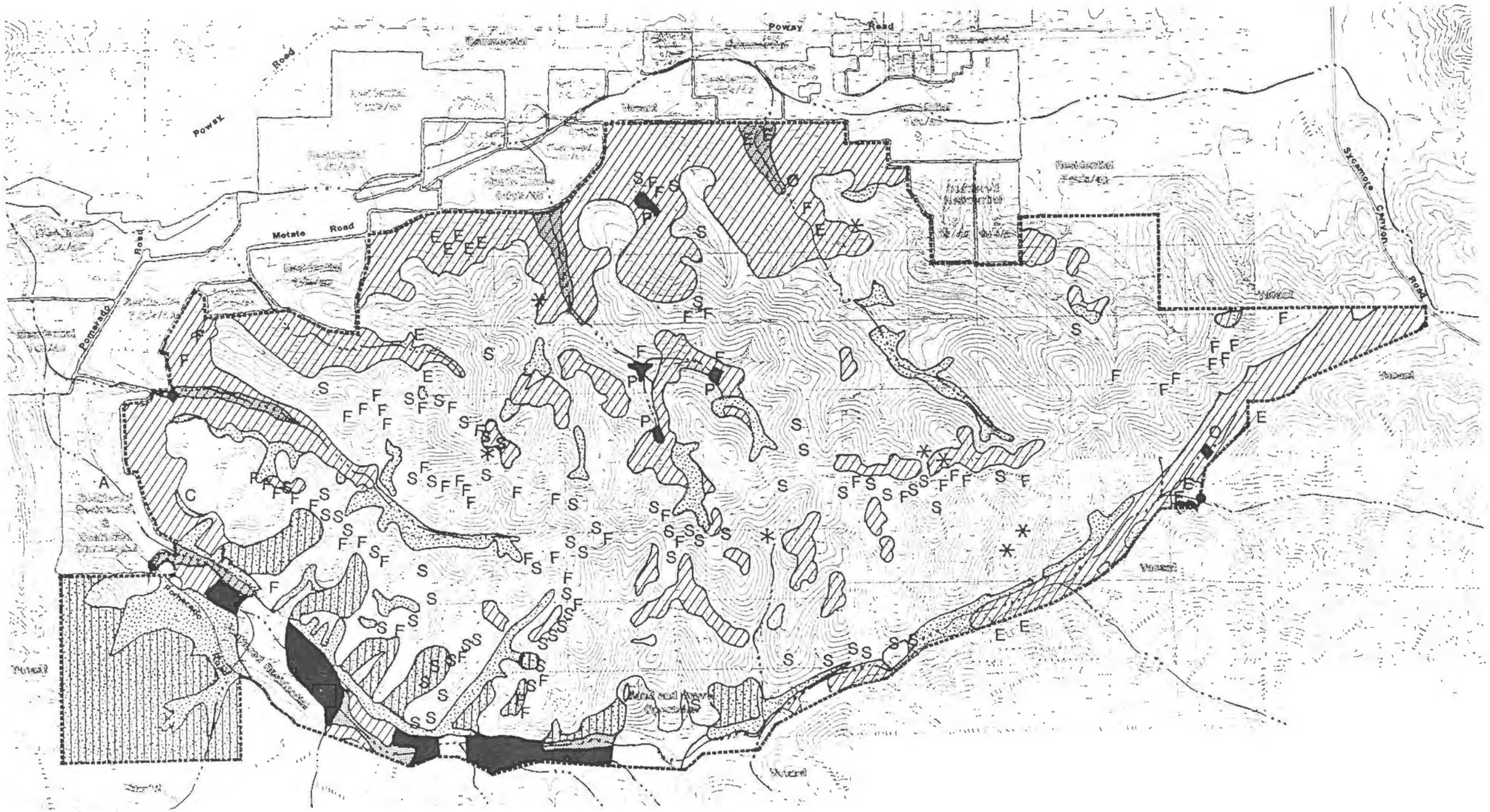
Subsequently, a second complete survey and mapping of biological resources was performed by the PBR Biological Services Division. This assessment was done in late September 1984. Both surveys are referenced in the following text. The PBR biological survey is contained in Appendix E.

High ridgelines and steep slopes with associated canyons characterize the site. These physiographic features combined with the semi-arid climate and the generally thin soils determine the types and frequency of the existing flora and fauna. The vegetation onsite is primarily coastal sage scrub. Large areas of grassland occur along the valley floors and lower slopes of the prominent northern and southern hillsides. To the south along Beeler Creek are riparian areas and chaparral. Residential areas, roads and the Padre Transit mining operation have disturbed the native vegetation only in rather restricted areas onsite. These habitats are discussed below and mapped as plant communities in Exhibit 13.

Coastal Sage Scrub

The coastal sage scrub community occurs primarily in warm, dry, thin-soiled, upland areas onsite. It is the dominant community comprising about 65 percent of the vegetation on the property.

The plant species diversity is high in the coastal sage scrub community. The dominant species are generally shrubs (less than four feet tall) which are dormant during summer drought conditions. The sage scrub stands onsite range from very dense to open and grassy. The most common species of the community is California sagebrush.



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Native wildlife species commonly associated with coastal sage scrub communities are well represented onsite. Species most commonly found in this community in the region include: reptiles such as the side-blotched lizard, western whiptail, red diamondback rattlesnake, and coachwhip; birds such as the common bushtit, Bewick's wren, California quail, loggerhead shrike and brown towhee; mammals such as the Audubon cottontail, black-tailed jackrabbit, dusky-footed woodrat, desert woodrat, San Diego pocketmouse, deer mouse, Pacific kangaroo rat, and coyote.

Chaparral

The chaparral community is found in areas similar to coastal sage scrub (thin soils and steep slopes), but where more moisture is available. Moisture on the project site is concentrated on the northerly or northwesterly facing slopes and at the base of slopes in drainage areas. Two chaparral community types are present, mixed chaparral which comprises about nine percent of the vegetation onsite and chamise chaparral, which comprises about four percent of the vegetation onsite. The latter is comprised mainly of the single species (chamise). Chamise rarely grows over six feet tall, is stemmy, small-leaved, and very dense. Mixed chaparral species are diverse, generally large-leaved and evergreen shrubs. Laurel sumac is dominant and often stands alone. Other plants common to mixed chaparral are poison oak, wild cucumber and saw-toothed goldenbush.

The chaparral community also supports the wildlife common to the coastal sage scrub.

Grassland

Grassland tends to occur on a variety of deeper soils in warm, well-drained areas and comprises about ten percent of the vegetation onsite. Local variations in soil nutrients, moisture, and temperature give rise to variations in species composition.

Remnants of native grassland are still common along slopes, swales, and hilltops. Overgrazing of native grassland has led to replacement by

introduced annual grasses and reduced numbers of native forbs. The remaining native grassland is comprised primarily of the bunchgrass, purple needlegrass with smaller amounts of other perennial grasses such as junegrass plus the native annual grasses foxtail fescue and Pacific fescue. A variety of wildflowers also occur.

European annual grasses and broadleaved plants are the major components of the annual grasslands, soft chess (sometimes with its associate nitgrass), red brome, and ripgutgrass dominate. Valley and swale areas include non-native, herbaceous plants such as bur clovers and mustards. During the rapid spring growth period, a progression in flowering of different species can be expected.

Although heavy grazing of livestock has greatly changed the components of the grassland vegetation, wildlife supported by this community has changed relatively little. Rabbits, squirrels, and gophers are still found, but a grazing muledeer is rarely seen. Medium and small-size mammals are still relatively abundant and diverse in the grasslands. Included are small rodents such as the California vole, valley pocket gopher, and several mouse species. Reptiles such as lizards, kingsnakes, and rattlesnakes are expected. Common bird inhabitants include the western meadowlark, horned lark, various sparrows, and loggerhead shrike. Raptors include the red-tailed hawk, American kestrel, black-shouldered kite, marsh hawk, golden eagle, turkey vulture, and various owls. Other foragers include the raven, common crow, and roadrunner.

Riparian

Water courses onsite tend to be narrow with steep streambanks which restrict the riparian areas to narrow strips of only a few meters width. About four to five percent of the vegetation onsite is riparian. Water flow in these drainage channels is not uniform, but varies with seasonal rains. At times there is only a trickle of water or moist sand remains.

Year-round surface water promotes the development of a willow riparian association. The arroyo willow is the most abundant species. This association is limited onsite due to the usually intermittent streamflow.

The sycamore woodland association is developed where near-surface water is present in stream channels year-round. The California sycamore grows near stream margins. California fuchsia, narrow-leaf milkweed, wild oats, and other grasses are associated species growing under and about the sycamore. The sycamore woodland on the site is sparse.

The majority of the riparian vegetation on the property is composed of riparian brush which grows in the stream channels and on channel margins. Of local importance are stands of milk thistle, cocklebur, and curly dock weedy herbs associated with the more moist riparian areas.

Two spring/seep areas onsite, one in Beeler Canyon and the other located near the property's northwestern border, support herbacious riparian associations (both have been tapped by wells). The Beeler Canyon site is dominated by the low, herbaceous plants saltgrass and rabbit's-foot grass. The northwestern spring site supports herbs such as broad-leaved cattail, Hooker's evening primrose, and white sweet-clover, as well as the herbs found at the Beeler Canyon site. Sycamore woodland and riparian willow associations extend upstream and downstream of this latter site.

A diverse array of animals may be supported by the riparian community. Included are various amphibians, reptiles, birds, and mammals which depend on the community for one or more reasons as a water or food source or for shelter.

A wide range of bird species depend on the broad riparian habitat. Notable species include those mentioned in other communities as well as the western bluebird, hummingbirds, flycatchers, vireos, and warblers. Migrating birds may also utilize these riparian areas during spring and fall.

Raptors are common in the upper branches of trees, particularly the sycamore found in the riparian areas. Significant predatory birds which rely on these areas include the following: red-shouldered hawk, Cooper's hawk, red-tailed hawk, American kestral, black-shouldered kite, and great horned owl.

Disturbed

Disturbed habitats on the proposed project site comprise about five percent of the area. Residences, roads and the onsite mining operation have contributed most to the disturbance of the native communities. Eucalyptus plantings, olive groves, and other ornamentals plantings add to the aesthetics of the area but alter the natural habitats. The very few plant species that exist in these disturbed areas are termed ruderals and are often introduced European weeds.

Several stock ponds occur on the site. Typical plants at the pond margins are cattails, sedges, and willows.

Throughout disturbed areas, animal numbers and species are reduced due primarily to the lack of cover and food.

Habitat Summary

The study area contains small but significant riparian areas which are relatively undisturbed. These areas are restricted to the stream channels on the site. Riparian communities are becoming increasingly valuable to the region due to their development-imposed decline.

The site possesses inherent biological value especially when viewed as a very large, relatively undisturbed area. Added to this is the "edge effect" of plant communities along the ridges and canyons. Where the plant communities intergrade or overlap (ecotones) the wildlife habitat value is greater than that of any single community.

The annual grasslands and remaining native grasslands contain many flowering herbs and provide forage and habitat for a number of birds and mammals which are recognizable to the general public. Sensitive raptor species are supported primarily by the grasslands and riparian areas onsite.

Wildlife Movement

The site could be considered part of a regional wildlife corridor which extends from Penasquitos Lagoon eastward across the property to natural areas east of the site. Animals that utilize the lower slopes' and valley bottoms' dirt roads and trails as movement corridors include muledeer, coyote, and possibly bobcat and fox.

Sensitive Biological Resources

Three sensitive plant species grow onsite: San Diego sagewort, coast barrel cactus and mesa clubmoss (Exhibit 13). The site contains the largest, most dense population of the barrel cactus in the region. Although not considered rare, endangered, or threatened by any state or federal agencies, these plants are considered "rare in California, common elsewhere" by the California Native Plant Society. Other sensitive species are anticipated onsite but were not confirmed due to the fall/ winter survey seasons.

Two lizards, the San Diego coast horned lizard and orange throated whiptail may be found onsite. Other sensitive animal species observed or expected to use the site include primarily birds such as the northern harrier, black-tailed gnatcatcher, cactus wren, loggerhead shrike, black-shouldered kite, and red-shouldered hawk. The harrier, kite, and hawk are raptors (birds of prey). Other raptors expected on the site but not observed include the golden eagle, turkey vulture, American kestrel, and owls.

4.4.2 Impacts

Impacts to biological resources are discussed below.

Direct loss of Vegetation and Habitat. The proposed project is anticipated to remove about fifty percent by area of the total vegetation covering the site. Direct loss of vegetation and wildlife habitat will be concentrated in the central portion of the site proposed primarily for industrial development. Additional vegetation removal for residential land uses (ie., SF-2, RR-C, RR-A, RM) would also occur, with undetermined impacts attributable to the predominatly large lot/rural residential character of development proposed.

Wildlife Displacement. Wildlife will be displaced to surrounding areas of similar habitat. Most of these displaced individuals will be eliminated due to unsuccessful competition in an already filled habitat or ecosystem. Some animal life would be lost directly due to grading and construction activities.

Erosion from Developed Area Runoff Waters. The impervious roofs, streets and paved areas of a developed area greatly increase the amount and accelerate the rate of stormwater runoff. These flows will cause serious erosion unless carefully controlled. A collection system must include energy dissipation devices where slopes are steep. Temporary storage reservoirs may be needed to prevent the accelerated runoff from exceeding the hydraulic capacity of existing stream channels (See Section 4.3.3 HYDROLOGY).

Open Space Development Boundary Interface. A potential impact at the open space/development boundary is wildfire. Fire can cross the line in either direction. The best method to reduce the fire threat is the maintenance of a fuel break along the borders and the placement of buildings back from the crest of hills and ridges.

Fuel breaks which entail a reduction of plant density, introduction of plant species with low fuel mass, and some irrigation will further reduce natural vegetation and reduce wildlife habitat.

Exotic Plant Introduction on Open Space Borders. Escape of exotic garden plants over the boundaries between proposed residential development and open space may occur. In most cases the exotic plants only cross the boundary as far as the influence of irrigation.

Impacts of Access to Remaining Natural Open Space. In areas of natural open space , uncontrolled access, off-road vehicles, and planned recreational uses such as trails will remove additional amounts of the native vegetation and the indirect effects of increased human presence will deter inhabitation by animal life.

Other specific direct and indirect impacts associated with development of the proposed project are identified in the following text.

Removal of Sycamore Woodland and Riparian Brush

Sycamore woodland and riparian brush communities are located primarily within designated open space or rural residential areas at the north, west and south property limits (Subareas 1,4 and 5). Some loss of sycamore woodland areas may result from the extension of major north-south collector roads (Community Road and Midland Road), the possible extension of the north loop road westward to Pomerado Road as a secondary access, the construction of a detention basin in the north loop road area, and industrial development west of the main loop road in Subarea 1.

Isolated riparian brush areas associated with small ponds within Subarea 2 will be eliminated with development. These stock ponds represent an uncommon resource in the area. Significant riparian brush and willow riparian habitat is preserved within the Beeler Creek floodplain west of the Padre Transit operation. These areas along the creek will retain some of their habitat value and opportunities for wildlife movement. However, the value of these areas could be diminished by erosion and sedimentation associated with runoff to Beeler Creek from developed areas of the site.

Removal of Raptor Habitat

The majority of the grassland habitat utilized for raptor foraging is located on the northern, western, and southern slopes which will be primarily retained in natural open space. Therefore, impacts due to grassland removal are anticipated to be insignificant.

Sensitive Species

Project development will result in the loss of significant numbers of coast barrel cactus, mesa clubmoss, and San Diego sagewort associated with the coastal sage scrub community. Loss of coast barrel cactus is considered particularly significant given the high concentrations identified in the site.

Loss of significant coastal sage scrub area onsite can be expected to reduce frequency of use of several declining species, including cactus wren, black-tailed gnatcather, and possibly San Diego horned lizard and orange-throated whiptail.

Cumulative Impacts. Potential cumulative impacts to regional biological resources result from the combined effects of incremental losses of habitat. Of particular regional concern is the loss of riparian habitat and impacts to raptor species. However, the project will not result in significant removal of riparian habitat. Substantial grassland areas are retained in designated open space, conservation, and rural residential areas encompassing much of the project site, and no cumulatively significant effect is anticipated.

Project Alternatives. The high intensity alternative (3) can be expected to produce impacts to biological resources which are very similar to those of the proposed alternative. The impacts could be slightly greater due primarily to more homesites and additional residential areas.

Alternative (1), however, would not have such significant impacts. This alternative proposes fewer roadways, less total development area, and most importantly it proposes only residential development. Opportunities to design residential areas to preserve specific resource features or retain natural migration corridors could result from reduced landform modification requirements relative to industrial developments.

4.4.3 Mitigation Measures

The following mitigation measures are recommended to reduce or eliminate impacts to biological resources.

1. The Development Plan shall include standards and guidelines for the preservation and management of permanent open space, including significant woodland resource areas and grassland slopes. Maintenance of extensive common open space areas shall be the responsibility of the Master Property Owners' Association.

2. Proposed Community Road and Midland Road extensions and the possible extension of the north loop road should be aligned such that loss of sycamore woodland or willow riparian trees is minimized.

3. With the exception of residential use areas, the spoils of earthmoving, including road construction, shall be confined within the identified limits of grading (Exhibit 10). Exposed fill slopes, wherever they occur, should be surfaced with topsoils and revegetated before they are eroded by rainfall. A mulch may be required to protect fill slope surfaces while vegetation is being established.

4. Landscaping standards shall be developed for the vegetation of graded areas and perimeter slopes. Native plants shall be used to the extent possible.

5. Drainage controls including energy dissipators and detention basins shall be utilized to protect riparian areas (eg., Beeler Creek) from the erosion/sedimentation effects of urban runoff (see HYDROLOGY).

6. Parkways and medians in developed areas should be planted or landscaped with trees. Use of native or indigenous species is encourage (eg., California sycamore).

7. Access control methods such as signage and/or fencing should be utilized on trails planned within natural open space or rural residential areas, in order to minimize habitat disruption. Of particular concern is the need to restrict off-road vehicles within grassland slopes.

8. Buffer zones, setbacks, easements, and open space should be utilized in order to separate natural areas from developments. This practice would also help prevent invasion of native plant communities by exotic landscape vegetation and thus preserve the integrity of natural habitats.

9. Provisions should be developed for the preservation, enhancement and management of sycamore woodland and willow riparian areas within areas

zoned Rural Residential A and/or Rural Residential C. Enforcement could be the responsibility of the Master Homeowner's Association through plan review and Covenants, Conditions and Restrictions (CC&Rs).

10. A spring biological resources survey should be conducted to determine the presence or absence of anticipated sensitive species. Survey emphasis should also be placed on sensitive habitats such as sycamore woodlands.

4.5 CULTURAL RESOURCES

A cultural resources records search and field survey were performed by Scientific Resource Surveys, Inc. (SRS) for the proposed South Poway Planned Community area. The survey and records search were in compliance with the city of Poway environmental planning regulations.

The records search consisted of contact with the San Diego Museum of Man and the Cultural Resource Management Center. The walking field survey was conducted over nine days in September and was expanded by two days in December 1984. The survey crew consisted of two consulting archaeologists and two archaeological assistants from the Santa Ysabel and Rincon Indian Reservations. Work performed by SRS, Inc. supplemented and updated a previous field survey and archaeological report for the site by Brian Smith, certified archaeologist.[1]

Though encompassing the entire site, the SRS field search emphasized areas of intermittent or subsurface streamflow and granitic rock exposures as these are likely locations for archeological sites. The SRS Cultural Resources Survey is contained in Appendix F and provides more detailed information. An addendum to the original report, which included a list of modifications to the document, is also contained in Appendix F.

4.5.1 Existing Conditions

ARCHAEOLOGICAL RESOURCES

The records search revealed that several sites have been recorded in the vicinity of the project area. A few village sites have been recorded along with several milling stations, an historic cemetery and scattered artifacts.

Five archaeological sites and an isolated artifact were located during the field surveys of the South Poway property. Three of these sites were

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1 Brian F. Smith, Archaeological Study for Buehler Planning Area, November 1982.

recorded previously; two new sites and the artifact were discovered during the SRS surveys and recorded. Previously recorded sites were given California Archaeological Sites Inventory (CA-SDi) identification numbers and the two recently located sites are temporarily referred to as SRS-1 and SRS-2. The isolated artifact is referred to as SRS-700-3. Mapping of archaeological sites and a site of Native American interest has been provided to the city of Poway. The sites are described in the following paragraphs.

CA-SDi-4608 (Sycamore Canyon Site): This site was recorded in 1970 and was described as a large site displaying groundstone artifacts and bedrock milling features. Except for the milling features located just outside the property boundaries, this site was destroyed by modern residential and horticultural activity. Inspection of the surface area onsite did not reveal any visible cultural remains. Because the Sycamore Canyon site has been described as a large site next to a dependable water source with extensive surface scatters of artifacts, it is possible that subsurface deposits lie near the base of the hill containing the milling features. The potential remains of this archaeological site appear to be located adjacent to, but off of the proposed project site.

W-3347 (Poway Creek site): This site is also centered just off of the northern property boundary and is adjacent to Poway Creek at a canyon mouth. This large habitation site is covered by about eight feet of soil and residential development. Groundstone artifacts and milling features were discovered here in a residential backyard.

The field survey revealed grinding slicks on two boulders about 80 yards south from the expected archaeological site locus and up to one mile south, scattered stone flakes and a remaining core were located. These findings suggest a continuum of cultural material between these food processing sites located up the canyon and the large buried site at the canyon mouth. It is very likely that this material would be buried. This unnamed canyon displays the largest concentration of archaeological sites at the proposed project boundary.

CA-SDi-7231 (boulder site): This small food processing site is located within the Buehler Planning Area about one-half mile up the same canyon referred to above (W-3347). This site consists of four grinding slicks and one shallow bedrock mortar placed on the level surfaces of two large granite boulders. In addition to the recorded milling features described above, the field survey revealed three unifacial, unshaped manos (handheld grinding stones used in conjunction with grinding slicks) which lie at the base of the largest boulder.

SRS-1: This is a scatter of about ten quartzite and basalt flakes exposed in a path about 45 yards west of the boulder site. The exact limits of this flake scatter are unknown due to the dense grasscover.

SRS-2: Located about another one-half mile south of the boulder site and up the same canyon, a single grinding slick was discovered on a pile of jagged granite boulders. Although no other cultural material was observed at the surface, a previous archaeological reconnaissance of the property described the site as a campsite with "lithic debris associated with bedrock outcroppings."

SRS-700-3: Located on the Beeler Creek floodplain, this isolated artifact consists of a small handstone. The disturbed nature of this location suggests that the handstone did not originate here.

NATIVE AMERICAN CONCERNS

Juncus: A stand of a large reed, Juncus, located in Master Plan Subarea 1, was identified by the Ipai members of the survey team. Growing about 275 yards downstream and northwest of a reservoir, this stand of Juncus is probably thriving on a seep from the reservoir. This large reed is used by the Ipai in weaving baskets and this is a traditional gathering area. Within San Diego County, this plant species is becoming rare due to grading and development in the region. Thus, this stand of Juncus is considered a significant cultural resource to this Native American community.

PALEONTOLOGICAL RESOURCES[1]

Generally, the geologic formations onsite are not conducive to fossil formation. The granitic rocks onsite were formed by molten materials which typically do not contain any fossil material. Within the Pomerado Conglomerate and the Stadium Conglomerate, the large cobbles present during deposition tend to break up or crush any fossils which may have been present.

Friars Formation is not known to be a rich source of fossiliferous materials. About ten miles south of the project site, a few mollusk fossils have been reported in the Friars Formation. However, fossils on the project site are considered unlikely. Generally, the site is not considered a significant source of paleontological resources.

4.5.2 Impacts

ARCHAEOLOGICAL RESOURCES

Almost every archaeological site as well as the Juncus stand is located within the proposed limits to grading for the project. One site, the boulder site, is just outside a proposed road alignment.

CA-SDi-4608 (Sycamore Canyon site): The South Poway arterial alignment is proposed to extend east-west across the property boundary near Sycamore Canyon Road in the vicinity of this site. Potential impacts include disruption of possible buried materials or the milling features just offiste.

W-3347 (Poway Creek site): Potential alignments of the Midland Road extension traverse this large archaeological site. There is a high potential for further buried artifacts which would be removed or buried during grading activities.

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1 Telephone conversation with Michael Chapin, GEOCON, Inc., November 1984.

CA-SDi-7231 (boulder site): This food processing site is located just east of the proposed alignment for the Midland Road extension. The boulder site lies within the rural residential (RRC) land use designation and could be impacted by residential construction.

SRS-1: This flake scatter may also lie within the proposed alignment for the Midland Road extension. Grading and construction could destroy or bury this site.

SRS-2: This grinding slick and campsite is located just east of the proposed Midland Road extension alignment, but could be impacted by grading for adjacent industrial land use.

SRS-700-3: Since this isolated artifact is not likely to be located near its origin, no impacts to archaeological resources are anticipated at this location.

Offsite construction activity (eg., street and utility extensions) could result in indirect impacts to any archaeological resources which may be located in surrounding areas.

NATIVE AMERICAN CONCERNS

The stand of Juncus is located just east of the proposed community road extension. Though located within proposed open space, this stand may be impacted by grading at the development edge for industrial land uses. Also, grading for the industrial area could alter natural drainage patterns outside the actual construction area, thereby resulting in indirect impacts to the reed stand.

PALEONTOLOGICAL RESOURCES

No paleontological resources are likely to be encountered and no significant impact is foreseen.

4.5.3 Mitigation Measures

In order to reduce potential cultural resource impacts, the following mitigation measures are recommended as part of the tentative map/development review or road improvement plan level of development processing.

1. CA-SDi-4608 (Sycamore Canyon site): An auger should be used to test for the presence of subsurface cultural material between the hill on the north, Beeler Creek on the south, and Sycamore Canyon Road on the east. If subsurface cultural material is present, the site should be tested further with a series of hand excavation units.

2. W-3347 (Poway Creek site): Systematically excavated auger holes should be placed strategically across the mouth of the canyon to test for the presence of additional subsurface deposits. If subsurface cultural material is present, a series of hand excavation units should be dug to test the deposit further.

3. CA-SDi-7231 (boulder site): If possible, the boulder site as a relatively intact feature should be avoided and left in place during future development of the subject property. Alternatively, a photo documentation, mapping and recordation of this feature should be completed in conjunction with any development processing within the RRC area. In addition, a minimum of three one-meter by one-meter units should be excavated near the eastern (downslope) base of the boulder pile to test for subsurface materials, suggested by the occurrence of isolated artifacts in proximity to the boulder site.

4. SRS-1: The grass should be removed and the flake scatter should be mapped using a transit, then surface collected. In addition, one one-meter by one-meter hand excavation unit should be dug in the center of the site to determine if subsurface cultural material exists.

5. SRS-2: If possible, the boulder containing the slick should be avoided and left in place during development. A one-meter by one-meter hand excavation unit should be placed next to the boulder to determine if a subsurface deposit exists.

6. SRS-700-3: Due to the disturbance of this site and its lack of contextual integrity, it requires no further investigation or management.

7. Juncus: If possible, based on detailed grading plans at the development edge, the Juncus stand should be avoided during construction and grading. Alternatively, the stand could be replanted where suitable either onsite or in the vicinity, or a photo documentation, mapping and description of the site significance as a traditional Native American resource should be completed as a supplement to the Native American ethnohistorical summary included in Appendix F.

8. Prior to the issuance of a grading permit, specific measures for treatment of cultural resources identified during construction shall be prepared by a certified archaeologist and submitted to the Director of Planning Services for approval. Such measures shall specify work stoppage procedures, monitoring requirements and funding responsibilities.

9. Additional literature review or surveys for potential indirect archaeological impacts resulting from offsite construction activity (eg., street and utility extensions, offsite grading) should be required in conjunction with subsequent detailed plans.

4.6 LAND USE

4.6.1 Existing Conditions

ONSITE

The majority of the project site is currently rural, undeveloped, and vacant. A few residences are scattered along the southwestern project boundary in Subarea 5. Grazing of livestock is common on the hillsides and a few stock-watering ponds are present. A few dirt roads traverse the ridgelines. Recreational activities on the site are not frequent but people occasionally use the property for horseback riding, off-road vehicles, shooting, and hiking. Padre Transit is a small mining operation currently mining and processing aggregate along the southern property border in Subarea 5.

The project property is designated for Planned Community (PC) development in the city of Poway Land Use Element. Prior to further specification by the project proponents, this area will retain the city's base land use designations which are listed in the following table.

Table 4
EXISTING LAND USE DESIGNATIONS

Designation	Approximate Acreage	Acres Per Dwelling Unit[1]
Rural Residential-A	2,218	4, 8, 20, or 40
Rural Residential-C	182	1, 2, or 4

Under these land use designations a maximum of 260 dwelling units are permitted within the project property. However, with the overlaying PC designation, the project proponents may propose and define land uses within the property boundaries.

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1 Minimum lot sizes are determined by average slope and community water service availability.

SURROUNDING

A variety of land uses surround the project property. Development within the city of Poway lies adjacent and to the north of the property, development within the city of San Diego lies to the west. To the south and east is vacant land within the city of San Diego limits and the county of San Diego limits, respectively. A county of San Diego island approximately 400 acres in size lies to the southwest between the cities of San Diego and Poway.

Land use to the north and west is residential, with densities ranging from 0.25 to 8.0 dwelling units per acre. The vacant land to the south and east is primarily Naval Reserve property. A General Dynamics missile development site is located south of the property. Ammunition bunkers on the site are still visible.

Exhibit 7 illustrates land uses according to the city of Poway and city of San Diego General Plans.

REGIONAL

Large amounts of land designated as residential, commercial, and industrial exist within the north county area (Table 5). Within individual communities, however, not all uses are represented. For example, within the city of Poway, little land is currently designated for industrial use and commercial use. Table 5 illustrates the percentage of land designated for commercial and industrial land uses within the region and in individual communities. Mira Mesa has designated thirty percent of the community's total acreage to industrial land uses. Six to eight percent is more prevalent.

A shortage of land for industrial development exists in the county as a whole. In particular, a shortage of large parcels of 100 acres or more of industrial land is in short supply, especially in the Interstate 15 vicinity. Large commercial parcels are available.[1]

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1 Opportunities and Constraints Report: Buehler Planning Area, PRC Toups, March 1983, p. 10.

Table 5

INDUSTRIAL AND COMMERCIAL LAND USE ALLOCATION

	Percent of Total Acres	
	Industrial	Commercial
Cities:		
Carlsbad	16	4
Rancho Bernardo	10	3
Oceanside	8	9
San Marcos	8	3
Vista	4	4
Escondido	3	3
Del Mar	2	2
Poway	0.2	1.4
Communities:		
Mira Mesa	30	6
Carmel Mountain Ranch	7	47
Scripps Miramar	7	1
Miramar Ranch North	6	1
Sabre Springs	3	1
Penasquitos East	0	2
San Dieguito	0	2
North County Total	6	3

Several regional transportation studies including the SANDAG Route 125 North Location Analysis (see Section 4.9 TRAFFIC AND CIRCULATION) and other SANDAG forecasts indicate a regional need for an east-west trending arterial to provide linkage to existing major transportation arterials which run north-south. Local and regional agencies identify a need for this link.

4.6.2 Impacts

Implementation of the Planned Community project would involve development of residential, commercial, and industrial land uses with associated roadways, and retention of open space areas. The proposed project would designate Rural Residential, Single Family Residential, Residential Mobile Homes, Commercial/Office, Industrial Park, Light Industrial, and Open Space land uses (see Table 1 in Section 3.5 PROPOSED COMMUNITY PLAN).

ONSITE

Residential development at greater than one unit per acre and particularly development of industrial and commercial land uses will alter the rural

character of the project site. Required recreational uses on the project property will be developed in consultation with the city Community Services Department.

SURROUNDING

The project will provide buffer areas of open space, rural residential and residential land uses between surrounding land uses and commercial/industrial development within the central portion of the property. These "buffer" uses are considered compatible with surrounding residential and vacant land. Slight incompatibility may result at the proposed single family residential (SF-2) development and existing surrounding vacant land interface. Potential for incompatible future land uses occurring in the vacant areas to the south and east of the proposed project property is minimized by the open space buffer within the project. Existing views of the property will be altered and glare and light impacts to existing residences in Subarea 5 are not likely to occur since the industrial/commercial areas are clustered in the central areas of the site.

REGIONAL

A primary objective of the project is to provide employment opportunities in an area with a weak employment base. Implementation of the proposed project would provide 28 acres of land for commercial uses and 644 acres for light industrial uses. This would strengthen the proportion of employment-generating land uses in the city of Poway and in the North County region.

A second objective of the project is to provide a regionally needed east-west transportation linkage. Implementation of the proposed project would create a connecting link, the South Poway Arterial between Interstate 15 and State Road 67.

Cumulative Impacts. Cumulative impacts to land use within the project area include a general change in character in the area undeveloped to developed. Open space and grazing lands will be incrementally converted to residential, industrial and commercial land uses. The area will con-

tinue to develop along the major east-west arterials, with opportunities for vehicular access. The cumulative effects of lighting from urban land uses will add some reflection and glare, particularly to the night sky.

Project Alternatives. The high intensity Alternative (3) will have impacts similar to those of the proposed project but of greater magnitude since Alternative (3) differs primarily by a larger number of residences and by an increase of 35 acres of industrial land uses. The low intensity Alternative (1) impacts would differ due to the lack of industrial or commercial land use. In addition, there is no potential for incompatibility between single family designations and vacant land because the entire site is designated for rural residential use.

4.6.3 Mitigation Measures

1. The project will comply with city of Poway policies regarding shielding and direction of lighting and reflectivity of building materials to minimize reflection and glare.

2. The project shall comply with city of Poway General Plan policies which provide for employment-generating land uses in the Buehler Planning Area (South Poway Planned Community area).

4.7 SOCIOECONOMICS

4.7.1 Existing Conditions

The proposed South Poway Planned Community is located in the Poway Subregional Area (SRA 15) in the North City Major Statistical Area (MSA 1) of the San Diego Region (see Exhibit 14). In January 1984, Subregional Area 15 had a population estimate of 48,246 and 16,095 housing units. The population increased by 12.9 percent since 1980 from 42,730 and the number of households increased by 10.0 percent from 14,639. In 1980, the area had a total employment of 15,266. Employment estimates for January 1984 are not readily available.[1]

The North City MSA had a 1980 population of 436,327, 161,223 households and 221,726 civilian employees. Regional growth forecasts for these areas are completed by the San Diego Association of Governments. The MSA has a civilian employment mix of 31.4 percent in basic industries (exporting) and 68.6 percent in a local serving employment. These data correspond to 137.5 jobs per 100 households.[2]

The 1980 estimates for the city of Poway, which includes only a portion of SRA 15, was 33,178 persons, 10,716 housing units and 11,168 employees. In January 1984, the estimates for the city of Poway are a population of 35,454 and 11,261 housing units. From 1980, the population increased by 6.9 percent and the number of housing units by 5.1 percent. Therefore, the growth rates are much lower for the city of Poway than the entire Poway SRA. Employment estimates for January 1984 are not readily available.[2]

Comparisons of the population and housing growth rates from 1980-84 for the four geographical areas are shown in Table 6. As shown, the city of Poway has the lowest growth rates of the four areas.[3]

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1 San Diego Region 1983 Employment Estimates and January 1, 1984 Population and Housing Estimates, San Diego Association of Governments, July 1984.

2 San Diego Region 1980 Employment Inventory and Regional Growth Forecasts 198D-2000, San Diego Association of Governments.

3 San Diego Region 1983 Estimates.

Table 6

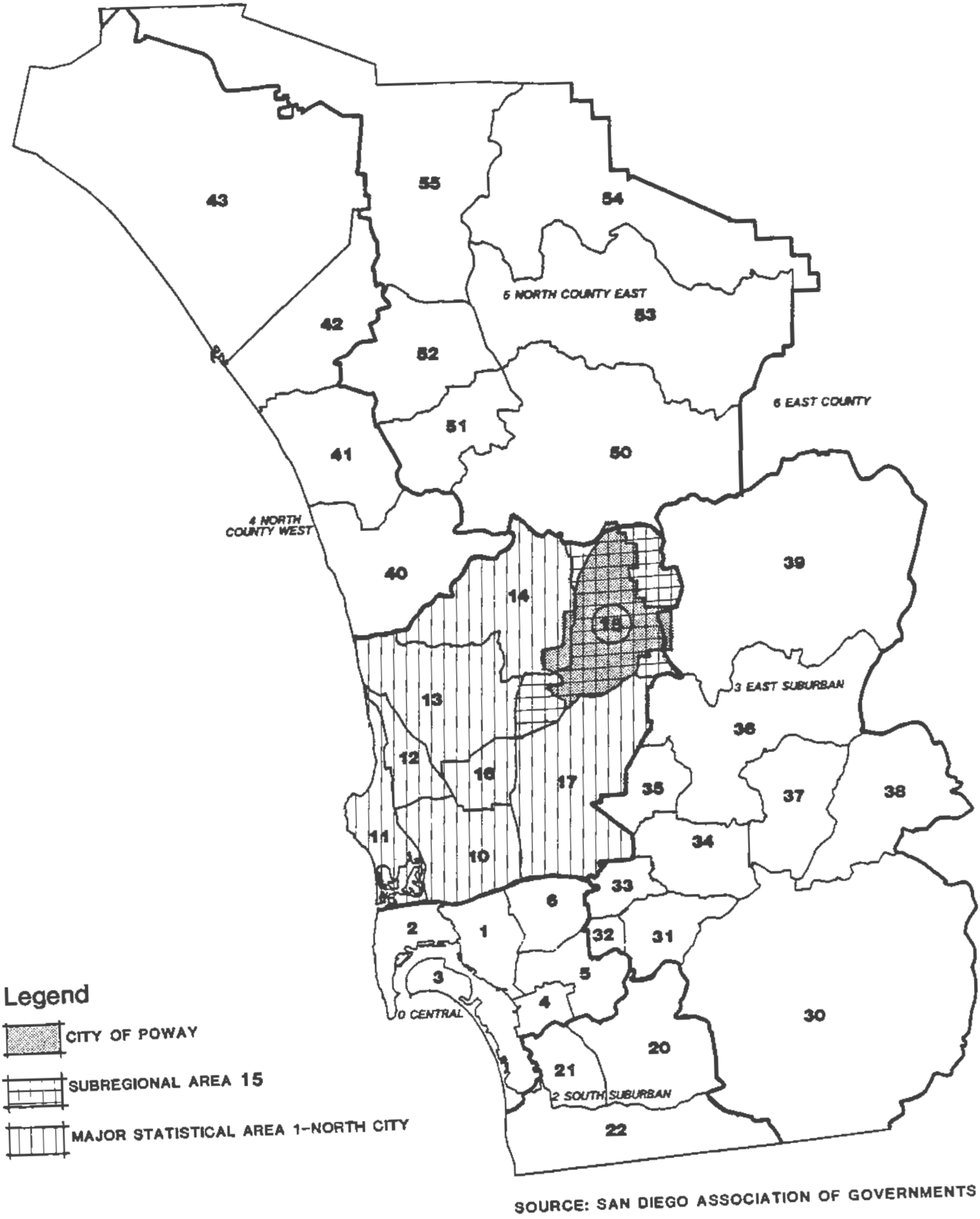
1980-84 GROWTH RATES

	1980-84 Percentage Increase	
	Population	Housing Units
City of Poway	6.9	5.1
Poway (Subregional Area 15)	12.9	10.0
North City Major Statistical Area (MSA 1)	8.8	6.3
San Diego Region	9.6	5.9

Within the city of Poway, the South Poway Planned Community is located in the South Subarea, and within Census Tract 170.11. Only three census tracts (170.10-170.12) are within this subarea. Detailed population, housing and income data are available from the U.S. Census and are included in the Housing Needs Assessment Report, completed by Phelps Company and Van Dell and Associates for the city of Poway in December 1982. The report compiled data on land uses, population, household and housing stock characteristics and market analysis trends in the city. The report is available for public review at the city Planning Services Department.

Growth Forecasts

The San Diego Association of Governments completes growth forecasts for major statistical areas in the region. Table 7 summarizes the projections for MSA 1 (North City). The South Poway Planned Community would likely be developed by 1995-2000. The population of MSA 1 may increase by approximately 211,000 from 1980-2000 or 2.4 percent annually. The number of housing units and civilian employment may grow by 2.8 percent and 2.2 percent, respectively. The growth projections envision approximately 1,500 acres of land being developed annually from 1980-2000. Approximately 1,100 acres of residential land are projected for development annually.



SOURCE: SAN DIEGO ASSOCIATION OF GOVERNMENTS

Statistical Areas
SOUTH POWAY PLANNED COMMUNITY

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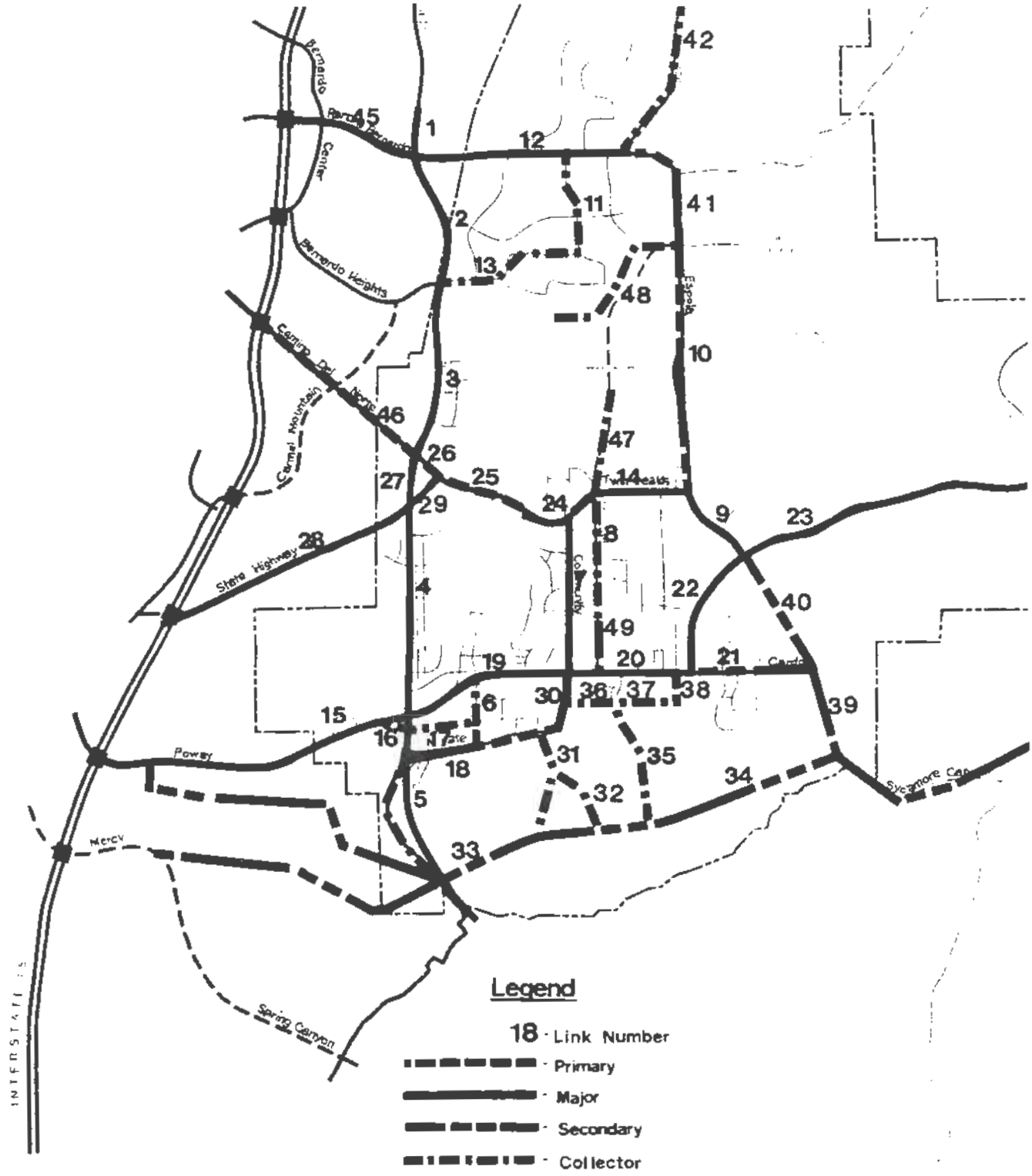
EXHIBIT 14



SOURCE: KUNZMAN AND ASSOCIATES

City of Poway Circulation Element
SOUTH POWAY PLANNED COMMUNITY

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EXHIBIT 15

Table 7

REGIONAL GROWTH FORECAST: MAJOR STATISTICAL AREA 1 - NORTH CITY[1]

1980-2000

	1980	1990	2000	1980-2000 Numeric Change	1980-2000 Percent Change
Total Population	436,327	549,835	646,888	210,561	48.26
Occupied Housing Units	161,223	206,852	253,086	91,863	56.98
Household Size	2.64	2.60	2.51	-	-
Total Civilian Employment	221,726	279,847	320,776	99,050	44.67
Total Uniformed Military	9,566	9,391	9,391	-175	-1.83
Total Acreage	182,580	182,580	182,580	0	0
Developed Acreage	53,865	70,859	83,618	29,753	55.24
Residential Acreage	32,851	46,310	55,204	22,353	68.04
Non-Residential Acres	17,674	20,912	23,417	5,743	32.49
Freeway Acres	3,340	3,638	4,997	1,657	49.61
Vacant Acreage	128,715	111,721	98,962	-29,753	-23.12

4.7.2 Impacts

The South Poway Planned Community proposes 272 dwelling units on 887 acres (0.3 du/acre). Based on a projected factor of 3.0 persons/du, the project will have a population of 816 at buildout. The greater impact of the project is on increased area employment opportunities. Based on an estimated site coverage ratio of 33 percent, the 644 industrial acres may generate approximately 12,300 employees and the 28 acres of commercial/office use may generate 900 employees.[2] Therefore, at buildout, the project may generate 13,200 employees.

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1 Compiled from Final Series 6: Regional Growth Forecasts 1980-2000, San Diego Association of Governments.

2 Based on 33 percent site coverage, 750 square feet per employee for industrial use and 450 square feet for commercial/office use. These factors correspond to 19 employees/acre for industrial use and 32 employees per acre for commercial/office use.

Comparing these projections with the data for MSA 1 in Table 7, assuming the project is completed before year 2000, indicates the project may represent approximately 13 percent of the projected 1980-2000 civilian employment growth in MSA 1 but less than one percent (.005) of the population increase in the same period. Therefore, the significant impacts of the project are related to employment growth and its related impacts. The related impacts of traffic, air quality, and noise are discussed in other sections of this report. The estimates included in the Series 6 Forecast for the project area are based on the current land use designations of the General Plan. Estimates based on the current designations result in projections of 260 dwelling units and a population of 863.

INCOME

The labor force anticipated to be employed by businesses within the South Poway Planned Community will likely have incomes comparable to the metropolitan San Diego area. Table 8 lists selected occupations and average monthly wages for the San Diego area.

Table 8

METROPOLITAN SAN DIEGO SALARY SURVEY - 1984[1]
(Monthly Base Rates for Selected Occupations)

	Average Monthly Wage[2]
Clerk Typist I	$ 1,144
Clerk Typist II	1,250
Data Entry Operator	1,235
Stenographer	1,545
Grounds Caretaker	1,125
Laborer	1,434
Accountant	1,935
Clinical Laboratory Technologist	2,268
Drafting Technician	2,076
Electronic Computer Operator	1,660
Engineer	2,621
Systems Analyst/Programmer	2,374
Custodian	1,284
Food Service Worker	985
Auto/Equipment Mechanic	2,157

1 Metropolitan San Diego Salary Survey, March 1984, city of San Diego Civil Service Commission and San Diego City Schools Compensation Administration Department.

2 Weighted average for base rates for monthly wages for a 40-hour week and a 173.33-hour month.

4.7.3 Mitigation Measures

No mitigation measures are required.

4.8 FISCAL ANALYSIS

The fiscal impact of the South Poway Planned Community upon the city of Poway was evaluated in a fiscal impact analysis prepared by Public Affairs Consultants in November 1984.[1]

A brief summary of the fiscal impact analysis is provided below. The discussion describes the scope of the report, states the report's conclusions and reiterates the major assumptions used in the analysis.[2]

Scope of the Report

The fiscal impact analysis compares the effects of the project on the City's operating revenues and expenditures for each of the three alternative land use plans - including the medium concept which is the subject of this EIR. The analysis also projects the property tax increments available to the Poway Redevelopment Area which will be available to finance capital improvements. (The project is located within this redevelopment district.) Projected city revenues and operating costs are based on analysis of the fiscal year 1984-85 budget. The analysis included allocation of indirect and overhead costs to direct service activities of the City.

Reserve-Cost Summary

The projected costs and revenues for each land use plan were summarized in four-year intervals. Of the three alternatives, the proposed medium land use alternative concept is the most cost effective; the ratio of revenues to costs is consistently greater than the other alternatives. The medium

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1 The full report is available for review at the following address: Planning Services Department, city of Poway, 13202 Poway Road, Poway, California 92064.

2 State and county CEQA guidelines do not require analysis of economic or fiscal impacts in an EIR.

concept land use alternative has net fiscal impact of $941,345 in 2002 (year 16). The revenue-cost ratio for this alternative ranges from 1.52 to 1.57. Both revenues and costs were projected in 1984 dollars to assess the revenue-cost ratio.

Table 9
COMBINED OPERATING FUNDS COSTS AND REVENUES

	Proposed Project			
	Year 4	Year 8	Year 12	Year 16
Revenues	524,639	1,232,487	1,911,983	2,598,666
Costs	344,036	799,840	1,250,999	1,657,321
Net Impact	$ 180,602	$ 432,647	$ 660,984	$ 941,345
Revenue-Cost Ratio	1.52	1.54	1.53	1.57

Source: South Poway Planned Community Fiscal Impact Analysis, Public Affairs Consultants, San Diego, November 1984, page I-5.

In the year 2002, the medium concept may produce a property tax increment of $8,322,018. If 20-year bonds have an average interest rate of 10 percent, the medium concept alternative may support up to $112.8 million in debt. These funds may be used to fund capital improvements in the redevelopment area. The annual revenue projections for the medium concept alternative also exceed the projected annual expenditures for each year from 1986 to 2002.

Major Study Assumptions

The report utilizes the per capita, service standard and average cost methods, the traditional methodologies employed in fiscal analysis. The phasing assumptions and valuation assumptions are key factors in any fiscal analysis. A five percent appreciation rate for both land and improvements and an annual turnover rate of ten percent for residential property were assumed in projecting revenues for the bonding capability of the redevelopment agency. Review of the basic valuation assumptions, as stated in the report by city staff, is also appropriate.

4.9 TRAFFIC AND CIRCULATION

A traffic study for the South Poway Planned Community was conducted by Kunzman Associates in January 1985. This study is summarized in the following text and the report is contained in its entirety in Appendix G.

The Kunzman report traffic analysis was based upon horizon year (buildout of land use assumptions) traffic forecasts from an October 1984 Addendum to the SANDAG Route 125 North Location Analysis.[1] SANDAG traffic forecasts for five of the circulation system alternatives contained in the Route 125 North Location Analysis Addendum are utilized in this traffic study.

SANDAG's small area traffic forecasting process was used to develop horizon year forecasts for each of the alternates. Detailed roadway network and land use assumptions for a primary study area were developed. Both the cities of San Diego and Poway provided the "buildout" land use for the study area based on their general and community plans for the area. The defined primary study area included nearly all the developed areas of the city of Poway and the I-15 corridor communities between Miramar Naval Air Station and Lake Hodges. Outside the study area SANDAG's Regional Transportation Plan highway assumptions and Series VI Regional Growth Forecasts for year 2005 were used.

4.9.1 Existing Conditions

Existing and future traffic conditions and circulation plans for the study area are discussed below.

Surrounding Street System

The proposed project will have access from 1) Pomerado Road via the South Poway Arterial, 2) Metate Road and Community Road, 3) Golden Way/Poway Creek Road and an extension of Midland Road, and 4) Sycamore Canyon Road. Other roadways that will be utilized by the development include Poway Road and Garden Road (Exhibit 3).

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1 San Diego Association of Governments.

In addition to the proposed South Poway Arterial connection to Pomerado Road, an additional collector-level entry has been conceptually proposed from Pomerado Road to the project's North Loop Road. The alignment would follow the major east-west canyon drainage in Subarea 1, intersecting Pomerado Road south of Metate Road and an existing subdivision.

Pomerado Road is a north-south roadway which extends from Miramar Road at Interstate 15 to Highland Valley Road at Interstate 15. Pomerado Road is classified as a major arterial on the city of Poway Circulation Element. It currently serves approximately 9,000 vehicles per day south of Poway Road.

Poway Road is an east-west roadway which extends from Rancho Penasquitos Boulevard at Interstate 15 to Route 67. Poway Road is classified as a major arterial on the city of Poway Circulation Element. West of the city of Poway, the road will be improved to primary arterial standards in conjunction with Sabre Springs development. Within the city, it carries approximately 32,000 vehicles per day between Pomerado Road and Carriage Road, and about 35,000 vehicles per day between Carriage Road and Midland Road.

Table 10

INTERSECTION CAPACITY UTILIZATION[1]

	A.M.		P.M.	
Intersection	ICU	LOS[2]	ICU	LOS
Poway Road/Pomerado Road	.80	D	.82	D
Pomerado/Metate[3]	.43	A	.50	A
Poway Road/Community Road	.63	B	.85	D
Poway Road/Garden Road	.31	A	.60	A
Garden Road/Sycamore Canyon		A		A

1 Source: Buehler Planning Area Traffic Overview; Federhart & Associates, January 1983.

2 Level of Service: A = free flow; B = stable flow/slight delay; C = stable flow/acceptable delay; D = approaching unstable flow; E = unstable flow/congestion.

3 Assumes two northbound lanes on Pomerado approaching Metate.

The intersections of Poway Road with Pomerado Road and Community Road are very near capacity. The remaining key points do have capacity available. Congestion at the Poway/Community intersection occurs partly because people entering Poway from the south on Pomerado Road use the Metate Lane/Community Road link to bypass the Poway/Pomerado intersection. It is difficult to improve this intersection because of development on the west side of Community Road and a deep drainage channel on the east side.

The proposed South Poway Arterial is shown on the city of Poway Circulation Element as an east-west secondary which traverses this area.

Interstate 15 is currently experiencing a significant increase in traffic volumes with the development of several major new planned communities along the corridor. Substantial increases in future traffic are projected regardless of which Route 125 Alternate is ultimately developed. A range of traffic operational improvements are either currently programmed or ultimately anticipated as needed to meet traffic volumes in the 220-240,000 average weekday (ADT) range.

In general, the following observations are made concerning regional conditions:

1. Land uses throughout the I-15 region are such that traffic leaves this area in the morning and returns in the evening, creating a significant imbalance in peak hour flows.

2. Major roads in Sabre Springs (including Poway Road), Miramar Ranch North, and Rancho Carmel will be near capacity if development proceeds as planned, as will I-15 and its interchanges.

3. Congestion on Poway Road, Pomerado Road and major intersections on the roads will continue if additions to the circulation system are not made.

Circulation Elements

Exhibit 15 illustrates the current city of Poway Circulation Element. This figure shows the nature and extent of existing and proposed arterial highways which are anticipated to serve the ultimate development depicted by the Land Use Element of the city General Plan (refer to Section 4.6, LAND USE).

Table 11 shows key roadway segments which are analyzed as part of the traffic study, and identifies the master planned classification for each link based upon the city of Poway Circulation Element.

Table 11

POWAY MASTER PLANNED ROADWAY CLASSIFICATIONS

Link No.	Roadway	Classification
33/34	South Poway Arterial	Secondary
39	Sycamore Canyon Road	Secondary
15/19/20/22	Poway Road	Major
21	Garden Road	Secondary
49	Midland Road	Secondary
30/7	Community Road	Secondary/Major
18	Metate Road	Secondary
4/5	Pomerado Road	Major
-	Interstate 15	Freeway

Maximum daily volumes for roadway classifications are illustrated in the following table.

Table 12

ROADWAY CAPACITIES

Classification	Description	Daily Design Capacity*
Local	Two Lanes Undivided	6,000 VPD
Collector	Two Lanes Undivided	10,000 VPD
Secondary	Four Lanes Undivided	20,000 VPD
Major	Four Lanes Divided	30,000 VPD
Primary	Six Lanes Divided	45,000 VPD
Freeway	Ten Lanes Divided	175,000 VPD

* VPD = vehicles per day

The San Diego County Circulation Element also provides for roadway classifications in the vicinity of the project site (Exhibit 16). Some variations in the classification and alignment of various roadways exist between the San Diego County Circulation Element and the city of Poway Circulation Element.

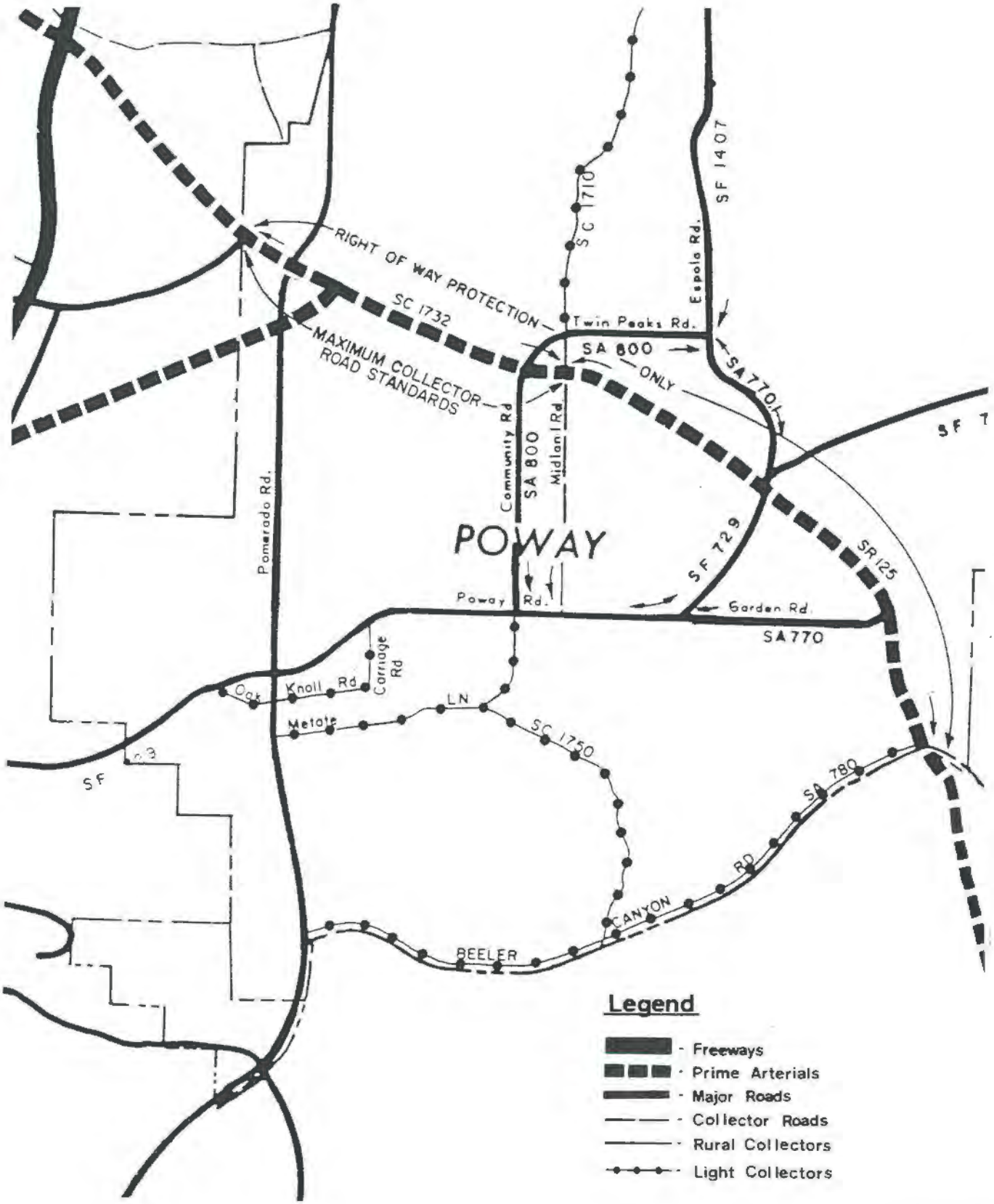
SANDAG Route 125 North Location Analysis

A major purpose of the Route 125 North Location Analysis was to evaluate the level of future travel service provided along alternative alignments for Route 125 and evaluate regional traffic demand implications for various network alternatives. The five SANDAG network alternatives evaluated in the Kunzman study varied with respect to several factors including the extent and classification of Route 125 through the city of Poway and north of Santee, and the inclusion of a westerly extension of the South Poway Arterial, proposed to connect to Interstate 15. Each of the alternates include the designation of the South Poway Arterial as a four-lane roadway with an eastern extension (SC780) to Route 67.

No-Build Alternative: For comparison purposes, a Route 125 no-build alternative was evaluated. The no-build alternative is generally the same base roadway network as the other alternates with the deletion of Route 125 north of Route 52 in Santee. The no-build alternative also does not include an extension of the South Poway Arterial west of Pomerado Road.

Alternative 8: Alternative 8 designates the portion of Route 125 from the South Poway Arterial to Community Road as a down-scoped four-lane expressway/prime arterial facility. In regard to the South Poway Arterial, Alternative 8 includes a Miramar Ranch North connection to the Mercy Road interchange at Interstate 15.

Alternative 10: Alternative 10 evaluates Route 125 as a six-lane expressway from Route 52 in Santee to Interstate 15 at the Camino del Norte (SA680) interchange. This alternative does not include an extension of the South Poway Arterial west of Pomerado Road.

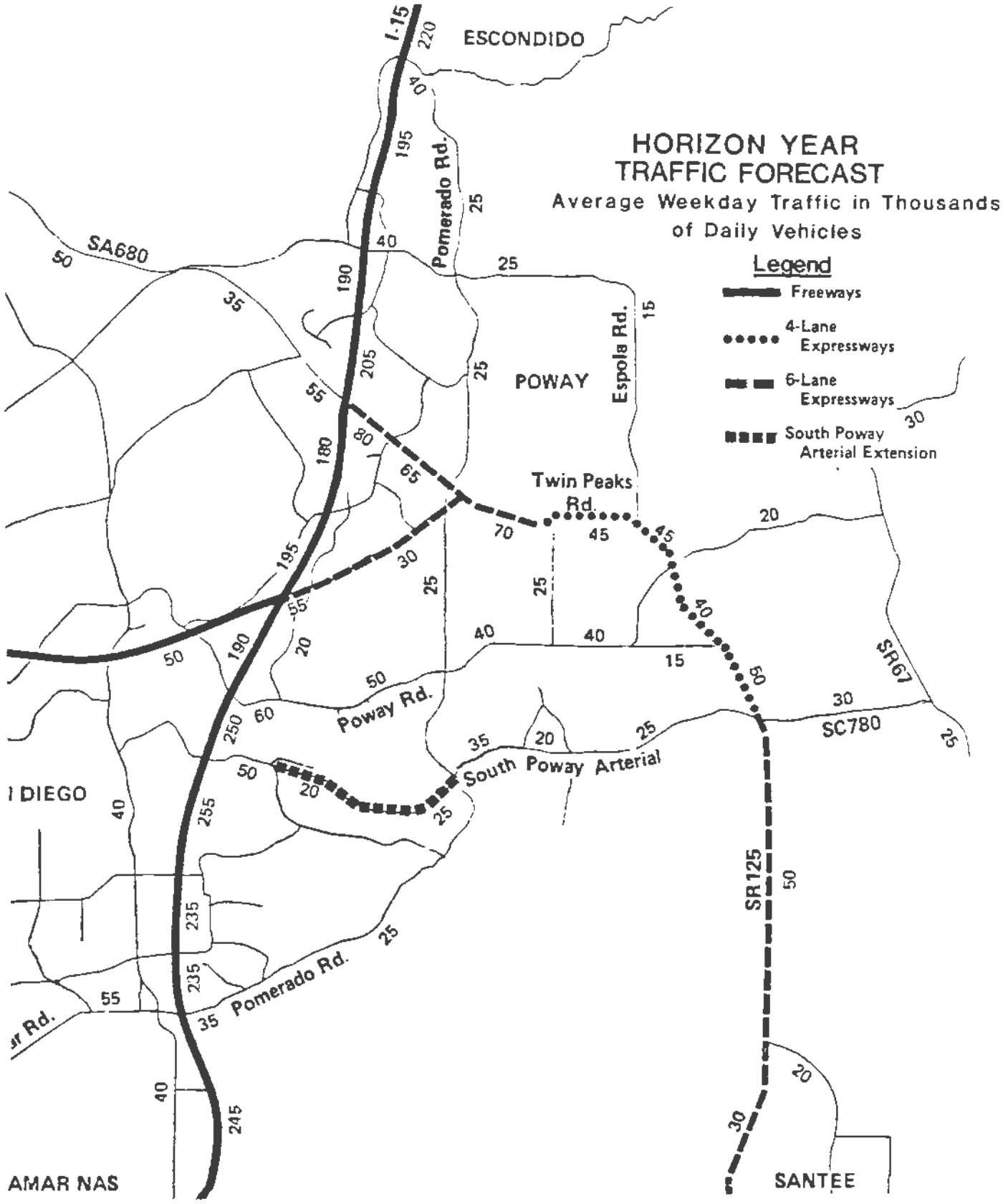


SOURCE: KUNZMAN AND ASSOCIATES

San Diego County Circulation Element
SOUTH POWAY PLANNED COMMUNITY

pbr

EXHIBIT 16

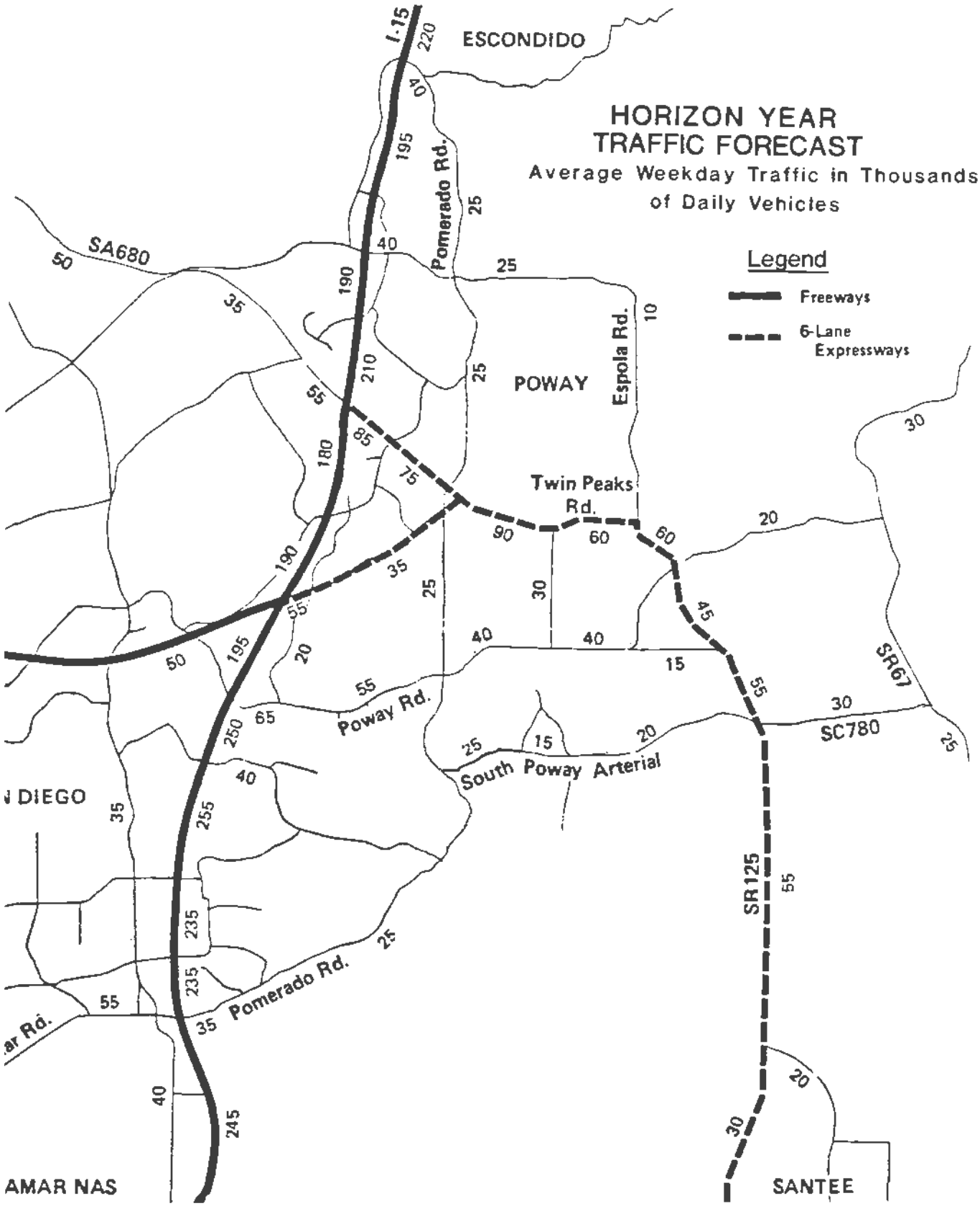


SOURCE: SANDAG

Alternative 8
SOUTH POWAY PLANNED COMMUNITY

pbr

EXHIBIT 18

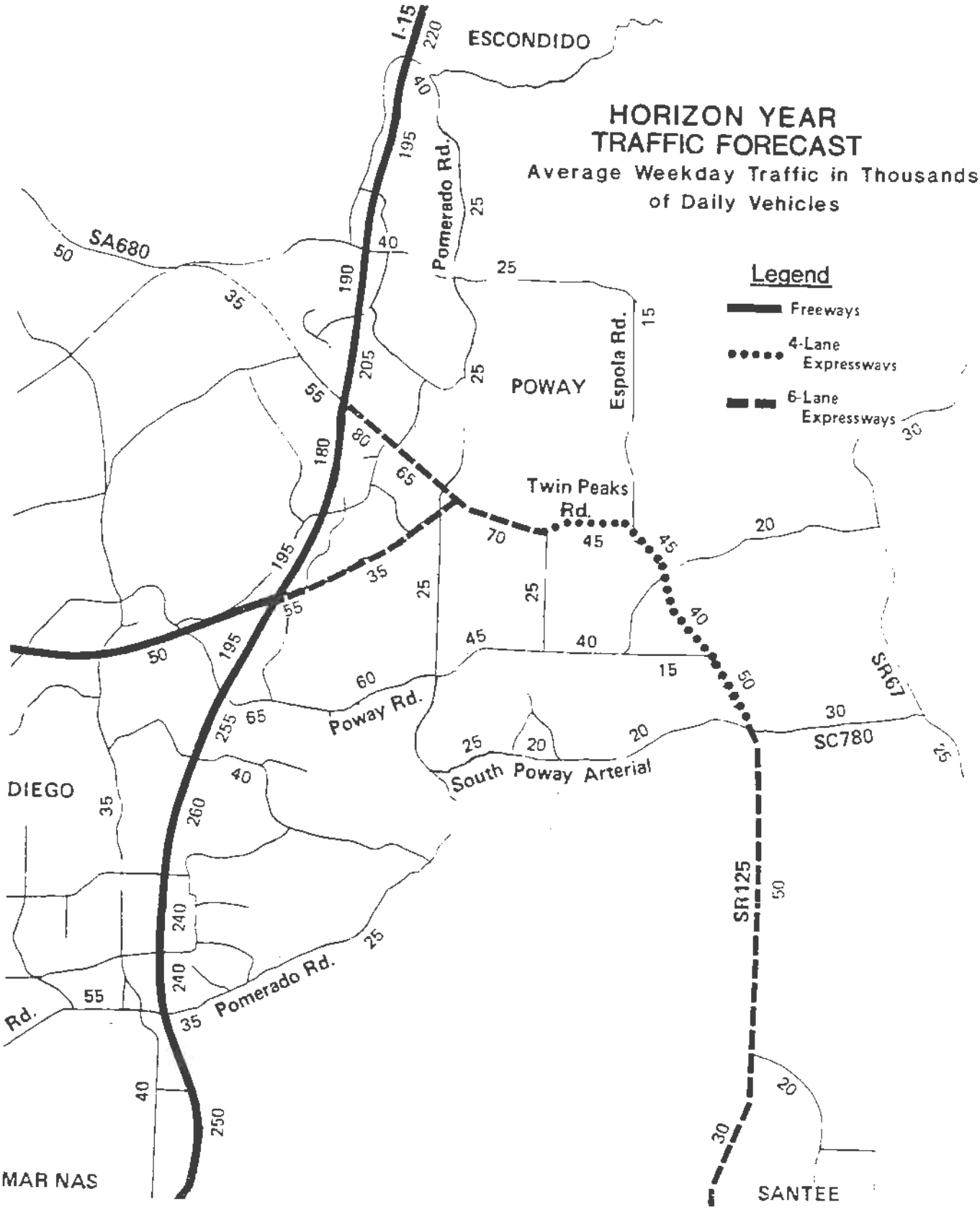


SOURCE: SANDAG

Alternative 10
SOUTH POWAY PLANNED COMMUNITY

pbr

EXHIBIT 19



SOURCE: SANDAG

Alternative 11
SOUTH POWAY PLANNED COMMUNITY

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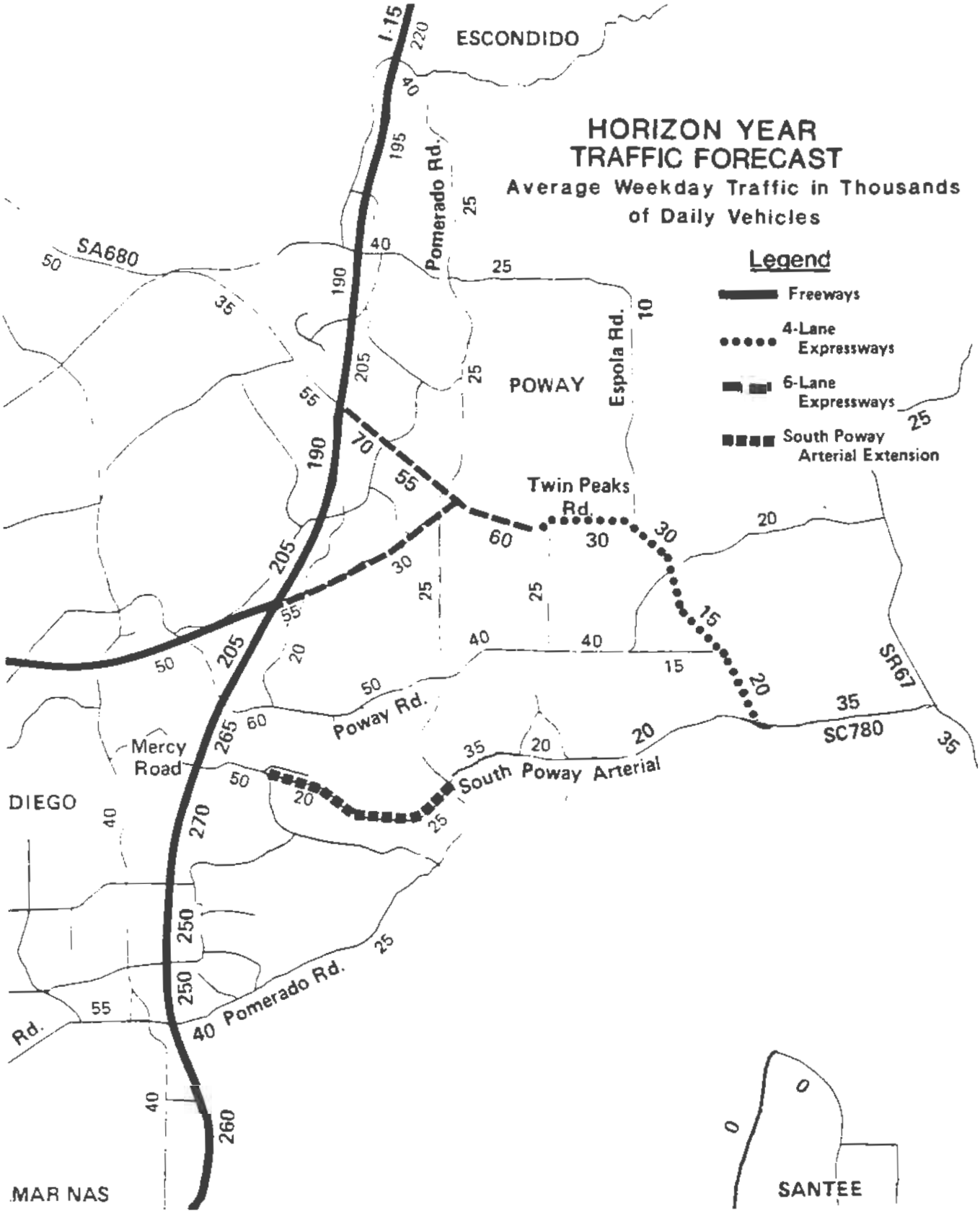
EXHIBIT 20



SOURCE: SANDAG

Alternative 12
SOUTH POWAY PLANNED COMMUNITY

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EXHIBIT 21

Table 13

Volume to Capacity Ratios

SANDAG "NO BUILD" ALTERNATIVE

Roadway	Segment	With South Poway PC		Without South Poway PC	
		Volume	V/C Ratio	Volume	V/C Ratio
South Poway Arterial	East of Sycamore Canyon Road	21,300	1.07	13,800	.69
South Poway Arterial	West of Sycamore Canyon Road	14,800	.74	5,300	.27
Sycamore Canyon Road	North of South Poway Arterial	11,400	.57	9,400	.47
Clair Drive	South of Garden Road	600	.10	0	0
Garden Road	East of Clair Drive	15,500	.78	14,400	.72
Garden Road	West of Clair Drive	18,500	.93	16,700	.84
Golden Way	South of Poway Road	4,500	.23	2,300	.12
Poway Road	West of Golden Way	28,300	.94	27,200	.91
Poway Road	North of Garden Road	16,500	.55	14,900	.50
Gate Drive	South of Poway Road	3,800	.38	--	--
Poway Road	West of Gate Drive	34,400	1.15	33,000	1.10
Christman Lane	South of Poway Road	8,500	1.42	4,900	.82
Midland Road	North of Poway Road	7,700	.39	6,700	.34
Poway Road	East of Midland Road	39,600	1.32	37,900	1.26
Community Road	South of Poway Road	14,400	.72	2,200	.11
Community Road	North of Poway Road	28,700	.96	19,800	.66
Poway Road	East of Community Road	45,800	1.53	44,300	1.46
Poway Road	West of Community Road	43,200	1.44	40,800	1.36
Carriage Road	South of Poway Road	7,700	.77	7,200	.72
Carriage Road	North of Poway Road	1,800	.30	1,500	.25
Poway Road	East of Carriage Road	43,500	1.45	42,400	1.41
Poway Road	West of Carriage Road	45,000	1.50	44,400	1.48
Matate Lane	East of Pomerado Road	13,100	.66	4,800	.24
Pomerado Road	South of Matate Lane	18,000	.60	9,400	.31
Pomerado Road	North of Matate Lane	26,500	.88	10,600	.35
Pomerado Road	North of Poway Road	25,800	.86	17,700	.59
Poway Road	East of Pomerado Road	45,500	1.52	44,900	1.50
Poway Road	West of Pomerado Road	59,100	1.97	51,400	1.71
South Poway Arterial	East of Pomerado Road	29,100	1.45	8,800	.44
South Poway Arterial	West of Pomerado Road	100	Nom	--	--
Pomerado Road	South of South Poway Arterial	27,100	.90	15,600	.52
Pomerado Road	North of South Poway Arterial	18,400	.61	9,600	.32
Unnamed Roadway	South of South Poway Planned Community	600	.10	500	.08
Pomerado Road	East of Interstate 15	37,500	1.25	30,300	1.01
Mira Mesa Boulevard	East of Interstate 15	34,100	1.14	33,900	1.13
Mercy Road	East of Interstate 15	39,400	1.31	39,100	1.30
Poway Road	East of Interstate 15	68,900	2.30	64,000	2.13
Route 56	East of Interstate 15	56,000	1.87	54,200	1.81
Camino Del Norte	East of Interstate 15	71,700	1.59	64,300	1.43
Interstate 15	South of Pomerado Road	264,500	1.51	259,400	1.48
Interstate 15	South of Mira Mesa Boulevard	251,100	1.51	251,000	1.43
Interstate 15	South of Mercy Road	266,600	1.52	265,400	1.52
Interstate 15	South of Poway Road	266,400	1.52	264,800	1.51
Interstate 15	South of Route 56	228,900	1.31	227,600	1.30
Interstate 15	South of Camino Del Norte	190,400	1.09	190,300	1.09
Interstate 15	North of Camino Del Norte	204,400	1.17	199,900	1.14

Table 14

Volume to Capacity Ratios

SANDAG ALTERNATIVE 8

Roadway	Segment	With South Poway PC		Without South Poway PC	
		Volume	V/C Ratio	Volume	V/C Ratio
South Poway Arterial	East of Sycamore Canyon Road	20,000	1.00	9,100	.46
South Poway Arterial	West of Sycamore Canyon Road	21,300	1.07	8,800	.42
Sycamore Canyon Road	North of South Poway Arterial	3,600	.18	1,600	.08
Clair Drive	South of Garden Road	600	.10	0	0
Garden Road	East of Clair Drive	20,100	1.01	19,200	.96
Garden Road	West of Clair Drive	22,700	1.14	21,100	1.06
Golden Way	South of Poway Road	5,500	.28	3,500	.18
Poway Road	West of Golden Way	31,100	1.04	30,100	1.00
Poway Road	North of Garden Road	15,900	.53	14,400	.48
Gate Drive	South of Poway Road	3,700	.37	--	--
Poway Road	West of Gate Drive	38,100	1.27	36,900	1.23
Christmen Lane	South of Poway Road	8,800	1.47	5,500	.92
Midland Road	North of Poway Road	7,600	.38	6,600	.33
Poway Road	East of Midland Road	40,400	1.35	38,900	1.30
Community Road	South of Poway Road	14,200	.71	3,700	.19
Community Road	North of Poway Road	26,700	.89	19,300	.64
Poway Road	East of Community Road	45,000	1.50	43,700	1.46
Poway Road	West of Community Road	42,700	1.42	40,600	1.35
Carriage Road	South of Poway Road	7,400	.74	7,000	.70
Carriage Road	North of Poway Road	1,700	.28	1,400	.23
Poway Road	East of Carriage Road	41,400	1.38	40,500	1.35
Poway Road	West of Carriage Road	42,600	1.42	42,100	1.40
Metate Lane	East of Pomerado Road	12,200	.61	5,300	.27
Pomerado Road	South of Metate Lane	12,700	.42	8,100	.27
Pomerado Road	North of Metate Lane	20,200	.67	9,900	.33
Pomerado Road	North of Poway Road	25,900	.86	20,000	.67
Poway Road	East of Pomerado Road	42,500	1.42	42,200	1.41
Poway Road	West of Pomerado Road	49,900	1.66	45,600	1.52
South Poway Arterial	East of Pomerado Road	38,200	1.91	15,600	.78
South Poway Arterial	West of Pomerado Road	24,500	1.23	11,200	.56
Pomerado Road	South of South Poway Arterial	17,900	.60	13,100	.44
Pomerado Road	North of South Poway Arterial	13,800	.46	9,400	.31
Unnamed Roadway	South of South Poway Planned Community	600	.10	500	.08
Pomerado Road	East of Interstate 15	34,900	1.16	32,000	1.07
Mira Mesa Boulevard	East of Interstate 15	30,700	1.02	30,500	1.02
Mercy Road	East of Interstate 15	49,800	1.66	40,700	1.36
Poway Road	East of Interstate 15	59,300	1.98	57,700	1.92
Route 56	East of Interstate 15	52,700	1.76	52,300	1.74
Camino Del Norte	East of Interstate 15	80,100	1.78	74,000	1.64
Interstate 15	South of Pomerado Road	243,500	1.39	239,100	1.37
Interstate 15	South of Mira Mesa Boulevard	236,200	1.35	233,000	1.33
Interstate 15	South of Mercy Road	254,400	1.45	249,200	1.42
Interstate 15	South of Poway Road	249,800	1.43	248,200	1.42
Interstate 15	South of Route 56	205,800	1.18	204,400	1.17
Interstate 15	South of Camino Del Norte	178,100	1.02	176,000	1.02
Interstate 15	North of Camino Del Norte	203,100	1.16	199,000	1.14

Table 15

Volume to Capacity Ratios

SANDAG ALTERNATIVE 10

Roadway	Segment	With South Poway PC		Without South Poway PC	
		Volume	V/C Ratio	Volume	V/C Ratio
South Poway Arterial	East of Sycamore Canyon Road	16,800	.84	5,400	.27
South Poway Arterial	West of Sycamore Canyon Road	18,500	.93	4,400	.22
Sycamore Canyon Road	North of South Poway Arterial	3,600	.19	1,000	.05
Clair Drive	South of Garden Road	800	.13	200	.03
Garden Road	East of Clair Drive	20,800	1.04	19,900	1.00
Garden Road	West of Clair Drive	23,400	1.17	21,800	1.09
Golden Way	South of Poway Road	3,400	.17	1,800	.09
Poway Road	West of Golden Way	27,700	.92	26,600	.89
Poway Road	North of Garden Road	10,500	.35	9,300	.31
Gate Drive	South of Poway Road	3,900	.39	--	--
Poway Road	West of Gate Drive	33,100	1.10	31,800	1.06
Christmas Lane	South of Poway Road	7,100	1.18	3,700	.62
Midland Road	North of Poway Road	7,900	.40	7,000	.35
Poway Road	East of Midland Road	38,000	1.27	26,300	.88
Community Road	South of Poway Road	14,200	.71	1,600	.08
Community Road	North of Poway Road	28,500	.95	19,400	.65
Poway Road	East of Community Road	43,600	1.45	42,100	1.40
Poway Road	West of Community Road	41,900	1.40	39,600	1.32
Carriage Road	South of Poway Road	7,800	.78	7,400	.74
Carriage Road	North of Poway Road	1,800	.30	1,500	.25
Poway Road	East of Carriage Road	39,300	1.31	38,200	1.27
Poway Road	West of Carriage Road	40,400	1.35	39,900	1.33
Metate Lane	East of Pomerado Road	11,800	.59	3,800	.19
Pomerado Road	South of Metate Lane	15,400	.51	7,700	.26
Pomerado Road	North of Metate Lane	29,200	.97	14,500	.48
Pomerado Road	North of Poway Road	29,200	.97	23,900	.80
Poway Road	East of Pomerado Road	40,300	1.34	39,700	1.32
Poway Road	West of Pomerado Road	52,800	1.76	43,600	1.45
South Poway Arterial	East of Pomerado Road	25,100	1.26	7,800	.39
South Poway Arterial	West of Pomerado Road	NA	NA	NA	NA
Pomerado Road	South of South Poway Arteria	23,200	.77	22,800	.76
Pomerado Road	North of South Poway Arteria	16,200	.54	8,300	.28
Unnamed Roadway	South of South Poway Planned Community	600	.10	500	.08
Pomerado Road	East of Interstate 15	35,100	1.17	29,500	.98
Mira Mesa Boulevard	East of Interstate 15	33,700	1.12	33,600	1.12
Mercy Road	East of Interstate 15	39,400	1.31	39,200	1.31
Poway Road	East of Interstate 15	63,200	2.11	57,300	1.91
Route 56	East of Interstate 15	57,100	1.90	56,300	1.88
Camino Del Norte	East of Interstate 15	86,000	1.91	79,300	1.76
Interstate 15	South of Pomerado Road	243,500	1.39	239,600	1.37
Interstate 15	South of Mira Mesa Boulevard	236,200	1.35	236,100	1.35
Interstate 15	South of Mercy Road	252,700	1.44	251,400	1.44
Interstate 15	South of Poway Road	251,900	1.44	250,200	1.43
Interstate 15	South of Route 56	209,900	1.20	207,800	1.19
Interstate 15	South of Camino Del Norte	178,700	1.02	178,600	1.02
Interstate 15	North of Camino Del Norte	208,700	1.19	204,000	1.17

Table 16

Volume to Capacity Ratios

SANDAG ALTERNATIVE 11

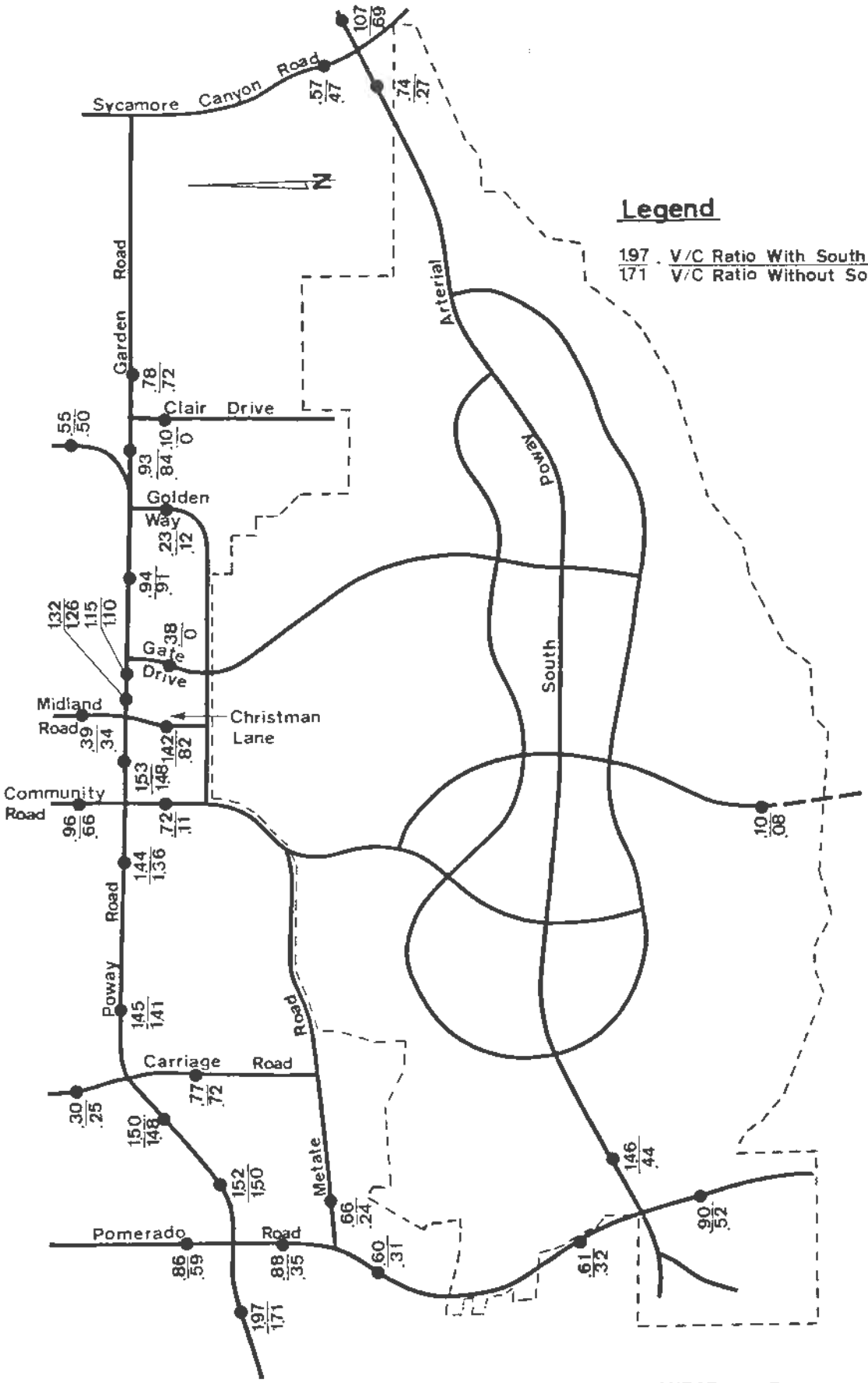
Roadway	Segment	With South Poway PC		Without South Poway PC	
		Volume	V/C Ratio	Volume	V/C Ratio
South Poway Arterial	East of Sycamore Canyon Road	17,800	.89	6,200	.31
South Poway Arterial	West of Sycamore Canyon Road	19,100	.96	5,400	.27
Sycamore Canyon Road	North of South Poway Arterial	3,100	.16	1,000	.05
Clair Drive	South of Garden Road	600	.10	--	--
Garden Road	East of Clair Drive	20,500	1.03	19,500	.98
Garden Road	West of Clair Drive	23,100	1.16	21,400	1.07
Golden Way	South of Poway Road	4,400	.22	2,400	.12
Poway Road	West of Golden Way	32,000	1.07	30,900	1.03
Poway Road	North of Garden Road	15,300	.51	13,800	.46
Gate Drive	South of Poway Road	3,800	.38	--	--
Poway Road	West of Gate Drive	37,300	1.24	36,000	1.20
Christman Lane	South of Poway Road	8,400	1.40	4,900	.82
Midland Road	North of Poway Road	7,600	.38	6,600	.33
Poway Road	East of Midland Road	41,700	1.39	40,100	1.34
Community Road	South of Poway Road	18,000	.90	7,200	.36
Community Road	North of Poway Road	26,600	.89	18,900	.63
Poway Road	East of Community Road	46,500	1.55	45,200	1.51
Poway Road	West of Community Road	43,900	1.46	41,600	1.39
Carriage Road	South of Poway Road	7,700	.77	7,200	.72
Carriage Road	North of Poway Road	1,700	.28	1,400	.23
Poway Road	East of Carriage Road	43,600	1.45	42,500	1.42
Poway Road	West of Carriage Road	45,000	1.50	44,400	1.48
Metate Lane	East of Pomerado Road	13,600	.68	5,200	.26
Pomerado Road	South of Metate Lane	16,700	.56	8,100	.27
Pomerado Road	North of Metate Lane	26,100	.87	10,100	.34
Pomerado Road	North of Poway Road	25,700	.86	18,900	.63
Poway Road	East of Pomerado Road	45,000	1.50	44,400	1.48
Poway Road	West of Pomerado Road	58,000	1.93	49,900	1.66
South Poway Arterial	East of Pomerado Road	26,800	1.34	8,400	.42
South Poway Arterial	West of Pomerado Road	NA	NA	NA	NA
Pomerado Road	South of South Poway Arterial	23,600	.79	14,100	.47
Pomerado Road	North of South Poway Arterial	17,500	.58	8,600	.29
Unnamed Roadway	South of South Poway Planned Community	600	.10	500	.08
Pomerado Road	East of Interstate 15	35,900	1.20	30,300	1.01
Mira Mesa Boulevard	East of Interstate 15	33,800	1.13	33,600	1.12
Mercy Road	East of Interstate 15	38,800	1.33	39,500	1.32
Poway Road	East of Interstate 15	66,900	2.23	61,200	2.04
Route 56	East of Interstate 15	53,700	1.79	52,800	1.76
Camino Del Norte	East of Interstate 15	80,900	1.80	74,300	1.65
Interstate 15	South of Pomerado Road	244,900	1.40	261,000	1.38
Interstate 15	South of Mira Mesa Boulevard	237,300	1.36	237,200	1.36
Interstate 15	South of Mercy Road	253,100	1.45	251,900	1.44
Interstate 15	South of Poway Road	253,000	1.45	251,400	1.44
Interstate 15	South of Route 56	216,700	1.24	214,700	1.23
Interstate 15	South of Camino Del Norte	177,600	1.81	177,500	1.01
Interstate 15	North of Camino Del Norte	203,300	1.16	198,800	1.14

Table 17

Volume to Capacity Ratios

SANDAG ALTERNATIVE 12

Roadway	Segment	With South Poway PC		Without South Poway PC	
		Volume	V/C Ratio	Volume	V/C Ratio
South Poway Arterial	East of Sycamore Canyon Road	11,700	.59	4,900	.25
South Poway Arterial	West of Sycamore Canyon Road	14,200	.71	5,100	.26
Sycamore Canyon Road	North of South Poway Arterial	3,200	.16	900	.05
Clair Drive	South of Garden Road	500	.08	--	--
Garden Road	East of Clair Drive	16,100	.81	15,100	.76
Garden Road	West of Clair Drive	19,000	.95	17,400	.87
Golden Way	South of Poway Road	6,100	.31	4,200	.21
Poway Road	West of Golden Way	28,000	.93	27,000	.90
Poway Road	North of Garden Road	17,200	.57	15,900	.53
Gate Drive	South of Poway Road	3,600	.36	--	--
Poway Road	West of Gate Drive	33,700	1.12	32,500	1.08
Christman Lane	South of Poway Road	9,200	1.53	5,800	.97
Midland Road	North of Poway Road	7,600	.38	6,700	.34
Poway Road	East of Midland Road	38,700	1.29	37,100	1.24
Community Road	South of Poway Road	15,900	.80	3,800	.19
Community Road	North of Poway Road	28,200	.94	19,300	.64
Poway Road	East of Community Road	44,300	1.48	42,900	1.43
Poway Road	West of Community Road	41,200	1.37	39,000	1.30
Carriage Road	South of Poway Road	7,500	.75	7,000	.70
Carriage Road	North of Poway Road	1,800	.30	1,500	.25
Poway Road	East of Carriage Road	40,400	1.35	39,500	1.32
Poway Road	West of Carriage Road	41,800	1.39	41,300	1.38
Metate Lane	East of Pomerado Road	11,900	.60	5,000	.25
Pomerado Road	South of Metate Lane	13,400	.45	9,300	.31
Pomerado Road	North of Metate Lane	20,200	.67	10,500	.35
Pomerado Road	North of Poway Road	24,100	.80	19,100	.64
Poway Road	East of Pomerado Road	42,400	1.41	42,100	1.40
Poway Road	West of Pomerado Road	51,400	1.71	46,900	1.56
South Poway Arterial	East of Pomerado Road	39,000	1.95	15,100	.76
South Poway Arterial	West of Pomerado Road	23,200	1.16	9,000	.45
Pomerado Road	South of South Poway Arterial	21,300	.71	15,500	.52
Pomerado Road	North of South Poway Arterial	14,300	.48	10,400	.35
Unnamed Roadway	South of South Poway Planned Community	600	.10	500	.08
Pomerado Road	East of Interstate 15	38,800	1.29	35,000	1.17
Mira Mesa Boulevard	East of Interstate 15	30,700	1.02	30,600	1.02
Mercy Road	East of Interstate 15	49,000	1.63	39,000	1.30
Poway Road	East of Interstate 15	61,300	2.04	59,600	1.99
Route 56	East of Interstate 15	54,600	1.82	54,100	1.80
Camino Del Norte	East of Interstate 15	71,200	1.58	64,500	1.43
Interstate 15	South of Pomerado Road	262,200	1.50	256,700	1.47
Interstate 15	South of Mira Mesa Boulevard	251,400	1.44	247,500	1.41
Interstate 15	South of Mercy Road	268,600	1.53	262,700	1.50
Interstate 15	South of Poway Road	263,200	1.50	261,800	1.50
Interstate 15	South of Route 56	229,700	1.31	228,400	1.31
Interstate 15	South of Camino Del Norte	189,800	1.08	189,700	1.08
Interstate 15	North of Camino Del Norte	204,200	1.17	199,700	1.14

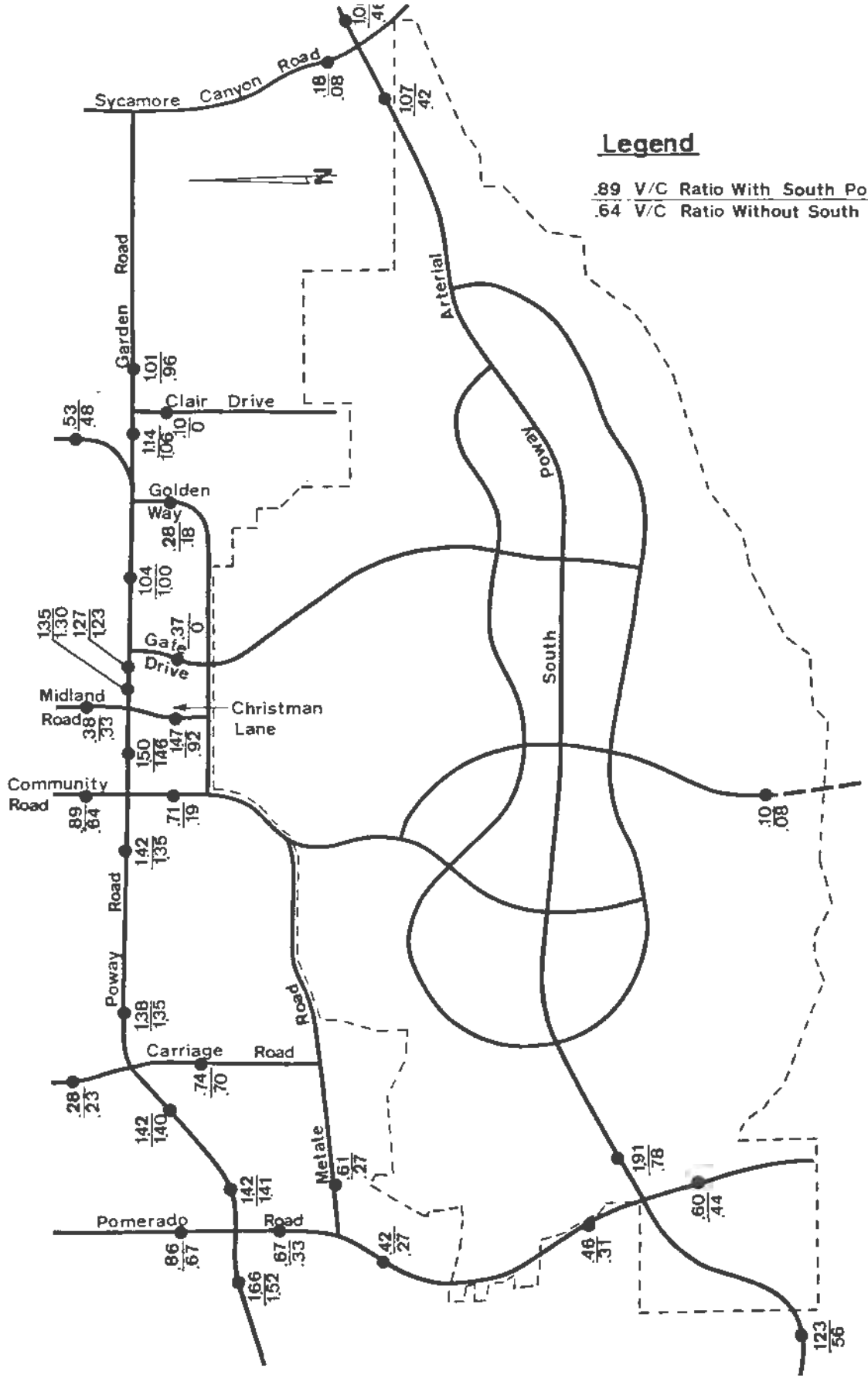


"No Build" Alternative Volume to Capacity Ratios
SOUTH POWAY PLANNED COMMUNITY

SOURCE: KUNZMAN AND ASSOCIATES

pbr

EXHIBIT 22

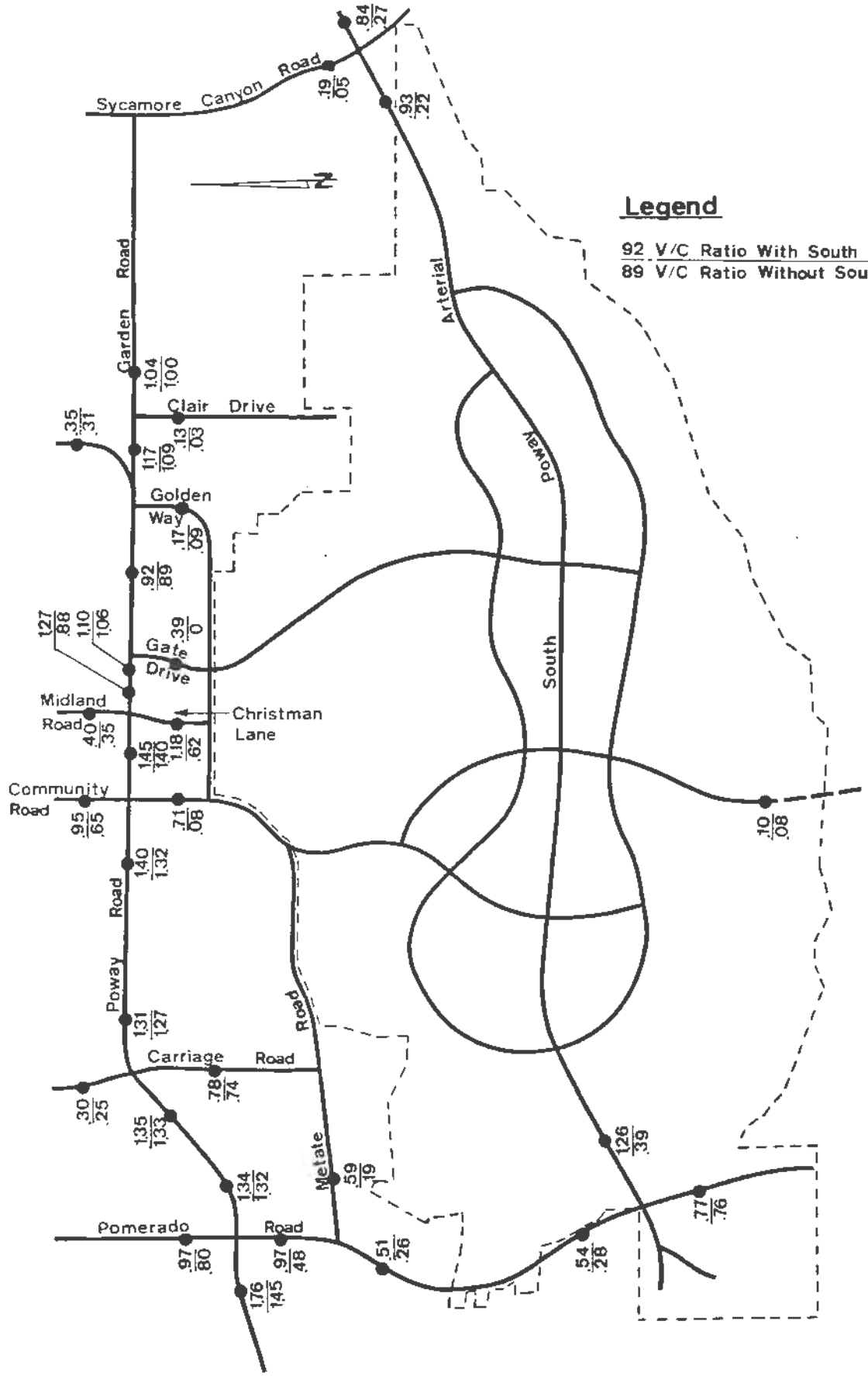


SOURCE: KUNZMAN AND ASSOCIATES

Alternative 8
Volume to Capacity Ratios
SOUTH POWAY PLANNED COMMUNITY

pbr

EXHIBIT 23

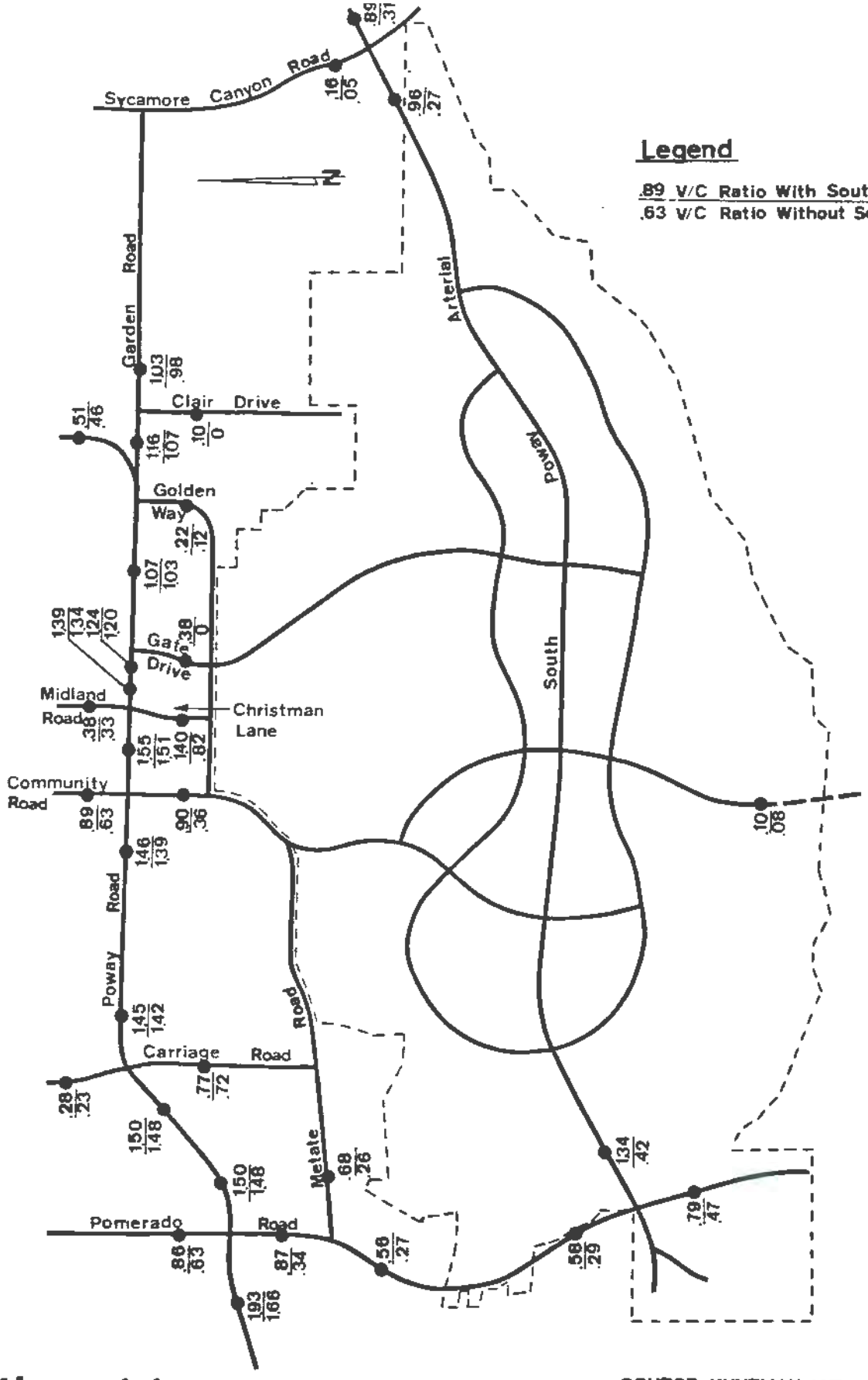


Alternative 10
Volume to Capacity Ratios
SOUTH POWAY PLANNED COMMUNITY

SOURCE: KUNZMAN AND ASSOCIATES

pbr

EXHIBIT 24



Alternative 11
Volume to Capacity Ratios
SOUTH POWAY PLANNED COMMUNITY

SOURCE: KUNZMAN AND ASSOCIATES

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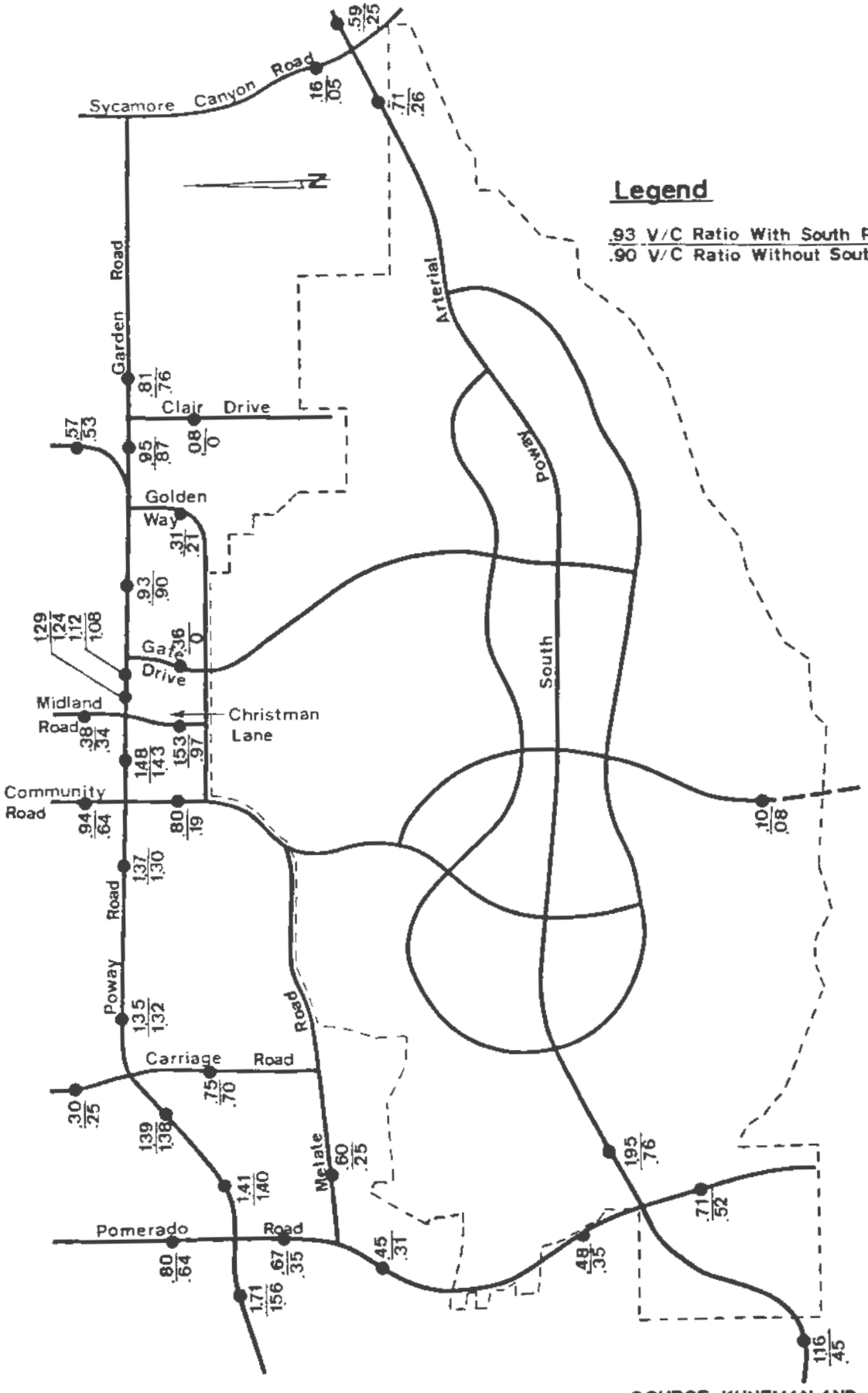
EXHIBIT 25



SOURCE: KUNZMAN AND ASSOCIATES

Alternative 12
Volume to Capacity Ratios
SOUTH POWAY PLANNED COMMUNITY

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EXHIBIT 26

arterial for all of the circulation system alternatives, both with or without South Poway Planned Community. However, the over capacity conditions are minimized with SANDAG Alternatives 8 and 12 because of the proposed connection of the South Poway Arterial to the Mercy Road interchange at Interstate 15. For example, total future volumes on Poway Road west of Pomerado Road range from 58,000 to 59,000 vehicles per day for the No-build Alternative and Alternative 11, down to 49,900 vehicles per day for Alternative 8.

3. Though not specifically evaluated in the Kunzman study, development of a secondary project access to Pomerado Road south of Metate Road could result in significant reductions in traffic volumes both on the South Poway Arterial between Pomerado Road and the Community Road extension, and on Pomerado Road itself along the segment between the proposed secondary access intersection and the South Poway Arterial.

4. With several roadways providing access from the project to Poway Road, Pomerado Road, and Sycamore Canyon Road, good emergency access is anticipated at buildout because there are two ways of reaching any point within the site.

5. A specific alignment for a potential South Poway Arterial extension through the unincorporated island and Miramar Ranch North has not been identified. An extension which would align with proposed Cypress Canyon Road prior to its intersection with Spring Canyon Road in Miramar Ranch North is considered most likely. Potentially significant landform alteration, visual and land use effects could occur with major arterial road development through these hillside areas.

6. Buildout of the project can be expected to generate demand for alternative transportation mode facilities and services. Bus turnouts, "park-and-ride" facilities, and shelters at transfer points may be required onsite.

Cumulative Impact. Based on total traffic volumes and share of total future volumes on existing and planned facilities (Tables 13-17), the project will have a significant cumulative impact on both the local and regional circulation network.

Alternatives Impacts: Alternative (3), the high intensity alternative, would significantly increase impacts to traffic and circulation relative to the proposed project. The additional 400+ residential units and 35 acres of industrial park/light industrial uses could be anticipated to generate 7,000 to 8,500 additional average daily trips, representing approximately a ten percent increase over proposed project levels.[1]

Alternative (1), the low intensity alternative would substantially reduce total traffic volumes with the inclusion of only residential land uses. In comparison to the proposed project, this alternative could generate approximately 6,500 average daily trips, representing a reduction of approximately 90 percent of the total daily trips attributed to the proposed project using SANDAG select zone data. Significantly, however, this alternative provides little trip attraction capability and does not contribute to balancing of traffic flows in and out of the Poway community.

4.9.3 Mitigation Measures

The following measures are recommended to mitigate the impacts of the project on traffic and circulation.

1. The basic community design of the South Poway Planned Community, including trip attracting industrial and commercial/office uses, will help to reduce the imbalance of peak hour flows currently occurring in and out of the Poway community.

2. Amend the existing city of Poway Circulation Element and other appropriate circulation elements to provide for the construction of the Alternative 8 circulation system as presented in the Route 125 North Location Analysis.

3. Poway Road should be classified as a primary arterial between Interstate 15 and Garden Road based upon the SANDAG forecasts. It should

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1 Data assumes 10 to 15 daily trips per dwelling unit for low-medium to rural residential uses, 1,250 daily trips per acre for neighborhood commercial and 100 daily trips per acre for the proposed industrial mix.

be noted, however, that adequate right-of-way for a primary arterial from the city of Poway's western boundary to Garden Road does not presently exist and its acquisition would require the condemnation of a large number of existing privately owned buildings and other structures. The South Poway Arterial should be classified as a major arterial between Mercy Road and Pomerado Road, and as a primary arterial between Pomerado Road and the extension of Community Road, and as a major arterial between Community Road and Sycamore Canyon Road. Based on project- level studies, the segment between Pomerado Road and Community Road could be reduced to a major arterial with development of a secondary access to Pomerado Road.

4. Regardless of the SANDAG Route 125 Alternative implemented, improvements to two critical intersections, Poway Road/Pomerado Road and Poway Road/Community Road, should occur relatively early in the development of the proposed project. At the Poway/Pomerado intersection, the situation could be improved by having dual left-turn lanes on all four approaches, instead of two approaches as now exists. Widening of Community (undergrounding the drainage channel) and the addition of dual left-turn lanes from westbound Poway Road onto Community Road would greatly improve the operation of this intersection.

5. Maintain a high level of service along arterials by restricting parking and controlling roadway access.

6. Construct all streets internal to the project to full ultimate cross-sections as adjacent development occurs.

7. Construct all streets bordering the project to ultimate half-section widths in conjunction with development.

8. Since this traffic study focuses on long-range (year 2005) traffic projections, more detailed traffic impacts such as local street locations and sizing, and roadway access provisions should be addressed at subsequent levels of planning.

9. Onsite circulation improvements shall be provided by the project in accordance with South Poway Planned Community Development Plan standards.

10. The project should contribute toward future offsite improvements in proportion with its anticipated use of impacted facilities. Percent-of-total traffic volume calculations (Appendix G, Tables 3 through 7) may be utilized as a basis for estimating contributions.

11. The project proponents should support and encourage alternative modes of transportation through provision of bike lanes and public transit access. Industrial uses should encourage ride-sharing.

12. The project proponents should dedicate existing and master planned trails onsite.

13. Employers should be encouraged to provide incentives for using alternative transportation modes and to provide "flextime" or nontraditional work scheduling in order to lighten peak hour traffic volumes.

4.10 AIR RESOURCES

4.10.1 Existing Conditions

The county of San Diego lies within the San Diego Air Basin (SDAB). Air quality within the SDAB is determined by both primary pollutants (eg., carbon monoxide, particulates and hydrocarbons) which are added daily to the air mass, and by secondary pollutants (eg., ozone, oxides of nitrogen and photochemical aerosols) already present in the air mass. Secondary pollutants (especially oxidants such as ozone) present the major air quality problem in the basin. The air quality of the project area is determined by the primary pollutants emitted locally, and the existing regional ambient air quality, combined with the specific meteorological factors which influence the site.

Climate and Meteorology

Climate combines with meteorologic and topographic conditions to affect local and regional air quality. A discussion of local topographic conditions is contained in Section 4.1 LANDFORM AND TOPOGRAPHY, while climatologic and meteorologic conditions endemic to the Poway area are described below.

Poway has the same cool, semiarid mediterranean climate found throughout southern California. This climate is characterized by hot, dry summers and mild, wet winters. Prevailing winds are westerly to northwesterly and occur during the daytime hours. These are usually mild winds of no more than ten knots in velocity. During the night and early morning hours, the winds reverse direction and blow easterly at a mild speed of less than five knots. Occasional hot, dry easterly winds (Santa Anas) usually occur in two- or three-day periods in the autumn months. Maximum rainfall occurs between December and March, averaging approximately eleven inches per year. Sunny days are the norm throughout the year. Average temperature in the area is 62°F.

The Poway area frequently experiences temperature inversions, which trap air and air pollutants in a limited atmospheric volume near the ground.

Temperature inversions are common in the coastal and foothill regions of San Diego County and the hill and canyon topography of the region accentuates these conditions.

Ambient Air Quality

Ambient air quality usually is described in terms of compliance with state and federal air quality standards. These standards have been set to protect public health with an added margin of safety. Table 18 presents current state and federal ambient air quality standards.

Ambient air quality data is monitored by the San Diego Air Pollution Control District (APCD) and the California Air Resources Board (ARB) at monitoring stations throughout the county. The monitoring station nearest to the South Poway project site is located in Escondido and provides air quality data which can be considered indicative of conditions in the station vicinity. Table 19 provides a summary of the air quality data recorded from 1981 to 1983 at the Escondido station. Countywide air quality is also shown for the same period (the countywide data is representative of basinwide conditions).

Although the standards for ozone and particulates have been exceeded on several occasions, generally, air quality in the project vicinity is considered good. Therefore, sensitive receptors such as schools, hospitals, convalescent homes and agricultural areas are not currently subject to significant air pollutant problems.

Air Quality Planning Programs

The federal Clean Air Act (1977) requires all states to meet federal clean air standards. States are required to submit implementation plans to the Environmental Protection Agency showing attainment of the clean air standards in areas where such standards are not being met. The San Diego Air Basin has been designated a "non-attainment area" because concentrations of several air pollutants periodically exceed air quality standards.SDAB was originally designated as a non-attainment area for ozone, carbon monoxide, particulate matter, nitrogen dioxide and lead. Over the past several

Table 18

AMBIENT AIR QUALITY STANDARDS [1]

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Oxidant[10]	1 hour	0.10 ppm (200 ug/m³)	Ultraviolet Photometry	—	—	—
Ozone	1 hour	—	—	0.12 ppm (235 ug/m³)	Same as Primary Standard	Ethylene Chemiluminescence
Carbon Monoxide	8 hour	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Spectroscopy (NDIR)	10 mg/m³ (9 ppm)	Same as Primary Standards	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m³)		40 mg/m³ (35 ppm)		
Nitrogen Dioxide	Annual Average	—	Gas Phase Chemiluminescence	100 ug/m³ (0.05 ppm)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 hour	0.25 ppm (470 ug/m³)		—		
Sulfur Dioxide	Annual Average	—	Ultraviolet Fluorescence	80 ug/m³ (0.03 ppm)	—	Pararosaniline
	24 hour	0.05 ppm (131 ug/m³)[9]		365 ug/m³ (0.14 ppm)	—	
	3 hour	—		—	1300 ug/m³ (0.5 ppm)	
	1 hour	0.5 ppm (1310 ug/m³)		—	—	
Suspended Particulate Matter	Annual Geometric Mean	60 ug/m³	High Volume Sampling	75 ug/m³	60 ug/m³	High Volume Sampling
	24 hour	100 ug/m³		260 ug/m³	150 ug/m³	
Sulfates	24 hour	25 ug/m³	Turbidimetric Barium Sulfate	—	—	—
Lead	30 day Average	1.5 ug/m³	Atomic Absorption	—	—	—
	Calendar Quarter	—	—	1.5 ug/m³	Same as Primary Standard	Atomic Absorption
Hydrogen Sulfide	1 hour	0.03 ppm (42 ug/m³)	Cadmium Hydroxide STRactan	—	—	—
Vinyl Chloride (Chloroethene)	24 hour	0.010 ppm (26 ug/m³)	Tedlar Bag Collection, Gas Chromatography	—	—	—
Visibility Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility[8] to less than 10 miles when the relative humidity is less than 70%		—	—	—
APPLICABLE ONLY IN THE LAKE TAHOE AIR BASIN:						
Carbon Monoxide	8 hour	6 ppm (7 mg/m³)	NDIR	—	—	—
Visibility Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility[8] to less than 30 miles when the relative humidity is less than 70%		—	—	—

1 Source: California Air Resources Board, California Air Quality Data, Volume XV,1983.

Table 19

AMBIENT AIR QUALITY SUMMARY[1]

Pollutant	Standard	Number of Days Exceeded Local[2]/County 1981	1982	1983
Ozone[5]	State	52/192	47/120	62/126
	Federal	13/78	14/47	20/65
	Max. Concentration	.19/.29	.22/.23	.20/.28
Carbon monoxide	State	N/A	0/0	0/0
	Federal	1/1	1/1	0/1
	Max. Concentration	15/15	15/15	14/16
Nitrogen dioxide	State	0/0	0/0	0/0
	Federal	N/A	N/A	N/A
	Max. Concentration	.17/.27	.18/.20	.17/.20
Sulfur dioxide	State	0/0	0/0	0/0
	Federal	N/A	N/A	N/A
	Max. Concentration	.05/.12	.04/.13	.03/.07
Suspended particulates[3]	State	23/48	4/17	7/10
	Federal	0/0	0/0	0/0
	Max. Concentration[4]	122/271	127/171	147/150

years, SDAB's air quality has improved to where only ozone and particulate concentrations still exceed federal standards. In 1976, the San Diego Air Pollution Control District (SDAPCD) in conjunction with the San Diego Association of Governments (SANDAG) prepared an air quality plan providing programs and plans for local governments in an effort to meet state and federal quality standards. November 1982 is the latest plan revision.

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1 Air Resources Board, California Air Quality Data, 1981-83, Vols. XIII-XV.

2 Data from Escondido Air Quality Monitoring Station.

3 Expressed as percentage of samples taken which exceeded the specified standard.

4 Particulates indicated in ug/m3. All other pollutants indicated in ppm.

5 1983 ozone data source: Telephone conversation with Clayton White, San Diego Air Pollution Control District, March 1985.

The 1982 State Implementation Plan (SIP) revision for the San Diego Air Basin provides a strategy to bring the basin into compliance with required standards. An integral part of the plan revision utilizes emission projections for the basin based upon the SANDAG Series V Regional Growth Forecasts for the county.[1] Table 20 presents the growth forecasts for Subregional Area 15, which includes Poway (see Exhibit 14, Statistical Areas).

Table 20
SANDAG SERIES V GROWTH FORECASTS
SUBREGIONAL AREA 15

	1985	1995	2000
Population	46,490	64,369	67,097
Housing Units	14,616	21,811	23,216
Gross Residential Density	3.3	2.3	2.2

4.10.2 Impacts

Ambient Air Quality

Implementation of the proposed project will result in both long-term and short-term air quality impacts from stationary as well as mobile sources. The project-related impacts include the following:

1. Implementation of the project will result in short-term exhaust emissions from the operation of construction equipment, and fugitive dust generated during construction activities. Generally, grading and construction activities will occur in the project area for brief periods during the entire approximately 20-year development period. This activity will be concentrated, probably within the master plan subareas, since development will most feasibly occur contiguously within these subareas. Detailed construction equipment emissions were not calculated due to the lack of specific construction information. Generally, emissions occur from heavy, diesel-powered machinery and also from

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1 Note that SANDAG Series V forecasts have been revised and the current Series VI data is applied for other purposes. Series V data is being utilized here in order to apply the 1982 SIP revision.

fugitive dust during grading. The nuisance from fugitive dust which is generated at an average rate of 1.2 tons per acre of construction per month, is considered the most significant short-term air quality impact.[1] The amount of dust emissions will vary day to day and is influenced by a number of factors (ie., weather, level of activity, etc.).

2. Long-term operation of the project will result in air pollutant emissions from both mobile and stationary sources. Mobile source emissions result from combustion of fossil fuels by project-generated traffic. Stationary sources of emissions result at power plant facilities from consumption of electricity and natural gas onsite. Emissions will occur onsite due to heat generation in individual buildings and residences, and perhaps from operations by industries.

   Although the project will generate mobile source emissions in the Poway area due to the traffic-generating nature of industrial land use, reciprocally, the project could reduce countywide emissions by reducing the number of daily commuters to San Diego employment centers. The following tables present anticipated emissions from various mobile and stationary sources at project buildout.

Table 21

ANTICIPATED STATIONARY SOURCE EMISSIONS

Pollutant	Emissions (tons/year)[2]
Carbon monoxide	4.0
Nitrogen oxides	23.7
Hydrocarbons	1.6

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1 U.S. EPA AP-42 emissions factor for fugitive dust.

2 Generation factors from Air Quality Handbook, South Coast Air Quality Management District, 1983. Assumptions are listed in Appendix H.

Table 22

ESTIMATED MOBILE SOURCE EMISSIONS

Pollutant	Emissions (tons/year)[1]
Carbon monoxide	2,444
Nitrogen oxides	196
Hydrocarbons	302

Table 23

TOTAL ESTIMATED PROJECT-GENERATED EMISSIONS[2]

Pollutant	Emissions (tons/year)
Carbon monoxide	2,448
Nitrogen oxides	220
Hydrocarbons	304

Air Quality Planning Programs

The South Poway Planned Community proposes, at buildout, a total of 272 dwelling units and a total population of 816. Although buildout is anticipated following year 2005, if the full development statistics are compared to projected growth forecasts for year 2000, the project contribution to Subregional Area 15's residential growth is minimal. Project buildout population and housing units comprise about one and one-half percent of the subregional area total.

Cumulative Impacts. The proposed project will contribute incrementally to air quality degradation in the SDAB. Although individually the project's impact to air quality is minimal, in conjunction with surrounding developments and the usage of automobiles as the primary means of transportation, the air pollutants contributed to the air basin will have significant impacts.

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1 Derived utilizing URBEMIS #1 Model, California Air Resources Board, 1983.

2 Refer to Appendix H for assumptions and calculations.

Project Alternatives. Alternative (3) impacts to air quality would be considerably greater than those of the proposed project due to the higher intensity use of the land. In relationship to the proposed project, Alternative (3) would produce more stationary source emissions due to the larger number of homes and industries, and greater quantities of mobile emissions due to the much greater traffic generation. Alternative (1) would not produce any industrial emissions, and residential emissions would approximate those of the proposed alternative.

4.10.3 Mitigation Measures

The following measures are proposed to mitigate the short-term and long-term air quality impacts associated with the proposed project.

1. The project shall comply fully with all rules and regulations of the San Diego Air Pollution Control District.

2. The impact of construction-generated dust particulates shall be reduced to the extent feasible by scheduling construction and grading periods around the dry summer months and by periodic sprinkling with water. Other fugitive dust control tactics outlined in the Region Air Quality strategy shall be applied.

3. San Diego County's vehicular emissions will be reduced through legislative exhaust emission controls, the provision of mass transit, and the development of closer employment centers, as well as implementation of the control measures delineated in the 1982 SIP revision for San Diego.

4. The Planned Community Development Plan shall incorporate energy conservation practices into the design of the project and its structures such that stationary source pollutants both on and offsite are limited.

5. Various design measures recommended by the California Air Resources Board (ARB) shall be incorporated into the master plan, including the following:

a. bicycle paths and on-street lanes
b. pedestrian and equestrian facilities
c. major open space and recreation facilities

6. Project and structural design should include, at a minimum, the following:

a. energy-efficient lighting
b. optimum insulation standards
c. solar access siting
d. solar space heating/hot water systems/pool heating
e. energy-efficient builtin appliances
f. support of ridesharing and public transit, including provision of bus turnouts

7. Pursuant to detailed project-level traffic studies, an analysis of local air quality at key roadway intersections shall be performed for existing and future (year 2005) conditions.

8. Onsite transit coordinators should be required by the city in order to develop and implement carpooling, vanpooling programs within the employment/commercial area of the South Poway Planned Community. Ten percent of the onsite employment area parking spaces should be preferential spaces designated for carpools/vanpools.

4.11 ACOUSTIC ENVIRONMENT

4.11.1 Existing Conditions

Acoustic environment is characterized by noise sources and noise receptors in an area. Within the Poway area, sensitive noise receptors are residential areas, schools, churches, hospitals, libraries, etc. Significant sources of noise in the city are primarily arterial roadways, although the area is subject to occasional aircraft overflights.

City Noise Policies

The city of Poway has established standards for acceptable noise levels: 60 decibel Community Noise Equivalency Level (dBA CNEL) is the maximum acceptable outdoor noise exposure for rural and single family residential areas. 65 dBA CNEL is established as the acceptable outdoor noise exposure for multifamily residential areas. 70 dBA CNEL is the acceptable outdoor noise exposure level for schools, libraries, churches, hospitals, nursing homes, parks, and recreation areas. In the event that acceptable outdoor noise levels cannot be reached by various noise attenuations, indoor noise levels shall not exceed 45 dBA CNEL.

Current City Noise Levels

Current noise levels adjacent to roadway links were determined in the city of Poway Comprehensive Plan (1983). The Highway Traffic Noise Prediction Model developed by the Federal Highway Administration was utilized in the determinations. Table 24 on the following page illustrates the calculated noise levels for roadway links in the proposed project site vicinity.

The most significant factor in determining highway noise levels tends to be related to traffic speeds rather than the number of vehicles per day.

Within the city, sensitive receptors are significantly impacted by noise. Several sensitive receptors are exposed to noise at the upper limit of the normally accepted category. Included areas are Garden Road Community

Table 24

CURRENT NOISE LEVELS ADJACENT TO MASTER PLANNED ROADWAY LINKS[1]

Roadway Link	50 CNEL[1]	Distance to 60 CNEL
Pomerado Road (south of Poway Road)	69 dBA	196 feet
Poway Road (west of Pomerado Road)	73-76 dBA	376 feet
Pomerado Road to Community Road	74 dBA	401 feet
Community Road to Garden Road	73 dBA	328 feet
Garden Road	66 dBA	133 feet
Metate Lane	62-65 dBA	74 feet

School, Garden Park, and Pomerado Elementary School. Several residential areas are currently exposed to unattenuated noise levels up to 70 dBA due to proximity to roadways. These areas are located along Poway Road, Espola Road, Midland Road, and Pomerado Road (from Poway Road to Stone Canyon). Some of these homes are noise attenuated by setbacks and noise barriers. Potentially sensitive receptors in the project vicinity include 1) isolated residences and other single-family dwellings adjacent to Pomerado Road south of Metate Lane, 2) mobile homes along Metate Lane, and 3) low density residential uses south of Poway Road in the vicinity of the proposed Midland Road extension.

Onsite Noise Levels

Within the property boundaries of the proposed South Poway Planned Community, rough topography plays an important role in intervention of noise. Distance, high ridgelines and vegetation between roadways and the central portion of the site serve to diminish existing noise from roadways. Existing residences located along Pomerado Road are not within the 60 dBA CNEL and thus are not impacted by roadway noise.

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1 Based on city of Poway Comprehensive Plan (1983).

Noise generated within the site boundaries occurs primarily at the Padre Transit mining operation. Noise is generated by the mining of aggregate from the land as well as by heavy trucks used in the pickup and transport of aggregate from the site. Frequent heavy truck haul trips from the operation are a current source of noise along Beeler Canyon Road-Pomerado Road. Other noise sources are occasional off-road recreational vehicles and occasional aircraft.

Although the proposed project site is located within the box pattern for aircraft takeoffs and landings at Naval Air Station (NAS), Miramar, the site is not within the direct area of influence of NAS Miramar. The site is outside the 60 dBA CNEL noise contours created by the naval aircraft. It should be noted, however, that CNELs over the entire site are elevated to some extent by NAS Miramar aircraft flight patterns.[1]

4.11.2 Impacts

Project-generated noise is anticipated from both short-term and long-term sources. In turn, implementation of the proposed project will allow development of sensitive noise receptors in rural and low density residential zones within the site boundaries.

Short-term sources of noise are primarily related to grading and construction activities which occur near sensitive receptors. Significant construction and grading noise will be largely contained within the central core, largely isolated from offsite receptors by topography and distances.

Grading and construction noise will be generated in phase with subarea dual roadway development over a 15- to 20-year period. Such activities will be carried out only during daytime hours. Noise levels from heavy construction equipment are estimated to range from 75 dBA to 100 dBA at 50 feet.[2]

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1 Correspondence from Roy Johnson, NAS Miramar, June 1984.
2 The Impact of Noise Pollution, Bugliarello et al., 1976:227.

Potential long-term stationary noise sources are related to industrial processes and machinery. These sources are not considered significant based upon proposed restrictions to light industrial uses onsite.

The heavy trucks and equipment currently utilized in the Padre Transit mining operation will continue; expanded mining operations associated with project development represents a significant potential noise impact along Beeler Canyon Road-Pomerado Road. However, routing of sand and gravel operation traffic to a new Beeler Road with access off Sycamore Canyon Road or the South Poway Arterial could reduce or eliminate noise effects on existing Beeler Canyon Road and Pomerado Road.

Future Noise Levels

The primary noise sources on the South Poway Planned Community site and in the vicinity are anticipated to occur due to traffic several years in the future. Future traffic, whether or not the proposed project is developed, is anticipated to raise noise levels in proximity to arterials.

A noise analysis prepared by PRC Engineering, Inc. for the South Poway Planned Community, utilized projections by Kunzman Associates to estimate future traffic noise levels in and around the project area with the South Poway development (see TRAFFIC AND CIRCULATION, Section 4.9). In order to present a worst case analysis, the noise study utilized the highest of the five alternative traffic volumes along each of the analyzed links. Additionally, the analysis assumed that six percent of the traffic consisted of trucks which are higher noise level generators. The analysis assumed that roadways were level with the adjacent properties so that topographic noise attenuation was not considered.

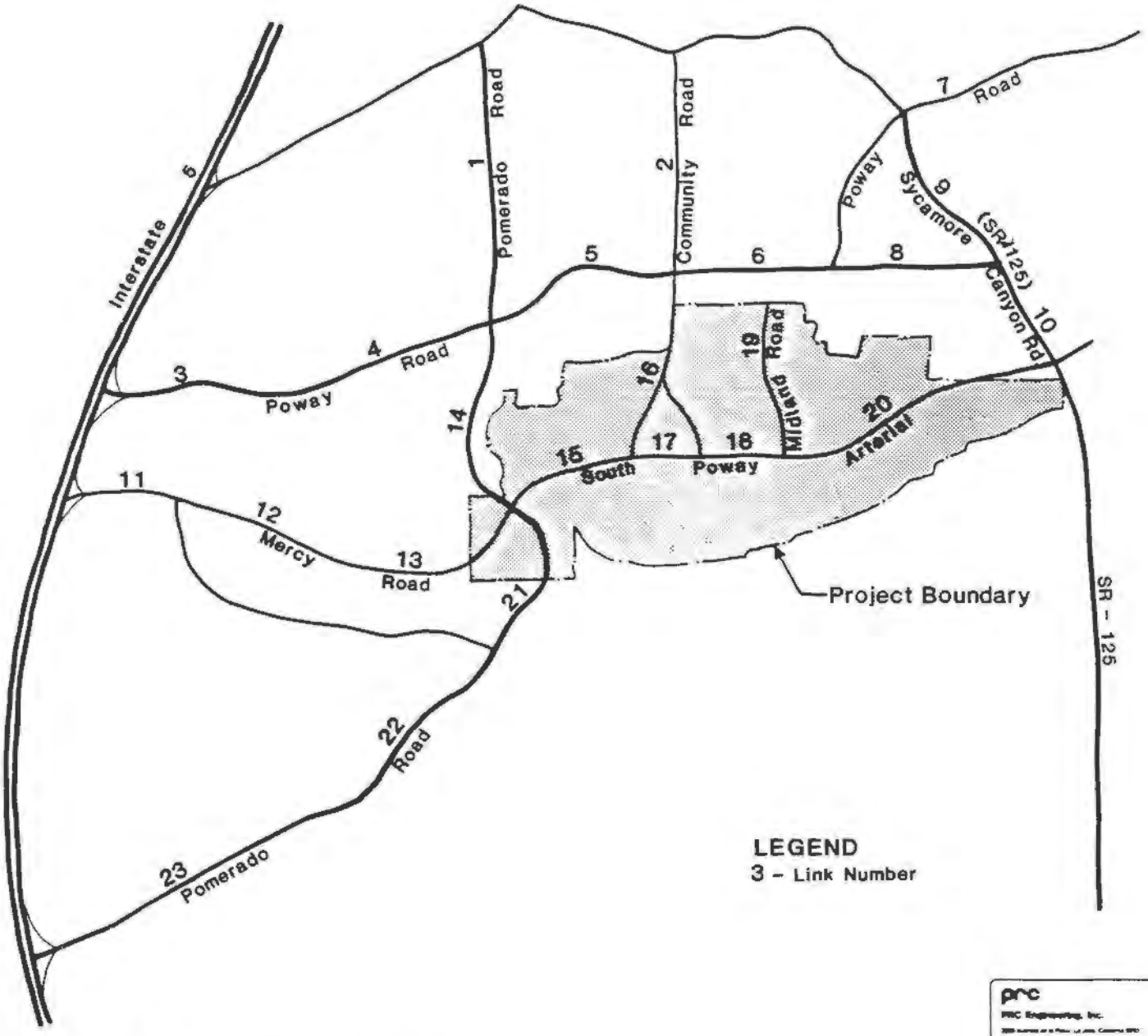
Exhibit 27 illustrates the numbers assigned to each analyzed roadway link. Table 25 presents the worst case noise levels calculated along each of these links. Since the number of lanes and the speed limit were assumed, and because these assumed variables can alter the noise contour interval by more than 100 feet, these assumptions are included in the table.

Table 25

ROADWAY NOISE LEVELS

Link Number	High Alternative Analyzed	AOT	% of ADTs Generated by S. Poway	Number of Lanes	Speed (mph)	Distances to CNEL Contour Intervals (feet)**			
						60	65	70	75
1	Alt. 14	30,000	31	4	45	352	163	76	35
2	Alt. 10	30,000	32	4	45	352	163	76	35
3	Alt. 14	70,000	7	6	55	702	326	150	70
4	Alts.11&14	60,000	13	6	55	631	293	136	63
5	Alts.11&14	45,000	1-6	4	45	461	214	99	46
6	All Alts.	40,000	3-6	4	45	426	198	92	43
7	Alts. 8, 10 11 & 12	20,000	10	4	55	376	175	81	38
8	Alts. 8, 10 11 & 12	15,000	4-8	4	45	222	103	48	20
9	Alt. 10	45,000	---	4	55	646	300	139	65
10	Alt. 10	55,000	---	4	55	739	343	159	75
11	Alts. 8&12	50,000	18-10	6	55	559	259	120	56
12	Alts. 8&12	20,000	---	4	55	376	175	81	38
13	Alts. 8&12	25,000	54-61	4	55	437	203	94	44
14	All Alts.	25,000	31-61	4	55	437	203	94	44
15	Alts. 8&12	35,000	59-61	4	55	546	254	118	55
16*	--	15,000	---	4	45	222	103	48	20
17	Alts. 8,11 12 & 14	20,000	61	4	55	376	175	81	38
18	Alt. 8	25,000	55	4	55	437	203	94	44
19*	--	6,000	---	2	45	134	62	29	13
20	Alt. 8	25,000	55	4	55	437	203	94	44
21	All Alts.	25,000	2-42	4	55	437	203	94	44
22	All Alts.	25,000	2-42	4	55	437	203	94	44
23	Alt. 12	40,000	10	4	55	597	277	129	60

* Estimated ADT volumes not derived from the SANDAG study.
** Measured from the center of the outside lane.



Noise Analysis Area and Link Numbers
SOUTH POWAY PLANNED COMMUNITY

EXHIBIT 27

In addition to noise generated along major arterials, the utilization of minor local streets will generate some noise onsite. Noise levels which are typical of various roadway types operating at capacity and at Level of Service C are summarized in Table 26.

Table 26

NOISE LEVELS ADJACENT TO ARTERIALS OPERATING AT CAPACITY[1]

Roadway Type	Daily Capacity[2]	Distance to CNEL Contours (Feet)[3] 60 dBA	65 dBA	70 dBA
Collector	10,000	118	55	26
Secondary	20,000	188	88	44

Note also that community equivalency noise levels within the site will continue to be influenced by aircraft overflights. Since the site is outside the air station's 60 dBA noise contour, these impacts are not considered significant.

Onsite

Land uses proposed for the project site will vary considerably in sensitivity to noise. Very sensitive noise receptors proposed include single-family residences and mobile home parks and may include passive parks and recreation areas. Relatively insensitive receptors include commercial and office uses. Insensitive receptors include industrial and warehousing land uses and parking lots. In general, the less sensitive uses are planned along the major roadways and the more sensitive uses are planned near minor roadways.

Cumulative Impacts. Project-generated vehicular traffic will have a potential for significant cumulative acoustic impacts in conjunction with areawide traffic on roadway links approaching or operating at capacity.

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1 Based on city of Poway Comprehensive Plan, 1983.
2 Level of Service C.
3 Distance measured from roadway centerline.

Alternatives. Roadway noise impacts from Alternative (3) could be significantly greater than those of the proposed project as a result of a projected total trip generation increase of approximately 5-10 percent from increased residential and industrial development. Short-term noise impacts of construction would occur with increased grading requirements in SF-2 and SF-7 areas. Alternative (1) would significantly reduce roadway noise impacts on key project access roads (ie., Pomerado, Community, Midland extension) relative to that of the proposed project. This low intensity alternative would require minimal grading and construction for building pads.

4.11.3 Mitigation Measures

The following measures are proposed to mitigate the short-term and long-term noise impacts associated with implementation of the project.

1. The project shall comply with the city noise ordinance.

2. Construction activities shall be limited to the hours of 7 a.m.-7 p.m., Monday through Friday, and 8 a.m.-5 p.m. on Saturday. In addition, all construction equipment should be equipped with effective muffling devices and shall utilize designated routes of ingress and egress to the project site.

3. Setbacks and clustering, acoustic architectural design, acoustic construction, and noise barriers can be used to reduce outdoor noise levels in residential areas onsite and offsite. Recommended noise barrier heights range from about four to six feet, depending on the roadway. Barriers can be a berm, wall, or a combination berm and wall. These methods shall be specifically identified in subsequent site specific plans.

4. Buffer areas, noise barriers, building attenuations or a combination shall be utilized such that residential/industrial land use interfaces are not subject to noise level incompatibilities.

5. Industries shall provide noise attenuation devices for equipment or machinery producing excessive noise levels.

6. Residential structures shall be attenuated such that indoor noise levels do not exceed 45 dBA with the windows closed in any habitable room.

7. Upon filing an application for building permits, an accredited expert or authority in the field of acoustics shall submit evidence in accordance with the following procedures which certifies that local noise standards will be satisfied:

    a. An acoustical analysis report describing in detail the exterior noise environment and the acoustical design features required to achieve the interior noise standard shall be submitted to the Director of Planning Services for approval.

    b. Prior to issuance of building permits, satisfactory evidence shall be submitted to the Director of Planning Services, which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

4.12 PUBLIC SERVICES AND UTILITIES

All of the agencies which provide public services and utilities to the proposed project area were contacted concerning their ability to serve the area. Each service is addressed below. Exhibit 28 illustrates the location of public facilities.

4.12.1 Fire Protection[1]

Existing Conditions

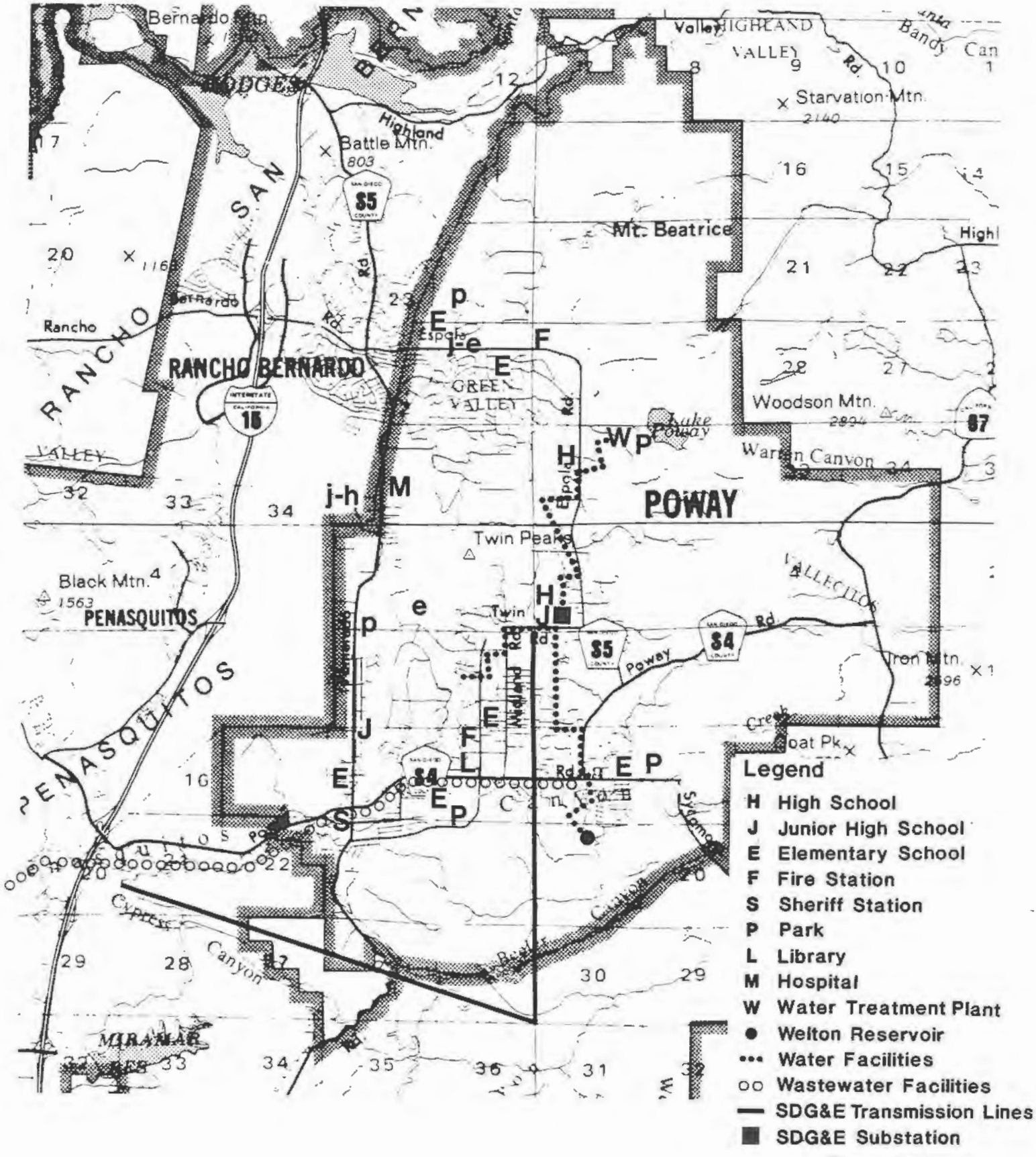
The proposed project is an area subject to brush fires or wildland fires due to the dry, fairly dense vegetation that covers the land during the months of summer and early fall. The central area is not currently served by roads and available access to the site is generally by country back roads or in cases of severe emergency, by helicopter.

The project site lies within the service area of the City of Poway Fire Department. There is an Automatic Aid agreement with the City of San Diego Fire Department such that in the event of a large fire on the proposed project property, San Diego would provide additional support from the Scripps Ranch Station. The Fire Department relies on the Department of Public Services for adequate water pressure to combat fires.

Facilities. There are two fire stations currently serving the proposed project area. Response times below are estimated for the western, eastern, and southern portions of the site with current access. The standard response time for effective service is five minutes.

Station	Response Time
Station 1 13050 Community Road	4-5 minutes
Station 2 16912 Old Coach Road	9-10 minutes

1 Based on Police and Fire Services, Buehler Planning Area, prepared by PRC Engineering, Inc., August 1984.



Public Facilities
SOUTH POWAY PLANNED COMMUNITY

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EXHIBIT 28

Two additional fire stations are planned but no land has yet been purchased for their location. One site is planned for western Poway at Camino del Norte Road by about 1988. A second station will probably be built near the Highway 67 corridor, however, no plans have been confirmed.[1]

Personnel. Together the fire stations have 30 full-time paid personnel including three chief officers, one fire inspector, and one secretary. There are 29 volunteer fire-fighters. At each shift, there is a six-person team at Station 1 and a three-person team at Station 2. The main fire station at Community Road has one paramedic unit with two personnel.

Equipment. There are two 750 GPM Class A reserve pumpers, two 1,500 GPM Class A pumpers, two brushfire fighting rigs, one reserve brushfire fighting rig, one water tanker, one paramedic ambulance, one reserve paramedic ambulance, one rescue rig, and four staff vehicles. All equipment cannot be operated with the personnel on hand at each shift.

Service Level. The level of fire protection service is evaluated by two criteria: the ability of the department to respond to a call within six minutes and by the Insurance Service Organization (ISO) ratings. If the six-minute response time is achieved, the current service level to that area meets the first criterion. The Poway Fire Department currently achieves an ISO rating of 4 and has set a goal of attaining a better ISO rating of 3. (The ISO rating is a complex evaluation of facilities, equipment, service, need, etc. in an area.)

Impacts

Project Impacts. Impacts associated with the proposed project are as follows:

1. Development in this area will increase personal and property damage hazard from brush fires especially where there is residential use and interface with open space.

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1 Telephone conversation with Bill Toon, Safety Services Oepartment, City of Poway, October 1984.

2. The proposed project would require some additional personnel and equipment in order to maintain the current service level. One truck company may be required.

3. The proposed development may ultimately create a need for a new fire station in the area.

4. New roadways proposed by the project would benefit access to the site by fire-fighting equipment.

Cumulative Impacts. Growth and development in the city of Poway can be expected to increase demand for fire protection personnel, equipment and facilities. Occasion for aid needed from the San Diego Fire Department can be expected to increase insignificantly.

Project Alternatives. Any additional development would increase hazard from local fires and all alternatives provide the benefit of road improvements. The high intensity Alternative (3) could require additional personnel and equipment while Alternative (1) would reduce fire protection requirements in comparison to the proposed project.

Mitigation Measures

Mitigation measures shall at least include the following:

1. Dedication of approximately two acres to the Safety Services Department for construction of a new fire protection facility (Safety Services recommends dedication of an area in the eastern portion of the site);

2. Continuation of the Automatic Aid agreement with the city of San Diego until all portions of the site can be adequately served by the city of Poway;

3. All-weather access provided to all development areas, including rural residential sites;

4. The PC Development Plan shall establish fuel modification guidelines, including use of buffer zones of fire-retardant vegetation between development areas and open space, and use of fire-retardant landscaping materials;

5. Fire-retardant building materials, including roofing and non-combustible siding, adequate sprinkler systems within buildings, and removal of brush around structures;

6. Development of a Hazardous Materials response plan and provision of any necessary equipment by the project proponent in order to protect the community from any hazardous materials which may be utilized in the industrial processes proposed for the site;

7. Adherence to City Uniform Fire Codes and Building Codes.

4.12.2 Police Service[1]

Existing Conditions

Poway contracts annually with the county of San Diego Sheriff's Department for police protection. The proposed project site is currently serviced from a sheriff's station located at 12935 Pomerado Road near the intersection of Poway Road. No sheriff's units patrol the site because there are no paved roads constructed within it and only isolated residences exist along perimeter roadways. Police service facilities at the station are as follows:

Personnel - Serving the area are 15 patrol deputies, seven traffic deputies, five sergeants, one lieutenant, one captain, five clerical personnel, one juvenile division officer, and two crime specialists.

Equipment - There are eight patrol cars, four traffic cars, two motorcycles, six unmarked cars, and two four-wheel-drive vehicles.

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1 Based on Police and Fire Services, Buehler Planning Area, prepared by PRC Engineering, Inc., August 1984 and contained in Appendix J.

Average response time into the project area is estimated at 30 minutes due to lack of access. Average response times for areas surrounding the proposed project area are six minutes for priority calls and 13.6 minutes for non-priority calls.

Currently, a city security ordinance is being considered by the Poway Planning Services Department.

Impacts

Impacts to available police services from the proposed development are as follows:

Project Impacts. The proposed project would result in an increase in calls for police services due to increased traffic on developed roadways as well as residential, commercial and industrial development.

1. Two eight-hour traffic units with relief would be needed for each 24-hour period. A "unit" includes vehicles, equipment, and staff.

2. One 24-hour patrol unit, seven days per week (with relief) would be required.

Cumulative Impacts. Cumulative impacts of local development will increase requirements for vehicles, equipment, and staff from the county in order to provide an adequate level of protection. Ultimately, increased demands may require formation of a city of Poway police department in order that the community be adequately served.

Project Alternatives. The high concept Alternative (3) would require additional services similar to those required by the proposed project. Alternative (1) would only require the two traffic units and no patrol units.

Mitigation Measures

The following recommendations would minimize impacts to police service:

1. Adoption of the proposed city of Poway Security Ordinance;

2. Installation of security alarm systems on all commercial buildings;

3. Use of security lighting on all parking lots, pathways and trails through commercial/industrial areas;

4. Provision of clearly marked street names and numbers to enhance police identification;

5. Siting of landscaping, parking lots, and walkways to maximize pedestrian and auto safety;

6. Organization of Neighborhood Watch Programs in residential areas and crime prevention programs in industrial and commercial areas.

4.12.3 Public Utilities

Existing Conditions

ELECTRICITY AND NATURAL GAS[1]

Natural gas and electricity are currently supplied to the area by San Diego Gas and Electric. One 230 kV and one 69 kV electrical transmission facility traverse the site within rights-of-way 200 feet and 12 feet wide, respectively. The nearest substation serving the area is located on Twin Peaks Road at Budwin Lane. Natural gas lines currently serve residences adjacent to the proposed project site. The location of transmission lines which would service the site can be determined at the tentative map planning stage.

TELEPHONE[2]

Telephone service is provided to the area by Pacific Telephone Company. The nearest transmission facility appears to be located at Community Road and the switching office is located at 14010 Midland Road.

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1 Correspondence with San Diego Gas and Electric Co., John Dawsey, Donna McGuire, and telephone conversation with Jay Sheppard, October-November 1984.

2 Correspondence with Rick Hill, November 1984.

CABLE TELEVISION[1]

Cable television service presently is not available on the project site, however, there are existing facilities adjacent to the site. These facilities, provided by Cox Cable San Diego, are in a position to service the project site area. See Appendix B for a specific list of the basic and premium channels available.

Impacts

Development of the proposed project will place significant additional demands for electricity, natural gas, and telephone service upon these utilities.

ELECTRICITY AND NATURAL GAS

Prior to buildout, a new electrical substation may be required in the project site vicinity as well as transmission lines for electricity and natural gas. The following tabulates the amount of energy expected to be utilized at the property upon buildout of the development.

Table 27

ESTIMATED ANNUAL ENERGY CONSUMPTION BY PROPOSED PROJECT

Land Use	Electricity (Mwh/yr)	Natural Gas (Mcf/yr)
Residential	1.6	21.8
Commercial	4.9	13.1
Industrial	57.4	366.6
TOTAL	63.9 Mwh/yr	401.5 Mcf/yr

TELEPHONE

Some easements may be required for locating small housings of telephone equipment on the site. Phasing of the development is anticipated to allow Pacific Telephone to assemble and install the necessary equipment. Some line extension charges may be applicable.

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1 Correspondence with Bruce W. Winter, Planning and Development Supervisor (September 1984), Cox Cable, San Diego.

CABLE TELEVISION

Development of the proposed project also will result in an increased demand for cable television and will require the extension of a conduit system and one television outlet in each dwelling which wishes to obtain this service.

Mitigation Measures

1. Development of the proposed project should comply with the energy-saving residential building standards outlined in Title 24 of the California Administrative Code.
2. Electricity, natural gas, and telephone extensions and distribution systems should be provided in coordination with phasing of development.
3. Energy-efficient structures should be constructed utilizing both building design and siting, and landscaping design such as:
   a. taking advantage of heating/cooling by sun/wind exposure;
   b. utilizing energy-efficient lighting systems;
   c. incorporating solar water heating systems as feasible or constructing buildings to allow easy installation of such systems later.
4. Project architects and planners should comply with SDG&E recommendations for applying energy conservation techniques.
5. Full advantage should be taken of opportunities to utilize cogeneration or heat exchange systems within industrial and commercial land uses.

4.12.4 Solid Waste

Existing Conditions[1]

Currently the site produces minimal amounts of solid waste due to its largely undeveloped status. The area south of Poway Road in the city of

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1 Telephone conversation with Dave Grossman, Engineer, West Miramar Solid Waste Disposal Facility, October 1984.

Poway is within the service area of West Miramar Solid Waste Disposal facility. This facility is operated by the city of San Diego and is located south of Miramar Naval Air Station at 5180 Mercury Street, San Diego. Mainly two rubbish collecting companies provide service to the proposed project vicinity: Sani-tainer and Mashburn Sanitation companies.

The West Miramar Solid Waste Disposal facility opened in July 1983 with an estimated life expectancy of ± 15 years. Capacity of the landfill is approximately 35,500,000 tons of solid waste; total tonnage to date (October 1984) is about 1,500,000 tons which leaves a remaining 34,000,000-ton capacity. (Estimated tonnage of solid waste generated per person per year is approximately one ton.)

The West Miramar landfill is a Class II-2 disposal facility which accepts household refuse, decomposable trash, and construction and demolition materials. No hazardous wastes are accepted. The hazardous waste disposal facility in nearest proximity to the proposed project site is located in Santa Barbara County.

Impacts

Impacts due to the disposal of solid waste from the proposed project site include the following:

Project Impacts. The proposed project would generate significant volumes of solid waste which would require disposal in local landfills. Complete buildout of the project is not anticipated for 15-20 years, therefore maximum impact potential would not be reached until after the projected closure of the West Miramar landfill. It should be noted that San Diego Energy Resources is proposing an incineration project at the West Miramar facility. Implementation of this project would extend the West Miramar life expectancy. Other area landfills which are near enough to receive project-generated solid waste are the Ramona landfill, northeast of Poway in San Diego County, and the San Clemente Canyon landfill which is being considered in Santee.

Industrial land uses proposed by the project are anticipated to generate hazarouds wastes in quantity and quality commensurate with the type of industry. The nearest hazardous waste facility is located in Santa Barbara County.

Table 28 on the following page illustrates "worst case" solid waste generation at buildout (Alternatives (1) and (3) are included here for easy reference).

Cumulative Impacts. Residential development in the area can be expected to generate solid waste at an approximate rate of one ton per person each year. These wastes as well as commercial and industry-generated wastes must be collected and removed to area landfills such as West Miramar and Ramona. Additional wastes not accounted for in growth projections used in design of the landfills can shorten the life expectancies of these facilities with current operation methods.

Project Alternatives. Impacts associated with Alternative (3) would be comparable to those of the proposed alternative. Alternative (1) would generate only residential waste. Refer to Table 28 for solid waste generation.

Mitigation Measures

Mitigation measures to alleviate solid waste generated by the proposed project should include encouragement of recycling in residential, commercial and industrial uses. Separation of recyclable materials at the site or in the landfill processes could extend the life of the landfill as well as conserve resources. Implementation of the proposed San Diego Energy Resources incinerator at the West Miramar facility would also extend the life expectancy of the landfill.

Table 28

SOLID WASTE GENERATION

Land Use	Generation Factor	Proposed Population Employees	Proposed Tons/ Year	Alternative (3) Population Employees	Alternative (3) Tons/ Year	Alternative (1) Population Employees	Alternative (1) Tons/ Year
Residential	1 ton/person/ year	816	816	2,220	2,220	774	774
Commercial/ Office	3.8 tons/employee year	900	3,420	1,215	4,617	0	0
Industrial	7.6 tons/employee/ year	12,300	93,480	12,900	98,040	0	0
TOTAL			97,716		104,877		774

4.12.5 Parks and Recreation

Existing Conditions[1]

The city of Poway has 457 acres of dedicated parkland; 21 of the acres are developed. The majority of this land is in the Lake Poway/Clyde E. Rexrode Wilderness Area. This is a regional park which includes fishing, boating, playgrounds, picnic areas and trails. Included in the Poway Community Park and Center are baseball fields, playgrounds, a community center, an auditorium, and the Weingart Senior Citizens Center. There are also playground areas and ballfields in Garden Road Park which is just north of the proposed project site. Two additional parks in close proximity to the site are Poway Community Park, located just north of Metate Lane and the Ponds Park, which is west of Pomerado Road. In addition to public parkland, there are about 242 acres of private recreational areas. Poway Unified School District is another large provider of parkland since the facilities are free for public use in the evenings and on weekends. Table 29 indicates the names and sizes of parks serving Poway.

Table 29

PUBLIC RECREATIONAL FACILITIES

Lake Poway/Rexrode Wilderness Area	380 acres
Los Arbolitos Park	38 acres
Community Park	28 acres
Garden Road Park	5 acres
Panorama Hills Park	5 acres
The Ponds Park	1 acre
TOTAL	457 acres

The city of Poway park and recreation goals include the following standards for recreation areas:

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1 Based on Poway Comprehensive Plan, 1983.

Table 30

CITY PARK STANDARDS

Type	Acres per 1,000 Pop.	Size of Site	Radius of Area Served
Playgrounds	1.5	2	.5 mile
Neighborhood parks	2.0	15	.5 mile
Playfields	1.5	10	1.5 miles
Community parks	3.5	40	2.0 miles
District parks	2.0	100	3.0 miles

Impacts

Project Impacts. The addition of 816 new residents[1] into the proposed South Poway Planned Community would require new parks. Based on the assumption that parks and recreation standards are presently met in Poway, these new residents would require 8.6 acres of additional parklands to maintain these goals.

Cumulative Impacts. Local developments will put increasing pressure on Poway to meet the established goals but impacts are not considered significant.

Project Alternatives The low intensity Alternative (1) would require an addition of 8.1 acres of parklands and the high intensity Alternative (3) would require 23.3 acres based on the above assumptions.

Mitigation Measures

1. Approximately 8.6 acres of the project site should be conserved as open space for natural areas and trails with associated recreational uses or designated specifically for parklands and/or the project proponent should pay fees in lieu of parkland dedication.

2. Private recreational facilities should be encouraged.

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1 Based on 3.0 residents generated per household.

4.12.6 Schools

Existing Conditions

The proposed project site is located within Poway Unified School District (PUSD). The PUSD encompasses Rancho Bernardo and Rancho Penasquitos in the city of San Diego as well as the city of Poway. Most of the schools within the district are near or over capacity. Currently planned are one elementary school by 1986, one or two elementary schools within five to ten years, and a high school and middle school within ten years.[1] PUSD implements a developer's fee to offset costs of providing educational facilities for new project-generated students.

Impacts

Using PUSD generation factors, impacts to schools in the district were estimated. These students would attend Valley Elementary School, Meadowbrook or Twin Peaks Middle Schools, and Poway High School.

Project Impacts. The proposed project would increase demand for educational staff and perhaps require new facilities. The proposed residential uses are expected to generate 150 students overall. Table 31 shows anticipated student numbers by grade level for the proposed project plus Alternatives (1) and (3).

Table 31
STUDENT GENERATION

School Level	Generation Factor[2]		Students Generated		
	Single Family[3]	Mobile Home	Proposed	Alt(1)	Alt(3)
All (K-12)	.63	.19	150	163	444
Elementary	.27	.07	64	70	190
Middle	.13	.05	31	34	92
High	.23	.07	55	59	162

1 Telephone conversation with Stephanie Austin, Poway Unified School District, October 1984.
2 From PUSD data, May 1984.
3 Two+ bedrooms, detached.

Cumulative Impacts. By the year 2000, roughly 40,000-60,000 new dwelling units are estimated to be built within PUSD. This would give rise to many students that must be accommodated by the school district.

Project Alternatives. Alternative (1) would generate 163 students overall. Alternative (3) would add 444 students. Refer to Table 31.

Mitigation Measures

1. Poway Unified School District should continue to require developer's fees to alleviate increasing needs for educational facilities.

4.12.7 Library

Existing Conditions[1]

The county of San Diego Library System operates the Poway branch library. This branch is located in Lively Center on Poway Road. There are currently no plans for building new facilities; however, there is a planned site for another branch in Poway in the Civic Center area.

The Poway branch library has approximately 38,500 volumes of which about 36,000 are circulation volumes. The library occupies approximately 5,000 square feet and provides nearly 40 seats.

Impacts

Project Impacts. The proposed project would generate about 816 new residents. No significant direct impacts are anticipated.

Cumulative Impacts. Effects associated with developments in the Poway area could require additional library facilities in the future, however impacts are not considered significant.

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1 Telephone conversation with Ernstlee Henshaw, Poway Branch Library, October 1984.

Project Alternatives. With 774 and 2,220 new residents generated by Alternatives (1) and (3), respectively, no direct significant impacts are expected.

Mitigation Measures

No mitigations are recommended.

4.12.8 Hospitals

Existing Conditions[1]

There are two hospitals within about a ten-mile radius of the proposed project site. Palomar Hospital is located at the perimeter of this radius in Escondido. Pomerado Hospital is located about five minutes from the northwestern border of the site and will be the focus of this analysis.

Pomerado Hospital serves Poway with 130 beds and generally operates at below 50 percent capacity. It is an acute care facility which offers a wide range of care services excepting psychiatric and pediatric care.

Impacts

No direct impacts of significance are anticipated from the proposed project alternative or Alternatives (1) or (3). Cumulative effects are not considered significant.

Mitigation Measures

No mitigation measures are proposed.

4.12.9 Wastewater

Information contained in this section in regard to existing and required facilities was provided by W.W. Fannon in the 1984 report Water and

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1 Telephone conversation with Shirley Watts, Pomerado Hospital Administration, October 1984.

Sewerage Facilities for Buehler Planning Area. The intent of this report is to demonstrate the manner in which water and sewerage facilities can be provided to the proposed project property. This report is contained in its entirety in Appendix K.

The development of the proposed project is controlled by the City of Poway, and it is assumed the provision of wastewater service facilities will be extensions of the existing system and planned, designed, and operated by the city.

Existing Conditions

TREATMENT FACILITIES

Prior to the incorporation of the city of Poway in 1980, wastewater service was provided by the Pomerado County Water District. This district was absorbed by the city government upon incorporation.

Originally, lines were constructed from Poway westerly to the Pomerado Sewage Treatment Plant with a 1.0 mgd capacity. Effluent was discharged into Poway Creek. When new RWQCB regulations required economically infeasible tertiary treatment, this plant was closed and removed after capacity rights were purchased from the San Diego Metropolitan Sewerage System. Flow from Poway into the Metro System is treated at the Point Loma Treatment Plant. Poway currently purchases capacity rights for 4.0 million gallons per day (mgd). Negotiations are underway for purchase of an additional 1.0 mgd for a total of 5.0 mgd.

The Point Loma Treatment Plan was originally designed for primary treatment, however, a 1972 EPA law mandated up to secondary treatment. The site was not thought to have sufficient area for a secondary facility large enough to service future needs, so an alternate site was determined. The City of San Diego has applied for a waiver which appears forthcoming and will negate the requirement for secondary treatment and an alternate site. Once the waiver is granted, Point Loma can easily provide additional capacity in the near future.

COLLECTION FACILITIES

Wastewater flows from a collection system which extends throughout the developed areas of Poway into the Poway Trunk Sewer which parallels Poway Creek past the abandoned treatment plan. The Poway Trunk Sewer currently connects to the Penasquitos Interceptor Sewer which transfers the wastewater to the Metro System. Capacity in the Penasquitos Interceptor and the Poway Trunk varies from section to section but averages 8 mgd for the interceptor and 5 mgd for the trunk.

Impacts

Wastewater treatment plants are designed to treat average daily flows and fluctuations in flow result in fluctuations in effluent quality. The hydraulic capacity of wastewater transmission lines, however, is designed to accommodate peak flows and extreme fluctuations could result in backup or overflow.

Implementation of the proposed project will require the provision of wastewater disposal service to an area not currently served. Accommodation of the project-generated wastewater will require construction of a collection system which extends to the current facilities and provision of wastewater treatment and disposal. Preliminary grading concepts indicate that wastewater pumping will not be required on the proposed project site and detailed plans will be designed such that any pumping that may be necessary is minimized.

Wastewater flows from the proposed project during dry weather conditions are shown in the following table.

Table 32
WASTEWATER FLOW PROJECTIONS

Land Use	Units or Acres	Factor	Daily Wastewater Flow
Residential	272 d.u	270 gd	74,000 gallons
Commercial	28 ac.	2,500 gd	70,000 gallons
Industrial	644 ac.	1,000 gd	644,000 gallons
TOTAL			788,000 gallons

The potential environmental impacts associated with the provision of wastewater service to the proposed project site include the following:

1. Long-term increased demand on available wastewater treatment facilities;
2. Incremental contribution to flows in the collection system in the city of Poway, the subsequent transmission lines, and the Point Loma treatment plant as well as contribution to the cumulatively created need for additional infrastructure and facilities;
3. Short-term construction impacts such as noise and dust associated with line placement on the project site;
4. Potential growth-inducement impacts associated with addition or improvement of infrastructure either directly or indirectly serving the project site; note that the majority of the area surrounding the project site is either built out or designated for planned or pending growth.

Cumulative Impacts. Cumulative impacts include an areawide increase in wastewater flows through the city of Poway collection facilities, the Poway Trunk, the Penasquitos Interceptor, and the Point Loma Treatment Plant. These increased flows from the area incrementally add to the need for better or larger facilities. Addition or improvement of infrastructure in the area will cumulatively induce growth in the area.

Project Alternatives. The impacts associated with development of Alternative (3) or (1) would be very similar to those of the proposed alternative except that more or fewer facilities and wastewater capacity would be required. Alternative (3), the high intensity development would generate approximately one million gallons of wastewater per day while Alternative (1) would generate about 70,000 gallons daily.

Mitigation Measures

1. The wastewater facilities recommended in the Fannon report should be implemented including lines connecting the project site to the existing Poway Trunk Sewer and Penasquitos Interceptor. Eventually, parallel pipe lines will be required to create additional capacity for this system.

2. Funding for these improvements should be borne jointly by the project proponents and the city of Poway. The proponents shall provide linkage to offsite facilities.

3. Construction of onsite improvements should be scheduled in conjunction with project implementation.

4. The project proponent should contribute toward offsite improvements demanded by the project.

5. The project proponent shall pay the standard sewer connection fees which contribute to construction of new pipelines and purchase of capacity rights.

6. Any offsite improvements shall be closely coordinated with and subject to final approval by the city of Poway.

7. Policies and regulations of the Poway Water Conservation Element and the State Water Resources Board shall be applied and incorporated in the building of structures and site development in order to reduce the project's wastewater collection and treatment requirements.

4.12.10 Water

Information relating to existing and necessary facilities is again provided by the W.W. Fannon report contained in Appendix K. It is assumed that the city of Poway will plan, design, and operate these facilities.

Existing Conditions

REGIONAL WATER SUPPLY

Potable water supply to users in the region is primarily from the Metropolitan Water District of Southern California (MWD), which imports water from the Feather River system in northern California through the State Water Project, and from the Colorado River. In 1960, MWD contracted with the

California Department of Water Resources for eventual delivery by 1990 of a maximum of about two million acre-feet per year of northern California water into the district's system.

Currently, the district receives approximately 700,000 acre-feet per year from northern California and 700,000 acre-feet per year from the Colorado River. While MWD has contracted for a certain quantity of water, the actual amount of water available for delivery is expected to be less without the Peripheral Canal portion of the State Water Project. Also, with completion of the Central Arizona Project in 1985, MWD will lose a portion of its water entitlement from the Colorado River. This reduction will contribute further to longer term problems of regional water supply.

The San Diego County Water Authority (CWA) is an MWD member agency. The distribution system of CWA consists of the extensions of the aqueducts from the MWD delivery point to the south end of San Diego County, including an extensive network of reservoirs and pipelines.

CITY OF POWAY

Water service in Poway was originally provided by the Poway Municipal Water District but was absorbed by the city of Poway upon incorporation. The water system is well engineered and well maintained. Service is provided by utilizing a reservoir, treatment plant, distribution system, and distribution storage reservoirs.

The majority of the water supply is obtained from the San Diego County Water Authority (CWA). About five percent of the city's water supply is obtained from local runoff into Lake Poway. This reservoir serves as a storage basin for CWA water as well as receiving local runoff.

The city operates a water filtration, coagulation, sedimentation plant which filters and disinfects the water prior to distribution. The existing filtration plant, the Poway Water Treatment Plant, has a rated capacity of 24 mgd which will support an average daily flow of about 10 mgd. (About 200 gallons of water is utilized per day per capita.) The plant was constructed such that it could be modified to treat 36 mgd but

currently the city has no plans for expansion. In addition, up to 8 mgd of water is provided to the Ramona Municipal Water District by what is considered an interim arrangement.

Distribution is accomplished via a relatively new pipeline network. The sizing and layout of the system currently provides adequate supplies and pressures throughout the service area. There are ten distribution storage reservoirs within the system; the Welton Reservoir is located in the northeastern portion of the proposed project site.

Impacts

Implementation of the proposed project will contribute to regional water demand while water is anticipated to become increasingly low in supply. In addition, water service will be required in an area not currently served.

Onsite development will demand water for several purposes. Flows to development include water utilized in residential, commercial and industrial land uses as well as sizable flows utilized in landscape irrigation. Large quantities of water must also be available upon demand for fire-fighting purposes. Utilizing average values based on Poway and other municipalities the following design flows were determined for the proposed project.

Table 33
WATER FLOW PROJECTIONS

Land Use	Units or Acres	Factors	Daily Water Usage
Residential	272 d.u.	500 gd	136,000 gallons
Commercial	28 ac.	3,000 gd	84,000 gallons
Industrial	644 ac.	2,000 gd	1,288,000 gallons
TOTAL			1,508,000 gallons

Distribution storage (ie., storage tanks or reservoirs on the distribution system) is necessary for provision of water during periods of peak flow. Table 34 indicates estimates of distribution storage required for the proposed project.

Table 34

WATER STORAGE PROJECTIONS

Use	Factor	Water Storage
Fire flow	2,000 gpm for 2 hrs.	240,000 gallons
Development storage	40% of 1.6 mgd	60,000 gallons
TOTAL		300,000 gallons

The project will incrementally place additional demand on the Poway water treatment facility but will not necessitate expansion of the existing facility or distribution system. Within the property boundaries, pump stations, storage reservoirs, and a distribution system will be needed. These facilities are generally consistent with the concepts developed for the area in the Water Master Plan of the city.

Construction of these facilities will have short-term impacts on air, water, and noise quality.

Cumulative Impacts. The proposed project combined with other developments in the region will cumulatively add to regional demands for water. The project will incrementally add to the demand for treated water from the Poway Water Treatment Facility and the demand for transmission facilities. Addition or improvement of infrastructure in the area will cumulatively induce growth in the area.

Project Alternatives. The impacts of the high and low intensity alternatives would be very similar to those of the proposed project except for differences in water demand and differences in pipe sizes required for distribution. Alternative (3) would demand about two million gallons per day of water flow while Alternative (1) would require about 129,000 gallons per day.

Mitigation Measures

1. The water transmission facilities recommended in the Fannon report should be implemented including distribution storage, reservoirs, pumping stations, and distribution lines. A detailed water supply service planning for the project shall occur during the tentative map stages of processing and will be subject to final approval by the city of Poway.

2. The project proponent shall be required to construct all onsite and offsite water infrastructure linkages required for transmission to master planned water facilities.

3. The project proponent shall pay the standard connection fees which contribute toward expansion of the water treatment facility and pipelines.

4. All improvements to the existing water service system necessitated by approval of the project shall be financed by the project proponents.

5. Construction of onsite improvements should be scheduled in conjunction with project implementation.

6. The policies and regulations of the Poway Water Conservation Element and the State Water Resources Board shall be implemented and incorporated in the building of structures and site development. Included are low-flow showers, low-flush toilets, and water conserving appliances and irrigation systems.

7. Where feasible, reclaimed water should be utilized for non-contact purposes such as irrigation and gravel washing. Structures should be pre-plumbed for acceptance of reclaimed water.

4.13 AESTHETICS

The visual analysis of the project area incorporated computer-generated isometric views, viewshed analyses and development of several key cross-sections by PRC Engineering, Inc. These studies have been critiqued, reviewed, confirmed by field observations and supplemented by photographs.

4.13.1 Existing Conditions

The PRC Engineering computer-generated viewshed analysis consisted of the following steps. The project site and immediately adjacent areas north to Poway Road were placed under a grid system, consisting of 75-foot-square cells. The average elevation of each cell was determined. Over 20,000 cells were evaluated and then encoded into the computer. Twenty-two observation points surrounding the project site were then selected. Selection was based on the assumption that the ciritical observation area followed the heavily traveled Poway Road to the north of the site, Pomerado Road to the west (a city Scenic Roadway/county Scenic Highway) and Beeler Canyon Road (a county Scenic Highway) to the south (refer to Exhibit 29).

The viewshed program then analyzed each cell in terms of its visibility from the observation points, based on the relative elevation of the cell and the observation point and on the relative position of the cell with surrounding elevations. Each cell was then categorized as "not visible," "visible from one observation point," "visible from two points," etc., up to "visible from ten points," as indicated by shades on the graphic printout. The program identifies only visibility and makes no evaluation of type or "quality" of view, and is limited to evaluation of ground-level elevations. Factors of other potentially obscuring features, such as buildings and vegetation, were not included.

The proposed project area consists of a major east-west trending ridgeline dissected by numerous finger-like canyons. The overall appearance of the vacant property is one of rolling, rounded hills blanketed with grassland scrub growth. Some portions of the area have been used for grazing. The north-facing slopes form a distinctive visual boundary to the city of Poway, forming a natural background to the main commercial/residential

Note: Level of site visibility is indicated by darkness of cell; darkest cells indicate visibility from up to 10 surrounding vantage points along Poway Road, Pomerado Road or Beeler Canyon Road.

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Computer Generated Viewshed Analysis
SOUTH POWAY PLANNED COMMUNITY

0 800 1600

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EXHIBIT 29

center of the city. Together with the hills surrounding the city on the east and north, these north-facing slopes provide the city with a distinctive, rural atmosphere. Exhibits 30 through 32 provide panoramic photographic views of the property; Exhibit 29a maps the locations from which the photos were taken.

The main commercial area of the city, oriented linearly along Poway Road, borders the project area on the north. The area consists mainly of neighborhood oriented one- and two-story commercial uses interdispersed with vacant properties. These vacant properties currently provide potential view corridors to the north-facing slopes of the property.

On the west side of the property, Pomerado Road winds through a valley dotted with rural ranch-style homes. Pomerado Road then climbs the steep hills to the west, providing panoramic views of the property. The south-facing slopes of the property form the northern side of Beeler Canyon, a distinctive scenic valley with steep walls and a wide meandering river. Padre Transit Mix, Inc. operates a large aggregate mining facility in Beeler Canyon; this operation appears as a large, open cut in the south-facing slopes of the property. This facility will be in operation for several more years under an existing use permit.

The northeast portion of the property is characterized by a northwest-southeast trending ridge and prominent knolls, visible from Garden Road and adjacent residential areas. The property can also be viewed from a distance from points on Highway 67 in the hills to the east and from some residential homes located on hills north of the commercial center.

4.13.2 Impacts

In the analysis of project impacts, vertical cross-sections were made across the project site to illustrate line-of-sight views. Computer-generated isometric views provided oblique aerial views of the proposed project elevations and road configurations. A combined analysis of these products (Exhibits 33 through 35) permits comprehensive assessment of visual effects of the proposed project.

In general, the development of the industrial/business park, commercial and residential areas, as proposed by the South Poway Planned Community Plan, will result in both short- and long-term visual/aesthetic impacts.

1. Short-term visual impacts include:

    . Grading and construction activities during development of the project. These short-term impacts will occur in phases as development progresses through the site.

2. Long-term impacts will result from:

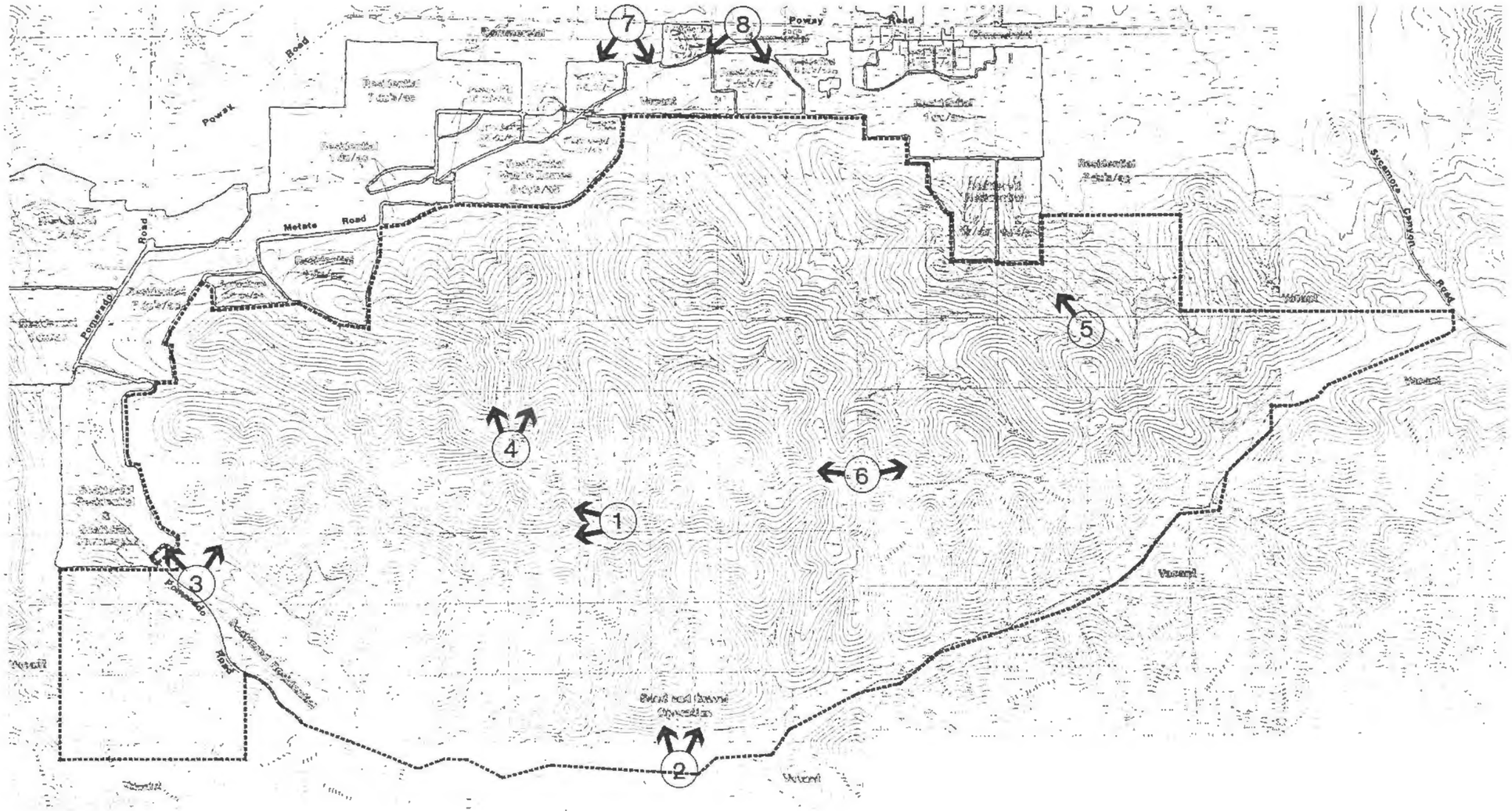
    . Landform modification in the form of grading for development and the loss of associated existing vegetation.

    . The introduction of ornamental vegetation in developed areas.

    . The introduction of industrial/business park, commercial and residential uses.

The proposed project entails an overall leveling of the major ridge area enclosed in the loop road to engineer vertical road alignments and to allow the north and south-facing slopes to act as a natural "screen" to views from the city of Poway and Beeler Canyon. Within the development area, collector roads and graded pads would be developed according to land uses proposed in each concept. The project would involve grading large pads to accommodate industrial uses. At the west end of the project, these areas would be arranged in the circular pattern defined by the loop road. Other areas would be arranged linearly along the east-west spine.

Aesthetic analysis at the master planning level focuses on the visibility of the project from surrounding areas. The aesthetic quality of the project is dependent on how well the proposal meets the objective of retaining the predominantly rural character of the city of Poway. Internally, the project should meet high standards of industrial park design and landscaping. An objective of this analysis is to identify areas requiring special design considerations pursuant to subsequent detailed plans.



Site Photo Index

SOUTH POWAY PLANNED COMMUNITY

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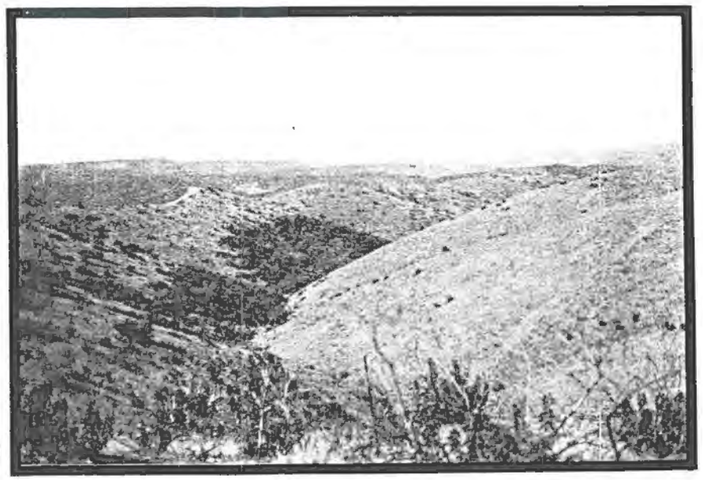
EXHIBIT 29a



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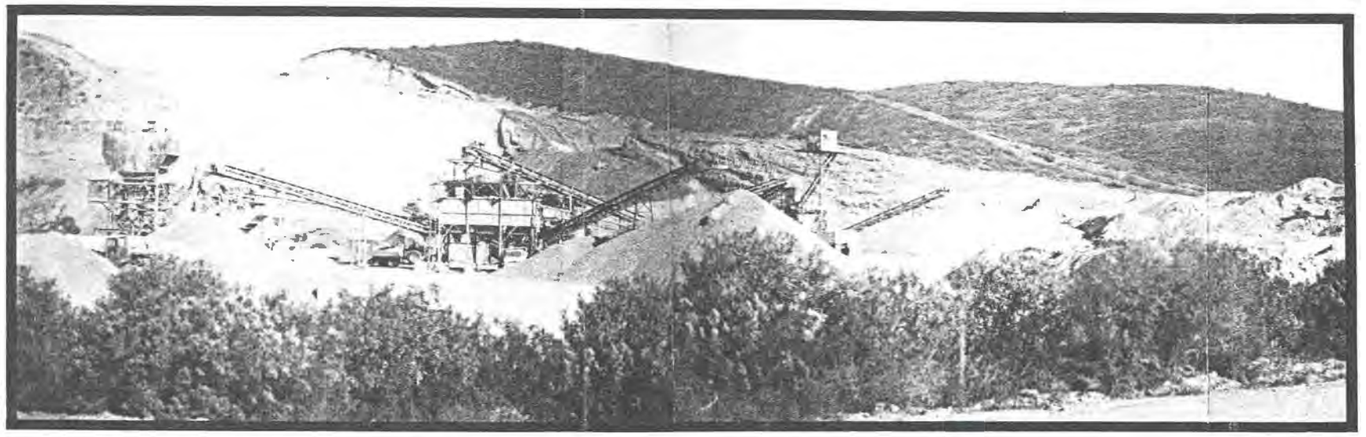

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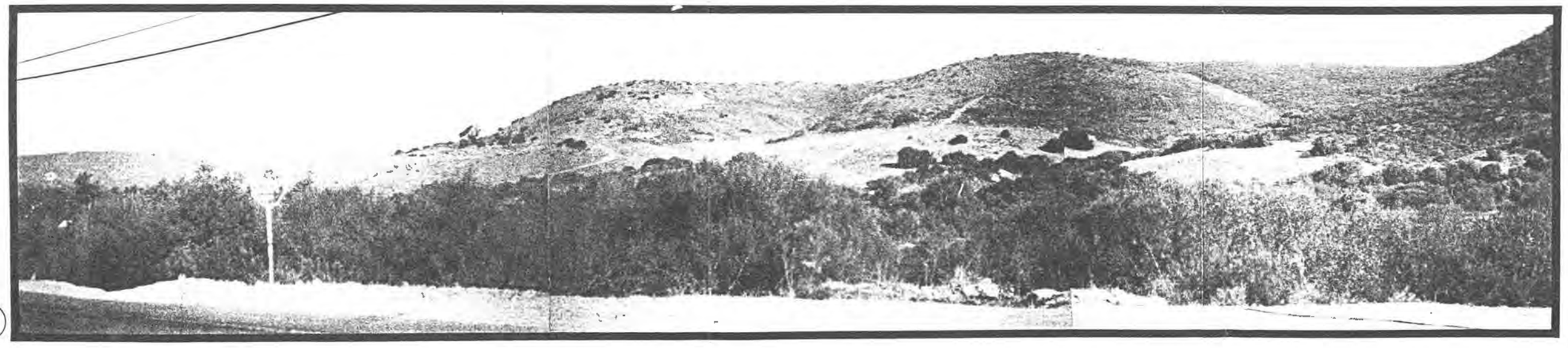

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Site Photographs
SOUTH POWAY PLANNED COMMUNITY

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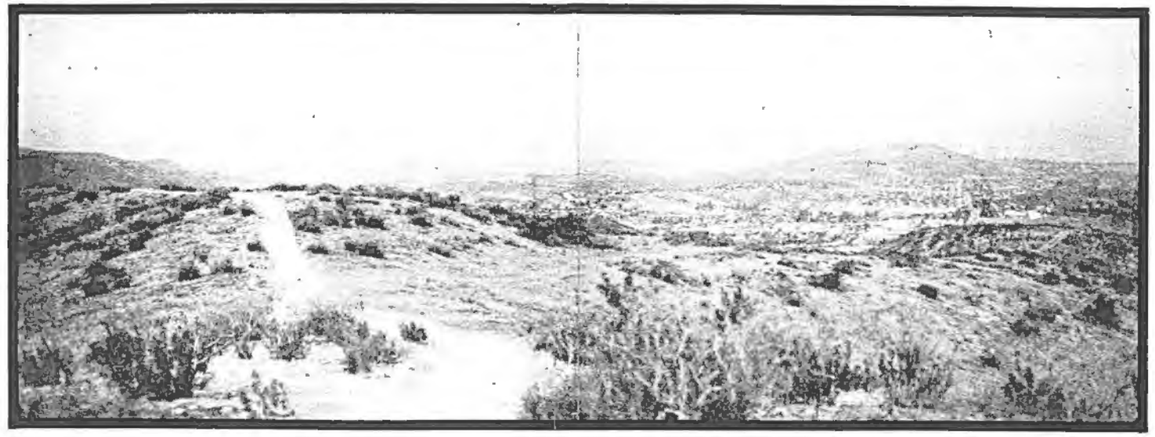
EXHIBIT 30



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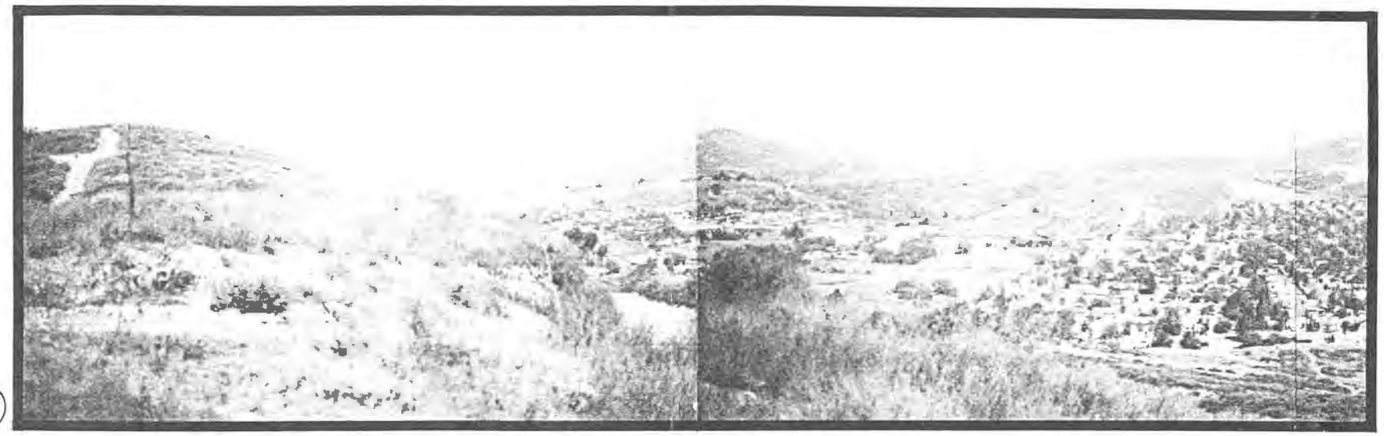

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Site Photographs

SOUTH POWAY PLANNED COMMUNITY

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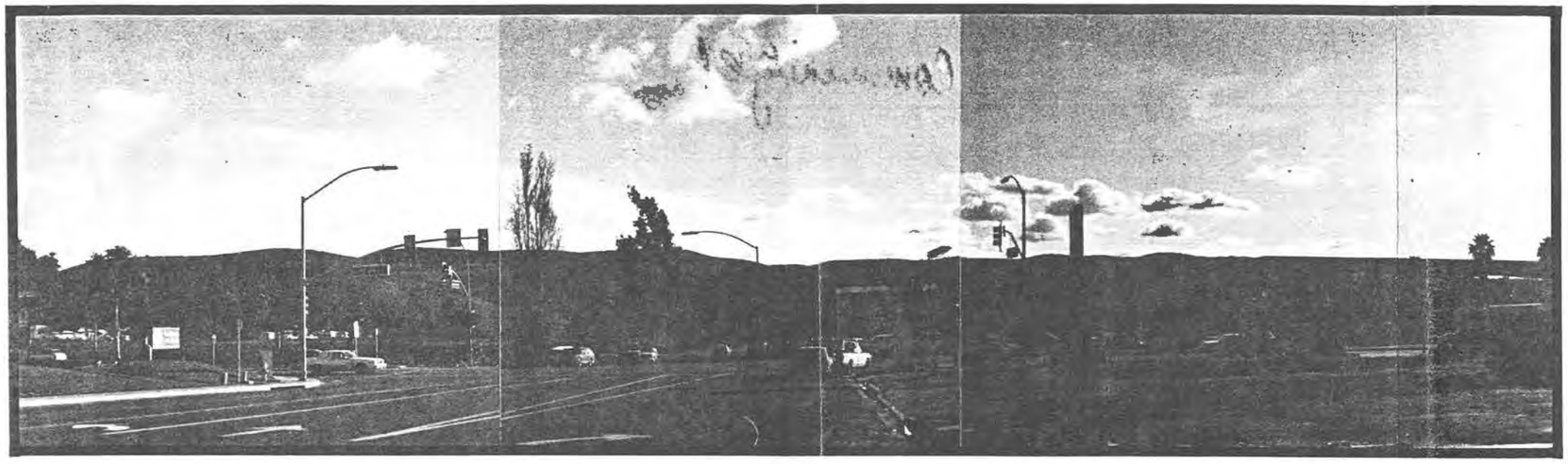
EXHIBIT 31



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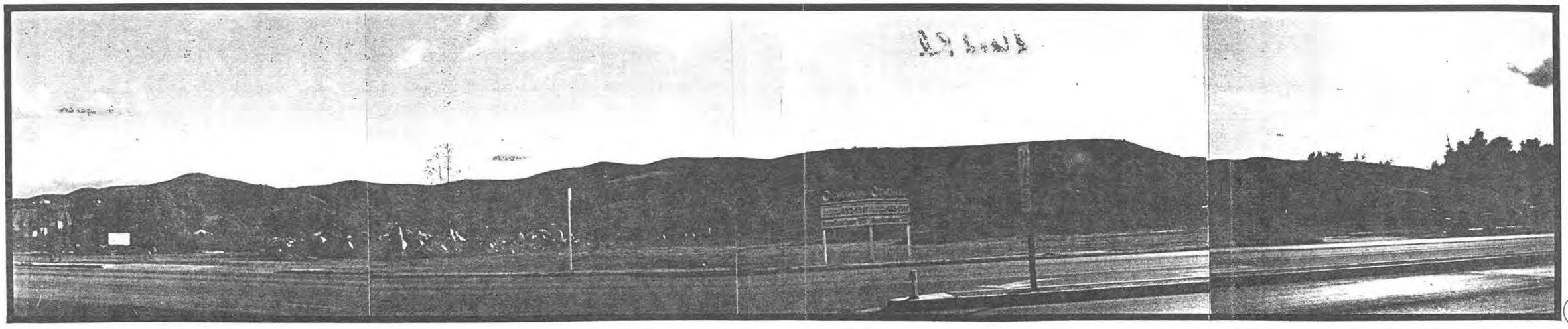

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Site Photographs
SOUTH POWAY PLANNED COMMUNITY

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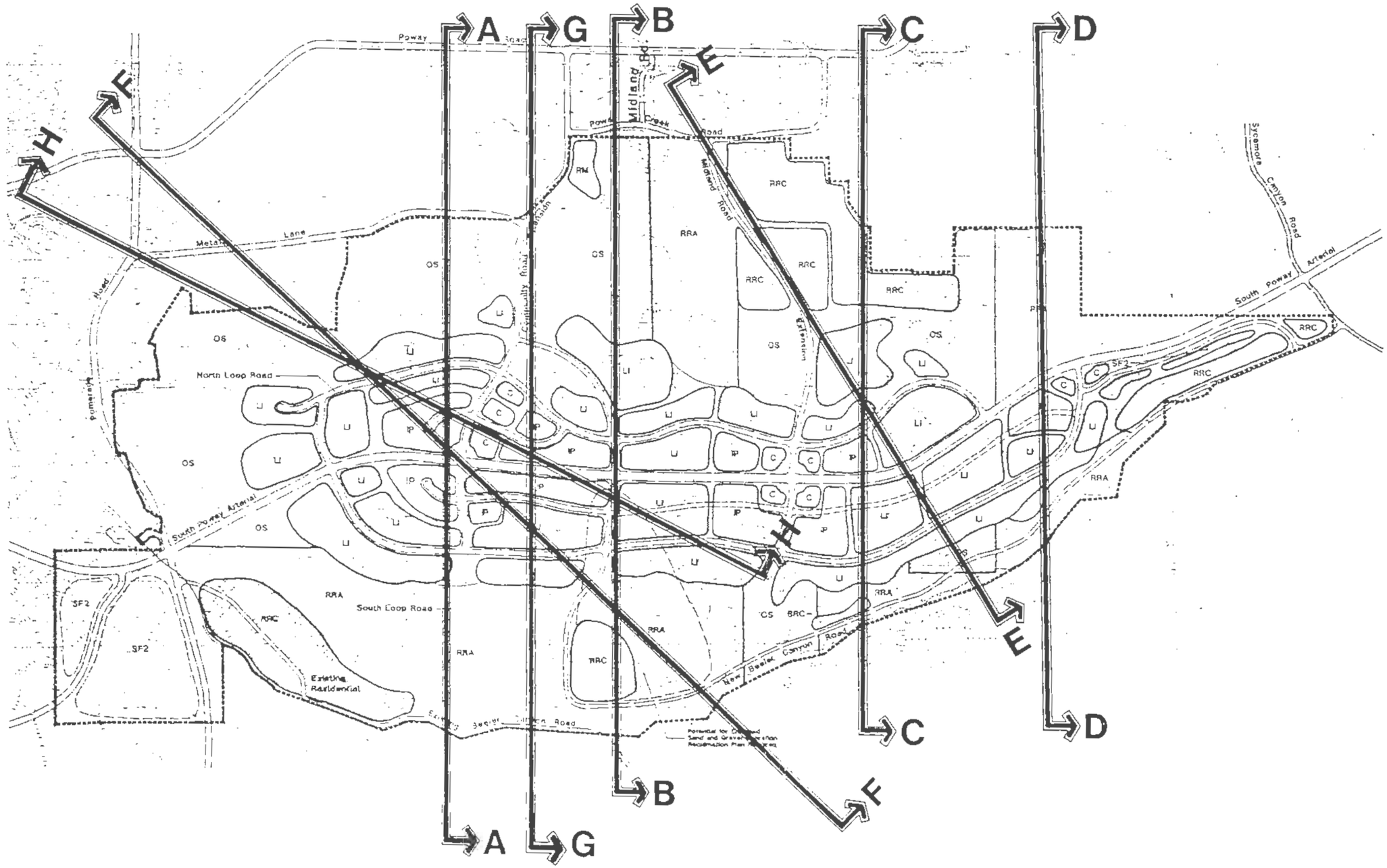
EXHIBIT 32



Cross Section Locations
SOUTH POWAY PLANNED COMMUNITY

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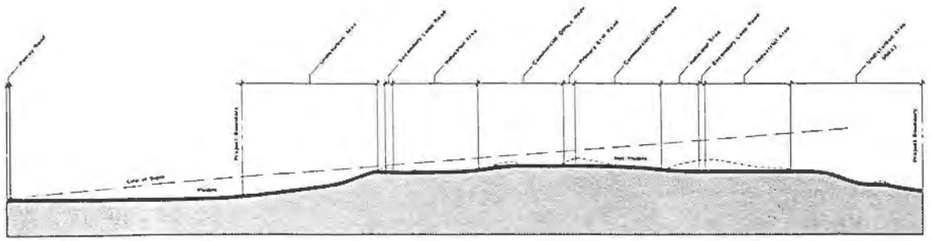
EXHIBIT 33



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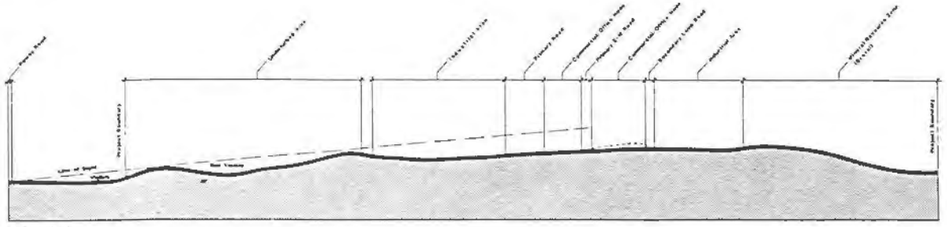

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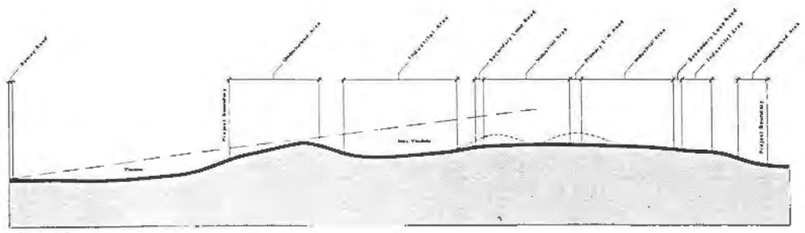

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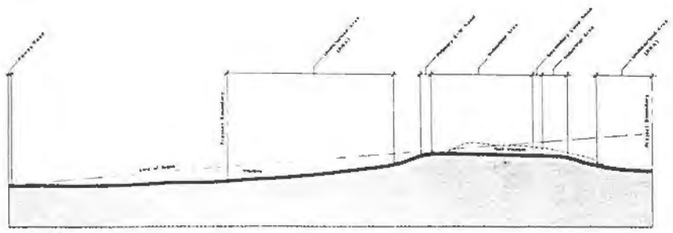

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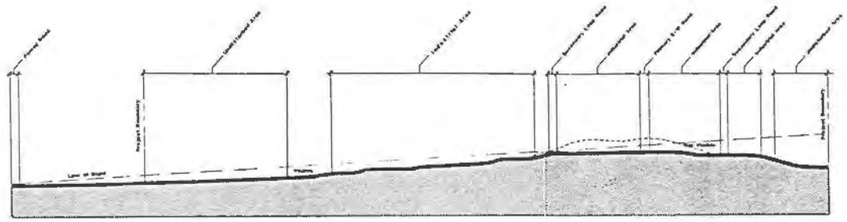

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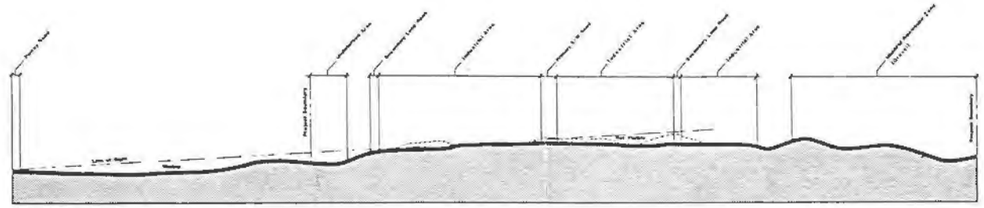

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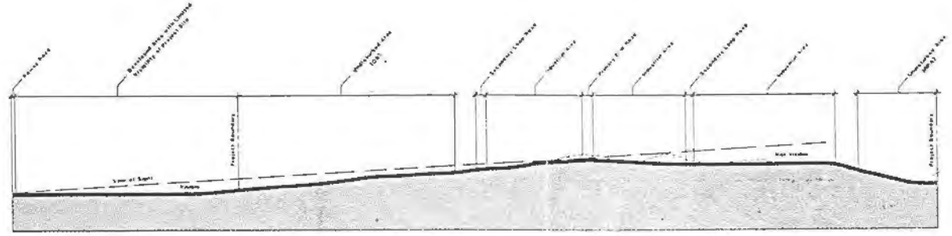

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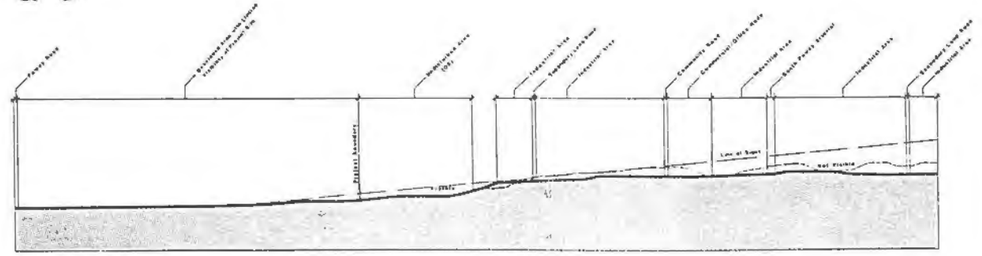

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Cross Sections
SOUTH POWAY PLANNED COMMUNITY

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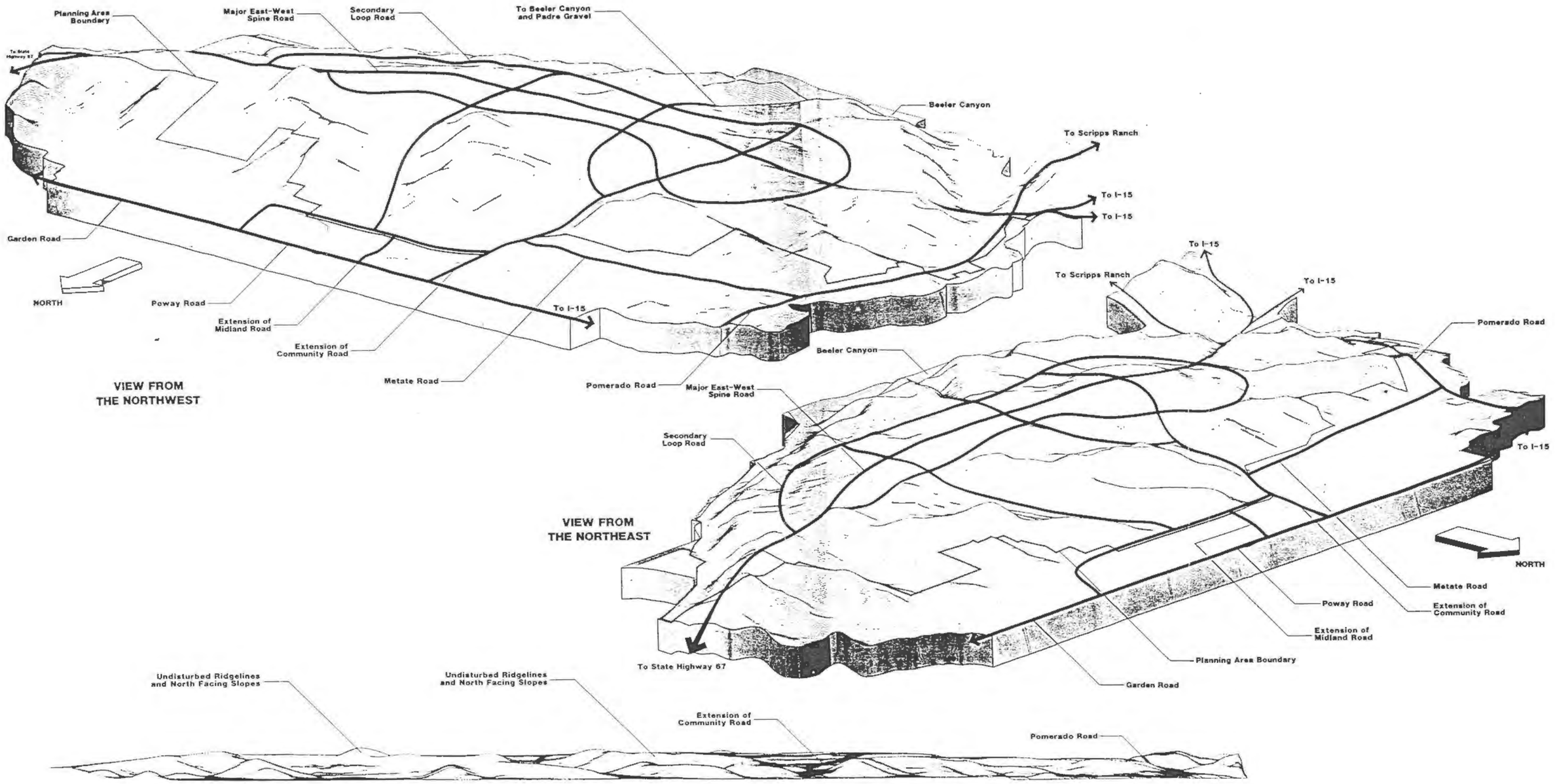
EXHIBIT 34



Isometric Views
SOUTH POWAY PLANNED COMMUNITY

EXHIBIT 35

Roads

The most highly visible areas of the project area as identified in the viewshed analysis would be in the major access points.

The South Poway Arterial would require a major cut in the west-facing slope of the project area. These cut slopes would be a significant change from the existing undulating slopes. This cut will, however, be visible only from a limited portion of Pomerado Road.

The two north access roads would extend through north-south trending canyons to the commercial center of Poway, eliminating some grassland area and isolated riparian woodland. Both new roads would be visible briefly to travelers on Poway Road and Metate Road. The access road on the west (extension of Community Road) would be visible on the edges of the trailer park located on the north site of Metate Road and to a segment of Poway Road. The road on the east would be potentially visible to an area of scattered residential homes and to some extent on both Poway Road and Garden Road.

The south access road must extend up the steep south-facing slopes of the project area and will therefore have high visibility in Beeler Canyon and from a segment of the South Poway Arterial Scenic Highway. However, the existing aggregate mining operation adjacent to the proposed road has a significantly greater impact to the visual quality in the southern portion of the project. The feature will not be mitigable until mining operations cease. The south access road is designed to serve the Padre operation (in order to draw heavy truck traffic off of Beeler Canyon Road) and a few residences in the east end of the canyon. Several rural homes will have views of the new south access road.

The proposed development area is substantially screened from view from the central commercial corridor of the city of Poway and from Beeler Canyon. Perimeter landform alterations (eg., cut/fill slopes) associated with the project development would be visible from certain observation points, but not from the entire city. For example, in the northwest end of the loop road (cross-section FF Figures 33 and 34), the edge of the loop road and

fill slopes would be partially visible from Poway Road and Metate Lane. The view from Poway Road is partially obscured by buildings and stands of trees. Other areas exist around the perimeter, where edges and fill slopes may be visible from certain observation points.

The entire proposed project would be visible from vantage points along Pomerado Road and at a greater distance from hills to the east, points on scenic Highway 67, and from residences at higher elevations in the north portion of the city of Poway. The alteration from the natural terrain to a man-made form would be evident from these vantage points, however distant. The loss of natural viewshed cannot be fully mitigated and is considered an unavoidable adverse impact of the proposed project.

Natural Features

The proposed development will alter a large area of natural ridgetop terrain, eliminating large areas of coastal sage scrub and mixed chaparral. The present natural environment would be replaced by roads and one to two-story industrial and commercial structures. Planned open space and large lot sizes in proposed Rural Residential A areas permit the retention of substantial areas of natural growth. The loss of natural area to development is partially mitigated by the retention of large areas of the north and south-facing slopes.

Night Sky Analysis

A night sky problem currently exists in San Diego County because an increasing number of light sources associated with development are interfering with research of the observatories in San Diego County. The proliferation of light sources is interfering with the use of photographic plates during astronomical observations. The county has two major astronomical research observatories: the Mount Palomar Observatory, operated by Hale Observatories, and the San Diego State University Mount Laguna Observatory. The Mount Palomar Observatory houses the 200-inch Hale reflector telescope and Mount Laguna Observatory houses a smaller 60-inch telescope. The sky over the Mount Laguna Observatory is so dark that it is believed

to be the nation's second best dark sky site. The proposed project is located approximately 35 miles northwest of the Mount Laguna Observatory and approximately 25 miles southwest of the Mount Palomar Observatory.

Cumulative Impacts. The proposed project is not anticipated to have a significant cumulative visual effect in conjunction with any planned developments in surrounding communities. By itself, the project will not emit enough light to be considered significant to the night sky. However, the cumulative impact of existing and planned development in the County of San Diego, including the proposed project is considered significant, and will continue to affect adversely the research activities at the two observatories.

Project Alternatives. The "high" concept (Alternative 3) proposes a land use pattern similar to the proposed project, but with higher intensity uses. The "low" or rural-residential concept (Alternative 1), would require numerous collector roads and scattered building pads.

In the "low" rural-residential concept (Alternative 1), development would be visible from certain surrounding observation points, as well as the access roads discussed earlier. Depending on specific plans, some collector roads and building pads may be visible but the low density use would retain the rural character of the area. In addition, building setbacks and landscape screening can effectively be applied at potential view corridor areas for single-family housing.

For the "high" concept (Alternative 3), visibility impacts would be similar to or slightly greater than the proposed project. Perimeter areas, identified above, may be slightly more visible where the development boundary extends further than in the proposed project.

3.13.3 Mitigation Measures

Several measures have been included which minimize the visual impact of the proposed project and project alternatives. The north and south-facing slopes are recommended for retention in a natural state for their visual quality. In large measure, preservation of these slopes substantially

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

5.1 NO-PROJECT ALTERNATIVE

The California Environmental Quality Act requires that all environmental impact reports include a comparative evaluation of the "No-Project" alternative. As defined for this project, the no project alternative assumes the city's General Plan for the study area remains unchanged and the proposed Development Plan and Text are not adopted.

This alternative assumes that development of the site as proposed by the Development Plan and Text is not realized in the future. In this instance, the site could only be developed based on the current land use designations of the General Plan. Estimates based on the current designations result in projections of 260 dwelling units and a population of 860 at buildout. No industrial land uses are included in this alternative. The site would either remain in its currently largely undeveloped state or be developed under the stated General Plan rural residential designations. As the profitability of the existing mining operations declines, additional development would likely occur under the current Rural Residential A and Rural Residential C zoning categories. The continuation of existing aggregate resource operations on the site may soon be curtailed, whether the remainder of the project site remains undeveloped or not. Similarly, as surrounding residential communities develop, grazing operations on the site will become less feasible. Increased pressure from surrounding areas for circulation improvements or arterials through the area may occur even if the area is not developed.

This alternative avoids the magnitude of impacts associated with the proposed development as described in this EIR, including grading, major drainage modifications, arterial improvements, loss of open space, increased traffic, air and noise pollution, loss of rural character and increased demands of public services and utilities. Minimal road construction would occur on the project site in the "No-Project" alternative. The disadvantages of this alternative are primarily economic. In addition to the lack of economic return on the land for the project proponents, and the loss of employment opportunities for the city and region, is the lost opportuni-

ties for potential tax revenues to the city of Poway and other taxing agencies. Since no industrial uses are included in this alternative, the land use objectives for a variety of land uses would not be realized.

The no project alternative is contrary to the proponent's desire to secure a viable use of the property and create a cohesive mixed-use community, to create a strong base of employment-generating land uses, and to assist in the completion of regional arterial linkages. The primary reasons for rejecting this alternative are the economic disadvantages, the failure to effectuate the current planned community zoning and land use objectives of the General Plan, and the improbability of maintaining the area in a semi-rural state with the approved and planned development in the immediate surrounding areas.

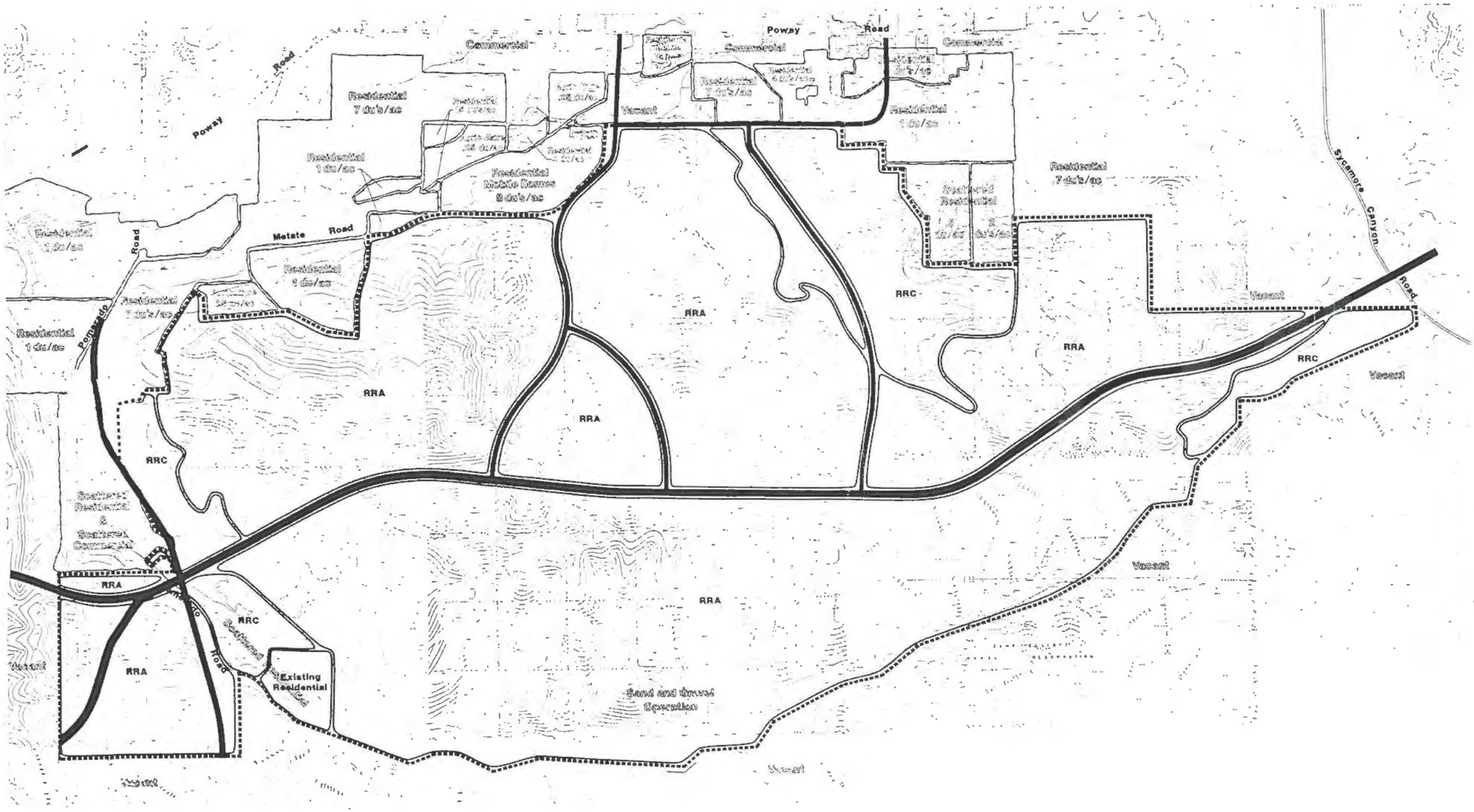
The no project alternative could be considered an "environmentally superior alternative" in that fewer traffic, air pollutants, noise and public service demands than the proposed project would be generated.

5.2 DEVELOPMENT OF THE SITE FOR ALTERNATIVE LAND USES

Alternative 1 - Low Intensity

Under this alternative, development of the project site would be limited to the uses and densities shown in Table 2 of Section 3.5 of this EIR. The site would be developed with approximately 260 dwelling units. No industrial or commercial land uses are proposed (Exhibit 36).

This alternative would result in less intensive development than the proposed project and would be accompanied by reduced cumulative demands on regional water supplies, energy resources, local public services and utilities, less landform alteration and reduced traffic generation. Accompanying the reduction in traffic generation would be fewer mobile source air pollutants and less vehicular noise. The number of dwelling units in the no project and low intensity alternatives are similar. However, an east-west arterial would be developed in the low intensity alternative; which accounts for the major increase in environmental impacts.



Conceptual Land Use Plan, Alternative 1–Low Intensity
SOUTH POWAY PLANNED COMMUNITY

PRC Engineering, Inc.

0 800 1600
FEET

pbr

EXHIBIT 36

The disadvantages of this alternative relate to the overall intensification of development. Impacts identified throughout this EIR would generally be increased. This is especially true for urban system impacts such as traffic generation, air and noise pollution, demands for public services and utilities, loss of open space, landform alteration, loss of rural character and aesthetic impacts. In addition, increased residential development (400 more units than the proposed project) would further contribute to the imbalance of employment and population in the region. The intensification of scale would result in the need for larger public facilities and arterials in the area.

The increase in the environmental impacts attributable to Alternative (3) relative to the proposed project result in its rejection. The primary reasons for rejection of the alternative are related to increased traffic impacts, the scale of residential development in proportion to the area/regional demand, the increased modification of landforms, the increased loss of open space and the increased loss of rural character. The magnitude of these impacts needs additional evaluation at later stages of planning. Alternative (3) - High Intensity, because of the increased impacts due to the intensification of the land uses is rejected as a viable alternative due to its potential environmental impacts.

The disadvantages associated with this alternative include reduced employment opportunities, greater difficulties in providing on- and offsite public facilities and services. Considerable infrastructure improvements would still be required to accommodate new development, including water supply/wastewater disposal systems, and arterial access roads. Essentially fixed infrastructure improvement costs would have to be amortized over a smaller development base. Similarly, the development of fewer units within the study area would generate less tax reveneus for the city and other taxing agencies.

The costs of providing police and fire services to the area would be paid for through less tax revenues.

This alternative is not rejected due to the difficulties associated with financing service and infrastructure costs, the lower expected economic return, the failure to fulfill some objectives of the general plan or the impacts due to construction of the east-west arterial. The anticipated environmental impacts of the low intensity alternative are such that the alternative is retained for consideration. CEQA requires a remaining alternative be designated environmentally superior if the no project alternative is considered environmentally superior; Alternative (1) is considered environmentally superior of the remaining alternatives.

Alternative 3 - High Intensity

Under this alternative, the project site would be developed at the upper ranges of the proposed residential densities. Implementation of this alternative would result in the construction of approximately 740 dwelling units at buildout, 35 more acres of industrial land uses and nine additional acres of commercial/office uses than the proposed project. The number of employees would increase by approximately 960 (Exhibit 37).

The advantages of this alternative would be the improved ability to pay for development services, the increased economic return and the increased tax revenues. The costs for development of infrastructure would be amortized over a larger development base. Increased employment opportunities, development of the east-west arterial and implementation of many of the land use objectives of the General Plan would be accomplished.

The disadvantages of this alternative relate to the overall intensification of development. Impacts identified throughout this EIR would generally be increased. This is especially true for urban system impacts such as traffic generation, air and noise pollution, demands for public services and utilities, loss of open space, landform alteration, loss of rural character and aesthetic impacts. In addition, increased residential development (400 more units than the proposed project) would further contribute to the imbalance of employment and population in the region. The intensification of scale would result in the need for larger public facilities and arterials in the area.

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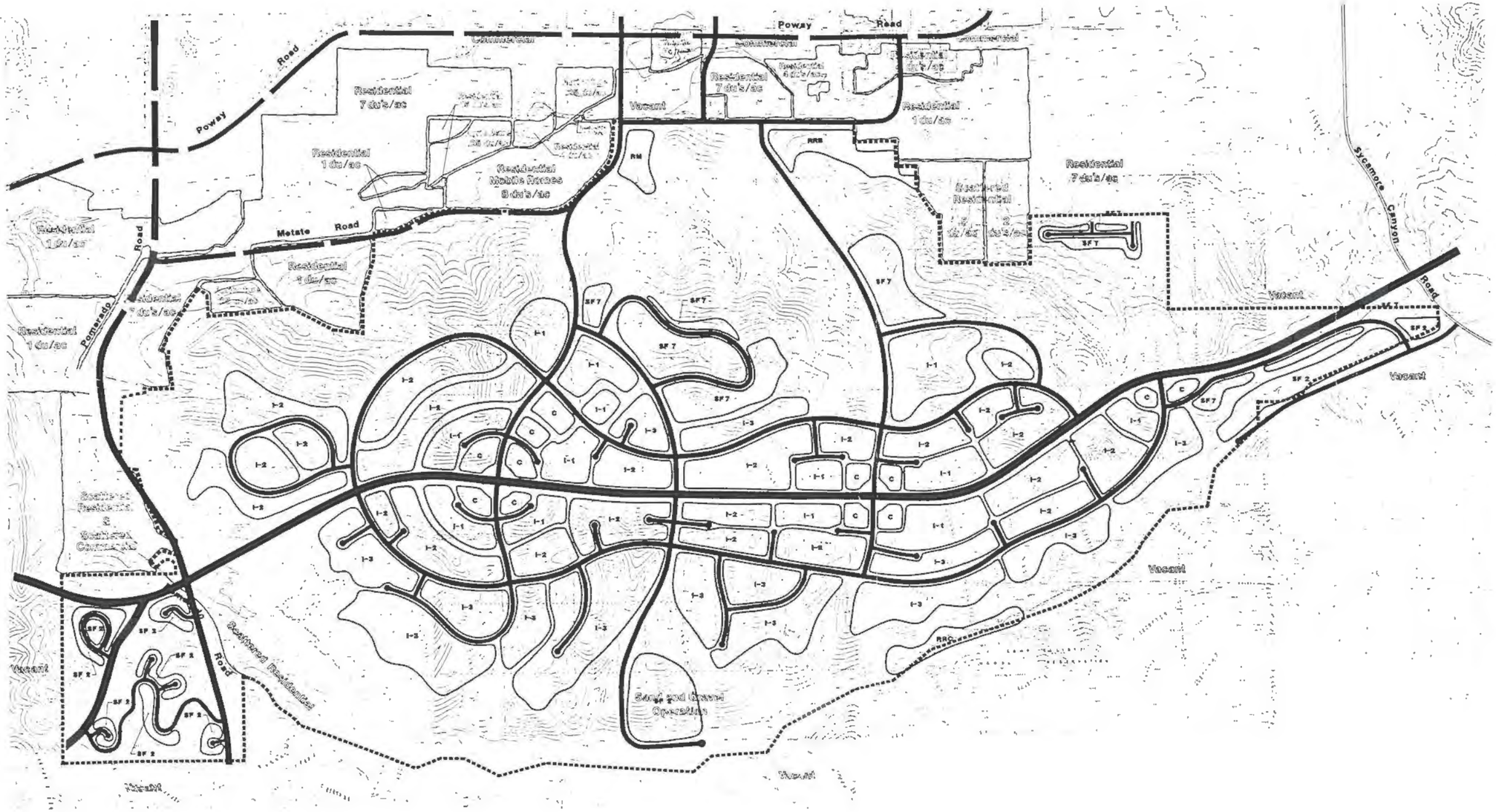

COMMERCIAL

C	Neighborhood/Office

INDUSTRIAL/BUSINESS PARK

I-1	Specific uses will include the following: Offices, Research & Development, Light Manufacturing, Warehousing & Distribution. These uses will be assigned to the appropriate use designation; I-1, I-2 or I-3 in accordance with the design standards to be developed as part of the Specific Plan.
I-2	
I-3	

RESIDENTIAL

SF 2	Single Family 2
SF 7	Single Family 7
RRB	Rural Residential B
RRC	Rural Residential C
RM	Residential Mobilehomes

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Conceptual Land Use Plan, Alternative 3–High Intensity
SOUTH POWAY PLANNED COMMUNITY

FEET 0 800 1600

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EXHIBIT 37

6.0 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The primary effect of this project is commitment of rural and vacant land to more intensive rural residential and industrial/commercial land uses. Development of a planned community which consists of residential, commercial, light industrial, and open space uses will increase the productivity of the area in terms of efficient use of the land and economic returns. On the other hand, development of this project will contribute incrementally to permanent regional and local losses of open space, pasture, and mineral resources. These losses may have unforeseen long-term consequences.

Development and use of the property as a planned community which is a residential/employment center is anticipated to span about 50 to 75 years. This is considered a relatively short-term use of man's environment, however, development is considered a permanent commitment of land and mineral resources to urbanization since it is highly unlikely that the land would revert to open space in the future. It is assumed that the components of the planned community will be gradually replaced, as they become obsolete, by more productive land uses as redevelopment responds to future needs.

Advantages of near-term development include provision of employment opportunities in proximity to housing and an increased revenue base for the city of Poway and the county of San Diego. It is difficult to determine the advantages of postponing development of the property since long-term development alternatives are virtually unpredictable. Future development impacts to the physical environment are likely to be very similar to those of the proposed project. Included are impacts to hydrology, landform, biotic communities, open space, etc. Due to increasing scarcity of land and the subsequent increase in value of land, the currently proposed level of open space dedication may be precluded in the future.

7.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF ENERGY SUPPLIES AND OTHER RESOURCES SHOULD THE PROJECT BE IMPLEMENTED

Approval of the proposed Master Plan for the South Poway Planned Community and associated actions will allow development of an approximately 2,500-acre site comprised of rural and vacant land. The life of the facilities and structures of the project will span an estimated 50-75 years, which is a short-term commitment of land and mineral resources to a planned community consisting of residences, businesses, and industry.

Irretrievable and long-term commitment of energy supplies, structural materials, aesthetic resources, and natural resources result from all development. Long-term commitments of resources which may directly or indirectly result from project implementation are summarized below.

A. COMMITMENT OF LAND

Development of the proposed project on the site will constrain future options for development, particularly in the intensely developed central portion of the site. In addition, beyond the 50-75-year lifespan of the project it is unlikely that these structures would be demolished and the land use reversed to low intensity. Urban development will irreversibly level the site's central highlands and alter the topography of areas proposed for rural residential development.

B. MINERAL RESOURCES

Industrial, commercial, and residential development built over mineral resources precludes extraction. Since it is unlikely that removal of facilities and structures will be economically viable in the future, implementation of the proposed project would irreversibly commit existing aggregate resources to development.

C. SCENIC RESOURCES

The proposed project represents a permanent loss of open space which adds incrementally to regional losses of vacant land. Although a portion of the site will be retained as open space, views will be irreversibly altered from primarily pasture to homesites and commercial/industrial land uses. The site's character will be transformed from rural and undeveloped to developed.

D. ENERGY RESOURCES

Transformation of open space to other land use represents a commitment of various energy resources. Development will increase consumption of energy resources at the site. Since fossil fuels are currently the most extensively utilized energy sources, it is logical that the project will continually and incrementally reduce the non-renewable supply of natural gas and petroleum products such as oil and gasoline. These resources will be required for engines used in project construction, engines used for transportation of people and goods, and also for heating/cooling of buildings. The project will ultimately consume an estimated 62.3 megawatt-hours of electricity and 400.7 million cubic feet of natural gas annually, which is a long-term, irretrievable commitment of energy resources.

E. OTHER NATURAL RESOURCES

Implementation of the proposed project would irretrievably commit or deplete other non-renewable or slowly renewable resources. These include, but are not limited to: forest products, sand and gravel, petroleum products, metals such as iron, copper, and lead, soils suitable for agriculture or pasture, and water.

8.0 GROWTH-INDUCEMENT AND CUMULATIVE IMPACTS

8.1 Growth-Inducing Impacts

Ultimately the proposed project will accommodate a total population of approximately 816. The project will add 272 dwelling units to the city's housing stock and approximately 13,200 employees at buildout. The San Diego Association of Governments (SANDAG) Series 6 growth forecasts for Major Statistical Area 1 (MSA 1) - North City project substantial employment growth for the area in the next twenty years (see Section 4.7, Table 7). The Series 6 Forecast includes estimates of 260 dwelling units and a population of 863 for the project area based on the current land use designations of the General Plan. The project's impacts on residential growth are relatively minimal; approximately 92,000 additional dwelling units are forecast in MSA 1 between 1980-2000. Over 22,000 additional acres may be devoted to residential use in MSA 1 in the next twenty years. Therefore, development of the proposed project would result in minimal increases in the dwelling unit and population increases (less than one (1) percent) anticipated for MSA 1 from 1980 to 2000.

Within the proposed project immediate area, development is generally established or committed by approved plans. Areas with approved plans are the Scripps Miramar Ranch, Sabre Springs, Miramar Ranch North, and Rancho Arbolitos (Exhibit 2). Only Rancho Arbolitos is located within the city of Poway; other major projects mentioned are located in the city of San Diego. Because surrounding land uses are committed and will generally precede the proposed project phasing, the project does not result in substantial direct residential growth inducement. The corresponding dwelling units, commercial and industrial acres proposed for each project are listed in Table 35 in Section 8.2.

No significant growth-inducement effects are anticipated in the undeveloped areas south of the project. These areas, designated Future Urbanizing Areas by the city of San Diego, will not include any project-related infrastructure extensions. No new roadways are proposed by the project through these lands. The 2,000 acres owned by General Dynamics is currently zoned M-2 and a general plan amendment is required for any zone change proposal.

The city of Poway retains the ability to control growth on lands governed by the General Plan. The immediate areas north of the proposed project are either developed, in approved plans or within the city of Poway. No significant growth inducement is anticipated in this direction due to the project.

The proposed extension of the South Poway Arterial may potentially induce new growth within the unincorporated "island" southwest of the project site. However, this "island" is proposed to be annexed by the city of San Diego in conjunction with the Scripps Miramar Ranch development. Development of the "island" is probably inevitable and is induced by the surrounding land use plans independently of the extension of the South Poway Arterial.

Development of the proposed project will require provision of water and wastewater service to an area not previously serviced. However, proposed water and wastewater lines will be sized to accommodate project demands without significant additional capacities. Ultimately, additional sewer line capacity to serve the project may be required with a parallel line to the existing Poway Trunk. If needed, this line would traverse existing and committed development along Poway Road (eg., Sabre Springs) and would not induce significant new growth or intensification.

The Series 6 Forecast does not include estimates of employment resulting from industrial or commercial development within the project site. Therefore, the addition of 13,200 employees to MSA 1 resulting from project development is a potential indication of a significant environmental effect. While the conversion of land to employment uses is a physical change which results in economic changes, the physical changes, in this case, are not indicative of a significant environmental effect in their local and regional context. The project site is situated in a predominantly urban region, characterized by dispersed residential and employment centers. Employment-population balance in a small geographical area may be desirable from an environmental analysis or urban planning perspective, but due to the historical development of the region, is more likely achieved at the regional level. Conclusions of significant project-induced growth resulting from land conversion to employment uses is not evident from an analysis of the immediate project area. Further analysis of growth inducement is included in the following section on cumulative effects.

8.2 Cumulative Impacts

Forecasts for MSA 1 indicate significant growth for 1980 to 2000. However, the region may experience balanced growth; the percentage change in population is approximately equal to the percentage change in civilian employment. As discussed previously in Section 4.7 SOCIOECONOMICS, the city of Poway has experienced lower rates of growth than the rates for MSA 1 or the San Diego region. Within the context of projected regional development, various proposed project impacts associated with residential development may be viewed as proportionately minor from a cumulative perspective.

A list of the major projects approved surrounding the proposed South Poway Planned Community is detailed in Table 35. All of the projects, except Rancho Arbolitos are included in adopted community plans for the city of San Diego.[1] The Adjusted Series 6 Forecasts (revised based on the 1980 Census) include these projects. As mentioned previously, Rancho Arbolitos is located within the city of Poway. The approved projects listed in Table 35 have an estimated total population of 63,200 and will add 22,875 dwelling units in the region at buildout. Approximately 2,200 occupied dwelling units were within Scripps Miramar Ranch in 1980.

Table 35

CUMULATIVE MAJOR PROJECT STATISTICS

Project	Approved DUs	Additional Proposed DUs	Commercial/ Office Acres	Industrial/ Business Park Acres
Miramar Ranch North	3,900	(1,800)	18	145
Sabre Springs	5,100		35	63
Scripps Miramar Ranch "County Island" Amend.	6,000	(200) (1,500)	53	290
Rancho Arbolitos	975	--	0	0
Carmel Mountain Ranch	5,600	--	186	170
TOTAL	21,575	(3,500)	292	668

1 Correspondence from Keith Rogers, Senior Planner, Planning Department, city of San Diego, October 18, 1984.

The employment-generating land uses proposed by the project are not significant as a cumulative impact. In its regional context, the project provides employment opportunities for the city of Poway, and the region. In 1980, more than half (55 percent) of the Poway work force was employed in the city of San Diego. Continued development in the surrounding projects is predominantly residential. MSA 1 had an employment-population ratio of 0.530 in 1980. The rate is projected to decline slightly to 0.510 in the year 2000. The surrounding project land uses identified in Table 36 may generate approximately 22,070[1] employees at buildout and include a population of 63,200; resulting in an employment-population ratio of 0.349. Clearly, in the context of the city and the surrounding approved projects, the South Poway PC will contribute to a higher employment-population balance for the city and the area. One cumulative impact of the project is greater employment opportunities for Poway and San Diego residents in the immediate project area. Employment opportunities located closer to their place of residence will also decrease the commuting time of area residents.

Areawide development implies a variety of cumulative impacts to the natural and urban environments. Generally, the physical impacts include landform and streambed alterations, increased runoff and urban runoff pollutants, and changes in erosion and flooding patterns, loss and/or displacement of biological resources, disruption of cultural and scientific resource sites, and loss of open space. This development also contributes to the long-term demand for public services and utilities which, in many instances, necessitates a long-term commitment of resources and capital expenditures.

In terms of increased public services and utilities provisions, perhaps the most significant are 1) the created demand for water, which is largely imported supply via the San Diego County Water Authority aqueduct from the Colorado River and northern California, and 2) additional demands for wastewater treatment capacity of the Metro Wastewater Treatment Plan near Point Loma.

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1 Based on 25 employees/acre for commercial land use and 20 employees/acre for industrial land use and projected employment of 11,670 for Carmel Mountain Ranch.

2 Based on 2.56 persons/du projected by SANDAG for MSA 1 in the year 2000.

The cities are expected to have sufficient supplies to meet near-term growth demands. However, in light of the future curtailment of Colorado River water, the proposed project will contribute to growing regional dependence on increasingly scarce imported water supplies.

Wastewater treatment plans for the project site would contribute to cumulative demands on capacity at the Metro Treatment Plan.

The proposed project will contribute incrementally to demands on citywide services including police and fire services. While additional personnel and equipment are required because of the project's impact, no new facilities are required at this time.

Areawide development will also generate substantial energy demands. To date, San Diego Gas and Electric Company has demonstrated ability to meet the energy demands associated with urban growth. Energy resouces will continue to be evaluated with each incremental phase of development to ensure continued adequate electricity and natural gas supply.

Of particular relevance to city and areawide planning efforts are the cumulative effects of increased traffic growth. Of particular concern are the cumulative impacts on Poway Road and Interstate 15. A preliminary traffic analysis by Federhart and Associates recommended trip attracting uses be located in the project area to help balance the peak hour flows in and out of Poway which now occur daily. The study also recommended a major east/west road through the project to relieve traffic on Poway Road. In 1980, approximately 17,400 employees lived in Subregional Area 15 (Poway) and only 9,200 worked in the subregion. MSA 1 has a better employment balance, with 227,200 employees and 202,000 resident workers.[1]

Related to increased vehicular travel, continued areawide development will create increases in auto air pollutant emissions. Approval of the proposed project will have a cumulatively adverse impact on regional air qua-

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1 Telephone conversation with Bill McFarland, SANDAG, November 14, 1984.

lity, absent a revision to the Regional Air Quality Strategy. Additional vehicular travel would also increase noise levels throughout the subregional area, primarily along future arterial and collector roadways.

Collectively, the multiple projects in the South Poway area will potentially result in significant effects on regional air quality, biological habitat availability, traffic, public services, water supply and a number of other areas of concern (eg., cultural resources). Individually, the surrounding projects may have significant effects and have been subject to environmental review. The cumulative, net effect of these and other projects cannot be completely addressed in any one EIR, short of a major review of the city's Comprehensive Plan. The cumulative growth of the entire city is a subject appropriately addressed by the city of Poway in its discretionary review of individual projects and by SANDAG through the forecast and policy planning process.

9.0 UNAVOIDABLE ADVERSE IMPACTS

The following is a summary of the unavoidable adverse impacts which are expected to occur upon implementation of the proposed project.

Landform and Topography

- Permanent large-scale landform modifications will be associated with grading for industrial land uses.
- Further modifications will be associated with grading for roadways and homesites.

Geology, Soils and Mineral Resources

- Soils will be exposed to erosion by wind and water during the short-term grading and construction period.

Hydrology and Water Quality

- Sedimentation potential will increase during the short-term grading and construction phases.
- Cumulative increase in runoff and long-term urban runoff pollutant discharges will occur to downstream areas.
- Existing natural drainage channels within proposed development areas will be eliminated.

Biological Resources

- Habitat and wildlife resources will be removed or displaced from development areas.
- Sensitive species such as coast barrel cactus will be removed in development areas.

Land Use

- The project will commit existing open space and potential pasture land to industrial, commercial, and residential uses.

Transportation

- Up to an estimated 73,158 vehicle trips per day will be generated.

Air Quality

- Short-term air quality impacts will occur, associated with grading and construction phases (eg., dust, equipment emissions).
- Long-term air quality impacts will occur from mobile and stationary emission sources.

Acoustic Environment

- Noise levels will increase onsite and offsite, most notably as a result of increased traffic volumes.
- During grading and construction, short-term noise levels will increase onsite.

Public Services and Utilities

- Demand for services and facilities will increase, including fire and police protection, utilities, schools, and solid waste disposal; wastewater transmission facilities and currently limited treatment capacity will increase; consumption of scarce regional water and energy supplies will increase.

Aesthetics

- From higher elevations in portions of the city of Poway, views of the natural landforms in the central highlands will be altered permanently due to grading and industrial development.
- Regional development including the proposed project will continue to affect the night sky adversely in relation to activities at observatories.

10.0 ORGANIZATIONS AND PERSONS CONTACTED

A. Participants

The PBR personnel who participated in the preparation of this EIR include:

Principal-in-Charge	Phillip R. Schwartze
Project Manager	Thomas F. Holm, AICP
Environmental Research and Analysis	Sidney Lindmark, AICP
	Melinda Vest
	W. Walton Wright
Graphics	Jayna Moore
	Marsha Wood
Word Processing/Copy Editing	Barbara Heath

B. Consultants

Kunzman and Associates	Bill Kunzman
	John Kain
Scientific Resource Surveys, Inc.	Nancy A. Whitney-Desautels

C. Other Organizations and Persons Consulted

PRC Engineering	Rikki Alberson
	Tom Larkin
San Diego Association of Governments	Bill McFarland
	Kim Pugh
	Jeff Tayman
	Bill Tuomi
San Diego Regional Water Quality Control Board	
	Greg Peters
South Coast Air Quality Management District	
	Brian Ferris
City of Poway	
Planning Services	John Bridges
Safety Services	William Toon
Community Services	Lee Lewis

Poway Unified School District	Stephanie Austin
Miramar Landfill	Dave Grossman
City of San Diego	
Planning	Keith Rogers
	Diana Dugan
	Mike Stang
City of Santee	George Urman
Planning and Community Development	Doug Williford
County of San Diego	
Planning	Ron May
Library	Ernstlee Henshaw
Public Works	R.J. Massman
Palomar Observatory	Robert Brucato
Pomerado Hospital	Shirley Watts
Pacific Bell	Rick Hill
San Diego Gas and Electric	John Dawsey
	Donna McGuire
	Jay Sheppard
GEOCON, Inc.	Mike Chapin
Cox Cable San Diego	Bruce W. Winter
Buehler Property Owners Association	Neville Bothwell
Santa Isabel Indian Reservation	Erwin Osuna
Rincon Indian Reservation	Antoinette LaChappa

11.0 REFERENCES

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Smith, Brian F. Archaeological Study for Buehler Planning Area, November 1982.

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12.0 RESPONSE TO COMMENTS RECEIVED DURING PUBLIC REVIEW

Introduction

A written response has been prepared for each comment received during the review period for the South Poway Planned Community Development Plan Draft EIR, as required by Section 15088 of the CEQA Guidelines. This Response to Comments contains a list of the agencies and organizations which commented on the draft EIR, a copy of the original letters from those who commented, and responses to each specific comment within the correspondence.

List of Commenting Agencies and Organizations

LETTER NO.	DATE RECEIVED	FROM
1	5-8-85	San Diego County Archaeological Society, Inc.
2	5-16-85	Poway Unified School District
3	5-21-85	City of San Diego
4	5-24-85	San Diego County Archaeological Society, Inc.
5	5-28-85	Safino, Butcher, & Ormonde, Inc.
6	5-30-85	Department of Fish and Game
7	6-3-85	State Department of Conservation
8	5-30-85	State Office of Planning and Research
9	6-10-85	California Air Resources Board

COMMENTS

San Diego County Archaeological Society, Inc.

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

May 6, 1985

To: Mr. John Bridges
City of Poway
P. O. Box 785
Poway, California 92064

Subject: Draft Environmental Impact Report
South Poway Planned Community Development Plan

Dear Mr. Bridges:

Thank you for the copy of the subject DEIR. I have reviewed it on behalf of this committee of the San Diego County Archaeological Society.

The cultural resources section of the DEIR includes pages 4-39 to 4-45, plus a technical report as Appendix F. The latter has not been provided to SDCAS, thus limiting our ability to comment on the adequacy of the DEIR. However, based on what is provided, we have concerns about the approach taken. Specifically, the last sentence on page 4-45, in the mitigation section, leaves us confused as to whether the provisions of the Dedden Act, as Section 21083.2 of CEQA, has been waived or not. The reference to "funding responsibilities" seems to imply that 21083.2 has not been waived, yet the rest of the mitigation section indicates that a substantial amount of testing is still required to determine mitigation requirements. Since various of the requirements of the Deddeh Act have not been complied with, we presume that it has been waived.

1-1

1-2

Pending receipt of a copy of Appendix F and clarification of the questions related to CEQA Section 21083.2, we are unable to judge the treatment of cultural resources to be adequate. To facilitate your understanding the intricacies of 21083.2, we are enclosing a copy of two articles from the January 1984 Society for California Archaeology Newsletter. The author of the first article, Mr. Ron May, may be reached at the County of San Diego's Department of Planning and Land Use, at 565-5627. We urge you to contact him to discuss any questions you may have regarding current standards and practices in this area.

Sincerely,

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

cc: SDCAS President w/o encl
file w/o encl

BOARD OF EDUCATION
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DR. ROBERT L. REEVES
SUPERINTENDENT OF SCHOOLS

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(619) 748-0010 – 278-5880

FACILITIES PLANNING
Stephanie J. Austin, Coordinator

REF: 75-85

May 15, 1985

Mr. John Bridges
City of Poway
Planning Department
P.O. Box 789
Poway, CA 92064

RE: SOUTH POWAY PLANNED COMMUNITY DRAFT ENVIRONMENTAL IMPACT REPORT

Dear John:

I have reviewed Section 4.12.6-Schools and am in general agreement with the content with the exception that the author, Mr. Holm, seems to indicate that the use of developers' fees is for educating students (teachers & staff) as well as for facilities. It is a popular misunderstanding. Developers' fees are restricted by law to providing school housing for students generated from new projects. The draft report section on schools could be corrected to reflect the accurate use of developers' fees with the following:

1. P. 4-104, Line 7 in 1st paragraph---read "educational facilities" rather than education.
2. P. 4-105, Line 2 in 3rd paragraph---(#1 Mitigation Measures); delete, altogether "services and" so that it simply reads, "educational facilities."

2-1

With the changes recommended, we would be in agreement with the content of the report.

Thank you for the opportunity to review the report. It is helpful to our planning process to be apprised of development projects in the District.

Sincerely,

Stephanie J. Austin
Coordinator
Facilities Planning

cc: Mr. Tom Holm, AICP
Phillips Brandt Reddick
18012 Sky Park Circle
Irvine, CA 92714

THE CITY OF
SAN DIEGO
CITY ADMINISTRATION BUILDING • 202 C STREET • SAN DIEGO, CALIF. 92101

ENVIRONMENTAL
QUALITY DIVISION
PLANNING
DEPARTMENT
236-5775

May 20, 1985

RECEIVED
MAY 21 1985
CITY OF POWAY
PLANNING DEPT.

Mr. Barry K. Hogan
City of Poway
Planning Services Department
P.O. Box 789
Poway, California 92064

Dear Mr. Hogan:

SUBJECT: SOUTH POWAY PLANNED COMMUNITY COMMERCIAL DRAFT ENVIRONMENTAL IMPACT REPORT

The Planning and Engineering and Development departments of the City of San Diego have reviewed the draft EIR for the South Poway Planned Community and have the following comments.

Traffic Circulation

1. There are two projects presently being processed in the City of San Diego which should be analyzed in the EIR for cumulative impacts. These projects are the amendments to the Miramar Ranch North Community Plan and the Scripps Miramar Ranch Community Plan Amendment and Annexation. The traffic forecast performed by SANDAG did not include either of these projects because they were not known projects at the time SANDAG performed its forecast. 3-1

2. Community Roadway Circulation. The traffic section of the draft EIR deals primarily with a number of regional transportation alternatives. The analysis does not focus on the issue of impacts to the existing or proposed circulation systems within the adjacent communities of Scripps Ranch and Miramar Ranch North. The report should specifically address those impacts on Pomerado Road, southward to Interstate 15 (I-15), that would occur if the South Poway Arterial is not extended westward to I-15. Off-site improvements necessary to mitigate these impacts should also be addressed. Other roadways, such as Spring Canyon Road, Cypress 3-2

Canyon Road, and Poway Road could also be impacted and should, therefore, be analyzed. 3-2

3. Regional Circulation. The EIR should analyze the impact of this project on the I-15 interchanges of Poway Road, Mercy Road, Camino del Norte, Mira Mesa Boulevard, and Pomerado Road. Of particular concern is the I-15/Mercy Road Interchange, which if the South Poway Arterial is extended westward, would experience high traffic volumes associated with the ultimate development of Miramar Ranch North, the proposed Scripps Miramar Ranch Community Plan Amendment area, and the South Poway Planned Community, as well as through-traffic from Route 125. 3-3

4. Transportation Facilities Phasing Plan. In order to avoid excessive traffic volumes on existing surface streets, particularly Pomerado Road, the proposed development should only proceed as adequate transportation facilities become available to provide access to and from the proposed community. A Transportation Facilities Phasing Plan should, therefore, be incorporated into the planned community text. 3-4

5. Page 4-61: The roadway capacities in Table 12 are more properly termed "approximate maximum ADT", as the City street design standards, Council Policy 600-4, Appendix 1" identifies. Appropriate maximum ADT are generally level of service "C" volumes, which are used for designing street facilities, and in no manner represent the "capacity" for the street facility. In addition, the approximate maximum ADT used by the City is different for a couple of classifications. The most important difference is in the primary classification (termed "primary arterial" in the City of San Diego), where a 50,000 VPT (ADT) is used by the City of San Diego where the six lane facility is built to primary arterial standards and there is full control of access from abutting property. This EIR uses only 45,00D. The City uses 40,000 if it is a six-lane major street with major street design standards and direct driveway access permitted. 3-5

6. Page 4-65 to 4-69 (Tables 13 through 17) - There are a number of errors in the assumed approximate maximum ADT for streets in the City of San Diego in these tables. We recommend the following changes, based upon current adopted plans of the City of San Diego:

   - Mira Mesa Boulevard, east of Interstate 15 is a six-lane major street, with an approximate maximum ADT of 40,D00.
   - Mercy Road east of Interstate 15 is a six-lane primary arterial, with an approximate maximum ADT of 50,000.
   - Poway Road, immediately east of Interstate 15 is a six-lane primary arterial, with an approximate maximum ADT of 50,000. East of Sabre Springs Parkway, it is a six-lane major street (40,00D ADT).

3-6

- Route 56, east of Interstate 15 is a "six-lane expressway" to its first north-south intersection (Sabre Springs Parkway), and a six-lane primary arterial from Sabre Springs Parkway east to the City limits with Poway. The approximate maximum ADT for a six-lane expressway is presently undefined in City Street Design Standards, but is between 6D,000 and 70,000.

- Camino del North (SA-680) east of Interstate 15 is also a proposed six-lane expressway (see Route 56 above).

- Interstate 15 is a unique freeway facility, with between 8 and 14 (or more) through lanes at various points. It has a reversible two lane HOV facility under construction (south of Route 56), which is proposed in the RTP to be extended north to Escondido (at a later date). The approximate maximum ADT of this facility varies, and should be obtained from CALTRANS because of its unique nature. In particular, the reversible HOV lanes' approximate maximum ADT could be substantial.

3-6

7. Page 4-71, Section 4.9.3. (Mitigation Measures), Number 2, states that "other appropriate circulation elements" will need to be amended to provide for Alternative 8. This would include amending the City's General Plan and the Miramar Ranch North Community Plan, and the Scripps Miramar Ranch Community Plan. The responsibility for preparing these amendments should be identified. It is possible that this "mitigation" would create other potentially significant impacts (e.g. land use, visual, landform) that should be addressed in this EIR.

3-7

8. Page 4-73, Number 10 recommends that "the project should contribute toward future off-site improvements in proportion with its anticipated use of impacted facilities. Percent-of-total traffic volume calculations (Appendix G, Tables 3 through 7), may be utilized as a basis for estimating contributions." We concur, and request that this project be so conditioned by the City of Poway.

3-8

9. The EIR should reflect the fact that an alternative for 125 has not yet been resolved between the City of San Diego and the City of Poway. Alternatives 8 and 11 are presently under active consideration. The EIR should address the impact of at least these two alternatives.

3-9

Water Quality

Page 4-24-14-27: The City of San Diego is concerned about the potential indirect impacts of the proposed development on Los Penasquitos Lagoon. Los Penasquitos Canyon and Los Penasquitos Lagoon are part of a major open space system in the City of San Diego. The recommended mitigation measures identified on page 4-26 should be required of subsequent development proposals. The mitigation, as currently presented, does not provide the City of San Diego assurance that these measures would ever be implemented. Also,specific guidelines regarding revegetation of slopes and maintenance

3-10

of riparian areas should be identified in the EIR for incorporation into future projects. 3-10

Aesthetics

The visual analysis in Section 4.13 is primarily limited to an analysis of views from Poway Road. It should be noted, however, that the property located within the City of San Diego, to the south and southwest of the South Poway Planned Community could be developed in the future, and would have visual access to the project site. In order to avoid significant changes to the skyline, it is recommended that development standards related to building height, building color, and site coverage be included in the planned community text as mitigation for potential visual impacts. 3-11

Cumulative Effects (Section 8.2)

As stated in our first comment, there are two projects presently being processed by The City of San Diego which should be included in the analysis of Cumulative Impacts in the EIR. 3-12

Thank you for the opportunity to review the draft EIR. If you have any questions, please contact Ellen Mosley at 236-6773.

Sincerely,

David A Potter

for Diana L. Dugan
Deputy Deputy

EM:DD:sml

cc: Allen M. Jones
William Schempers, Jr.
Vicki Touchstone
Debbie Collins

San Diego County Archaeological Society, Inc.

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

May 22, 1985

To: Mr. John Bridges
Senior Planner
City of Poway
P. O. Box 785
Poway, California 92064

Subject: Draft Environmental Impact Report
South Poway Planned Community Development Plan

Dear Mr. Bridges:

Thank you for the copy of the technical appendices for the subject DEIR, which you recently sent to SDCAS in response to my letter of May 6th. With this additional information in hand, I have the following comments to offer, in addition to those in my earlier letter:

1. Page 16 of Appendix F is a map showing the locations of the sites which are discussed in the report as being in the plan area. In order to avoid the publicizing of archaeological site locations, the City should remove such maps from environmental documents and only provide them to responsible individuals and groups which need them for review purposes. Site record forms present the same risk. 4-1

2. Page 19 of Appendix F discusses survey methods, but without clearly stating what survey spacing was utilized and what areas were surveyed. The description of the survey procedure, with two persons on the ridge tops and two in the bottom of the drainages, sounds potentially inadequate. Concern is heightened by the wording of the December 12, 1984, SRS letter included in Appendix F, since it indicates that it was necessary to go back again to survey 364 acres which "had not been inspected previously by the Native American Archaeological Assistants", Antoinette LaChappa and Erwin Osuna. But page 19 states that LaChappa and Osuna were part of the original survey crew, which covered "all but the steepest slopes". Beeler Creek, where the isolate SRS-700-3 was recorded, certainly is not one of the steep slopes. Furthermore, page 19 indicates that the survey methods were subject to "budgeted time constraints" which may have influenced the quality of the survey work. CEQA makes no provision for reduced standards because someone may have put themselves in a tight financial situation. 4-2

3. Pages 17 and 18 of Appendix F discuss the results of the records search without indicating which sites fall within the planning area. We presume that the three discussed are the only ones, but this needs to be confirmed. Also needed is an identification of recorded sites which are close to the project boundaries, to permit evaluation of secondary or indirect impacts. 4-3

San Diego County Archaeological Society, Inc.

To: Mr. John Bridges, Senior Planner, City of Poway
Subject: South Poway Planned Community Development Plan DEIR
Date: May 22, 1985

4. Page 21 of Appendix F indicates that site records were submitted to San Diego State University (misnamed as California State University at San Diego on that page). Local practice is to also record all sites at the San Diego Museum of Man. 4-4

5. The December 12th SRS letter states that SRS-700-3, recorded as an isolate, was found in an area of "extensive excavations, manifested by large backdirt piles". This suggests that this area was pothunted, although the report does not indicate the possible cause for the excavations. Given this, it seems very strange that test units are not being called for in this area, and that SRS-700-3 is being recorded as an isolate. Extensive pothunting certainly suggests that the pothunters found something, and the project archaeologists should investigate the vicinity to ascertain the nature of the site and to record it accordingly. 4-5

6. Also related to this "isolate", the appendix, in the December 12th letter, states that "it is unlikely that the handstone was discovered at the location of its use". This suggests movement within the site. But the DEIR, on page 4-41, states "The disturbed nature of this location suggests that the handstone did not originate here." This suggests transport from outside the site. The DEIR and appendix should be brought into conformity. Presumably, the appendix has the correct wording. 4-6

7. The DEIR fails to address indirect impacts, as required by CEQA. Such impacts can result from extension of utilities and roads, from construction activities extending beyond the project boundaries, soil import/export, local population increase resulting in increased site visitation and pothunting, etc. Many of these impacts are mitigable. 4-7

SDCAS appreciates the opportunity to participate in the environmental review process of the City of Poway, and looks forward to continued mutual cooperation to protect cultural resources in the City of Poway.

Sincerely,

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

cc: SRS, Inc.
SDCAS President
file

SAFINO,
PUTCHER &
ORMONDE,
INC.

Planning
Design
Consultation

May 23, 1985
33540.00

John Bridges
City of Poway
Planning Services Department
13202 Poway Road
Poway, CA 92064

SUBJECT: South Poway Planned Community Draft EIR

Dear John:

As representatives of the landowners of the 400-acre county "island" adjacent to the South Poway Planned Community we feel compelled to respond to your EIR on the proposed project. Our comments have as much to do with the planning and timing of the project itself, as with the adequacy of the EIR; nonetheless we wanted to use this opportunity to voice some concerns.

First of all, we were disappointed to discover that the EIR made no mention of our proposed plan amendment, which has been in process since summer of 1984. Since copies of our project plans have been made available to both you and the project planner at PRC (Rikki Alberson) since last fall, you are of course aware of both the grading and land use proposals for the site. While it is true that our client's property is still a county island, it has been planned for development in the City of San Diego since 1980, when it was shown as a near term plan amendment in the Miramar Ranch North Community Plan. Since then, it has become more sensible to process our project as part of the Scripps Miramar Ranch plan. It is important that the plans for our property be recognized in your EIR, as many of your transportation proposals affect not only our area but a wider community. 5-1

Our second concern is the apparent failure of the South Poway plans to include a conceptual grading study, as we have done for our plans. To suggest land uses and major regional transportation linkages in the absence of at least a preliminary engineering study seems risky, especially when all planned areas in the City of San Diego have such studies. If such studies are available, they have not been provided to us, the City of San Diego, or the Scripps Ranch Planning Committee, and have not been addressed in the EIR. 5-2

Finally, we cannot at this point support your project's proposal to use our property for a prime arterial connection to Interstate 15, in the absense of a phasing and financing plan. Although we were delighted to read on page 4-49 that "Implementation of the proposed project would create (a regionally needed east-west) connecting link, the South Poway Arterial between Interstate 15 and State Route 67", we suspect that the developers of South Poway have yet to agree to fund such a link. Unless and until they are able to propose a rational construction mechanism for off-site transporation system links necessitated primarily by their project, we do not feel an obligation to reflect their proposals on our plans. 5-3

Thank you for your consideration of our concerns in this matter.

Sincerely,

Susan K. Lay

Susan K. Lay, AICP
Planning Consultant

SKL:sds

cc: Ellen Mosley, City of San Diego
Vicky Touchstone, City of San Diego
Gus Theberge
Rikki Alberson, PRC

State of California

6

The Resources Agency

Memorandum

To : 1. Projects Coordinator
Resources Agency

2. City of Poway
P.O. Box 785
Poway, CA 92064

Date : May 28, 1985

From : Department of Fish and Game

Subject : South Poway Planned Community Development Plan, San Diego County, SCH-84053008

We have reviewed the Draft EIR for the proposed project describing the potential environmental impacts of the development of a 2,500-acre planned community that includes a mix of light industrial, residential, and commercial uses located in the southern portion of the City of Poway. We find that the document in its present form fails to provide quantitative information regarding the acreages of various habitat types and the precise project impacts upon that habitat. In addition, although the DEIR does commit to provide some level of protection to important natural resources, it does not specifically identify those measures. Given the rather general nature of the DEIR it is not possible for us to assess the extent of adverse impacts of the project nor to evaluate the adequacy of proposed mitigation measures.

The Department recommends that the following actions be taken to ensure that sufficient biological information is collected and described in the DEIR to allow for the accurate evaluation of project impacts on fish and wildlife resources:

1. A field survey designed to determine the status of the endangered least Bell's vireo within the project site should be undertaken by the project sponsor to determine if a nesting population exists and the extent of nesting use within all riparian areas. The results of the study should be provided to the Department of Fish and Game and the U.S. Fish and Wildlife Service for their review and comment. Measures to insure the continued existence of this endangered species should be incorporated into the project design prior to implementing the City's approval process. 6-1

2. A specific biological evaluation of the ponds in Sub-Area 2 should be completed and made available for review and comment as specified in No. 1 above. If the ponds contain valuable and productive riparian and aquatic habitat and/or support nesting pairs of the endangered least Bell's vireo, an action program to preserve these environments must be provided. 6-2

3. Quantification and mapping of vegetation types throughout the project area.

4. Development and written description of specific habitat protection measures to be implemented as part of the project.

5. Development and written description of specific project impacts upon wildlife habitat.

6. The development of more detailed information regarding potential erosion problems together with the mapping of planned detention basins, the bases of basin sizing and provisions for adequate maintenance of those basins.

6-3

The mitigation measures generally described on pages 4-36 through 4-38 of the DEIR should be further refined and ultimately become stipulated as conditions of approval of the project. In addition, the project sponsor should be advised that diversion of the natural flow or changes in the channel, bed, or banks of any river, stream, or lake will require notification to the Department of Fish and Game as called for in the Fish and Game Code. This notification (with fee) and the subsequent agreement must be completed prior to initiating any such changes. Notification should be made after the project is approved by the lead agency.

6-4

We invite the City and the project sponsor to contact the Long Beach office for a more detailed description of our concerns. In addition, we would be pleased to assign one of our field biologists to work with you in this planning effort. Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Fred A. Worthley Jr., Regional Manager of Region 5, at 245 W. Broadway, Suite 350, Long Beach, CA 90802-4467; telephone (213) 590-5113.

for Pete Bontadelli
Jack C. Parnell
Director

State of California

7

THE RESOURCES AGENCY OF CALIFORNIA

Memorandum

To : Dr. Gordon P. Snow
Assistant Secretary for Resources

John Bridges
City of Poway
P.O. Box 785
Poway, CA 92064

Date : MAY 15 1985

Subject: South Poway Planned Community DEIR
SCH # 84053008

From : Department of Conservation--Office of the Director

The Department of Conservation has reviewed the Draft EIR for the South Poway Planned Community Draft EIR (SCH # 84053008). The Department administers the Surface Mining and Reclamation Act (SMARA) at the state level This includes classification of significant mineral resources throughout the state, and designation by the State Mining and Geology Board of mineral areas of statewide or regional significance. We have the following comments on the Specific Plan area's mineral resources.

As noted in the DEIR, most of the Specific Plan area has been classified by the Department as containing "significant mineral deposits" (MRZ-2). Further, it has been designated by the State Mining and Geology Board as being "Regionally Significant" in terms of the site's aggregate deposits.

The DEIR does not discuss, however, the applicable state requirements triggered by these actions. SMARA Section 2762 (a) requires lead agencies to incorporate policies in their general plan which will:

> (1) Recognize mineral information classified by the State Geologist and transmitted by the Board.
> (2) Assist in the management of land use which affect areas of statewide and regional significance.
> (3) Emphasize the conservation and development of identified mineral deposits.

7-1

Also, Section 2763 (a) states:

> "Lead agency land use decisions involving areas designated as being of regional significance shall be in accordance with the lead agency's mineral resource management policies and shall also, in balancing mineral values against alternative land uses, consider the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction".

To be considered complete, the Final EIR should reconcile the proposed project and these elements of state law in its Land Use Section. Also included should be maps of the classified and designated areas. 7-

The DEIR notes that the San Diego Production/Consumption Region is forecast to need 760 million tons of aggregates in the next 50 years, but has only 430 million tons of aggregate reserves, leaving a 330 million ton deficit. The Final EIR should note that the reserve estimates are optimistic; indeed, several of the sectors included as reserves in our earlier report are now proposed for development. As this project would permanently eliminate the use of what the DEIR estimates as 317 million tons of aggregates, the Final EIR should list the loss of aggregate resources as an unavoidable adverse impact. 7-2

As a partial mitigation for the aggregate loss, should the project be approved, we recommend adoption of the "Combination Aggregate Mining Plan" (DEIR, p. 4-15). While this plan would do little to alleviate the region-wide aggregate shortfall, it would allow utilization of some of the vast resources present on the site. 7-

Both the Department of Conservation and the State Mining and Geology Board are extremely concerned over the San Diego region's projected aggregate shortfall. Therefore, please regard this letter as a formal request for you to send both the Department and the Board a copy of the Final EIR prior to its certification hearing. The address for the Mining and Geology Board is:

Deborah Herrmann, Special Representative
State Mining and Geology Board
1416 9th Street, Room 1326-2
Sacramento, CA 95814

If you have any questions on our comments, please call me at (916) 322-5873.

Dennis J. O'Bryant
Environmental Program Coordinator

cc: James Anderson, Chairman
Deborah Herrmann, Special Representative

0346C-2 (292B)

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR

GEORGE DEUKMEJIAN, Governor

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

May 30, 1985

John Bridges
City of Poway
P.O. Box 785
Poway, CA. 92064

Subject: South Poway Planned Community, SCH # 84053008

Dear Mr. Bridges:

The State Clearinghouse submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is closed and the comments of the individual agency(ies) is(are) enclosed. Also, on the enclosed Notice of Completion, the Clearinghouse has checked which agencies have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the package is not in order, please notify the State Clearinghouse immediately. Your eight digit State Clearinghouse number should be used so that we may reply promptly.

Please note that recent legislation requires that a responsible agency or other public agency shall only make substantive comments on a project which are within the area of the agency's expertise or which relate to activities which that agency must carry out or approve. (AB 2583, Ch. 1514, Stats. 1984.)

These comments are forwarded for your use in preparing your final EIR. If you need more information or clarification, we suggest you contact the commenting agency at your earliest convenience.

Please contact Glenn Stober at 916/445-0613 if you have any questions regarding the environmental review process.

Sincerely,

John B. Chanian
Chief Deputy Director
Office of Planning and Research

cc: Resources Agency

Enclosures

4/20

SCH # 84053008

1. Project Title: South Poway Planned Community

2. Lead Agency: City of Poway | 3. Contact Person: John Sridges

3a. Street Address: P.O. Box 785 | 3b. City: Poway

3c. County: San Diego | 3d. Zip: 92064 | 3e. Phone: 619/748-6600

PROJECT LOCATION 4. County: San Diego | 4a. City/Community: Poway

4b. Assessor's Parcel No. | 4c. Section | Twp. | Range

5. Cross Streets: Beeler Crk/Beeler Cyn Rd | For Rural, Nearest Community:

6. Within 2 miles: a. State Hwy # 67, 15 | b. Airports | c. Railways | d. Waterways

7. DOCUMENT TYPE

CEQA

01. NOP
02. Early Cons
03. Neg Dec
04. X Draft EIR
05. Supplement/Subsequent EIR (Prior SCH No.:)

NEPA

06. NOI
07. EA
08. Draft EIS
09. FONSI

OTHER

10. Joint Document
11. Final Document
12. Other

8. LOCAL ACTION TYPE

01. General Plan Update
02. New Element
03. General Plan Amendment
04. Master Plan
05. Annexation
06. Specific Plan
07. Community Plan
08. Redevelopment
09. Rezone
10. Land Division (Subdivision, Parcel Map, Tract Map, etc.)
11. Use Permit
12. Waste Mgmt Plan
13. Cancel Ag Preserve
14. Other

9. DEVELOPMENT TYPE

01. X Residential: Units 250 Acres
02. Office: Sq. Ft. Acres Employees
03. X Shopping/Commercial: Sq. Ft. Acres 650 Employees
04. X Industrial: Sq. Ft. Acres Employees
05. Water Facilities: MGD
06. Transportation: Type
07. Mining: Mineral
08. Power: Type Watts
09. Waste Treatment: Type
10. OCS Related
11. Other:

10. TOTAL ACRES: 2400

11. TOTAL JOBS CREATED:

12. PROJECT ISSUES DISCUSSED IN DOCUMENT

01. Aesthetic/Visual
02. Agricultural Land
03. Air Quality
04. Archaeological/Historical
05. Coastal Zone
06. Economic
07. Fire Hazard
08. Flooding/Drainage
09. X Geologic/Seismic
10. Jobs/Housing Balance
11. Minerals
12. Noise
13. X Public Services
14. Schools
15. Septic Systems
16. Sewer Capacity
17. Social
18. X Soil Erosion
19. Solid Waste
20. Toxic/Hazardous
21. X Traffic/Circulation
22. Vegetation
23. Water Quality
24. X Water Supply
25. Wetland/Riparian
26. Wildlife
27. Growth Inducing
28. Incompatible Landuse
29. Cumulative Effects
30. Other

13. FUNDING (approx.) Federal $ State $ Total $

14. PRESENT LAND USE AND ZONING:

15. PROJECT DESCRIPTION: Proposed 2,400 ac. multiple use project including principally industrial & office park uses with ancillary commercial and residential. Project is proposed to contain approx. 650-700 ac. of industrial/office park uses and approx. 250-300 residential units.

CLEARINGHOUSE CONTACT: [signature]

STATE REVIEW BEGAN: 4-15

DEPT. REVIEW TO AGENCY: 5-23

AGENCY REVIEW TO SCH: 5-28

SCH COMPLIANCE: 5-30

S/C N/C		S/C N/C	
X	RESOURCES	X	CALTRANS # 11
	[redacted]		[redacted]
X	CONSERVATION		[redacted]
X	FISH/GAME		[redacted]
	[redacted]		[redacted]
	[redacted]		[redacted] (OSHP)
	[redacted]	X	HEALTH SVCS
	[redacted]		[illegible]
	[redacted]		[illegible]
	[redacted]		PUBLIC WORKS
	[redacted]		CORRECTIONS
	COASTAL COMM		GENERAL SVCS
	ENERGY COMM		(SCHOOLS)
	[redacted] COMM		SANTA MON MTN
(late comment)	ARB		TRPA/CTRPA
	[redacted]		[illegible] CTR
	[redacted]		COASTAL CTR
X	REGION # 9		US EPA
	[redacted]		OTHER

[illegible] (10-83)

ATE OF CALIFORNIA
GEORGE DEUKMEJIAN, Governor

AIR RESOURCES BOARD
1102 Q STREET
L BOX 2815
CRAMENTO, CA 95812

Date: June 4, 1985

To: 1) John Ohanian, Director
State Clearinghouse
Office of Permit Assistance
1400-10th Street
Sacramento, CA 95814
IMS A-8

Attention: Mark Boehme

2) John Bridges
South Poway Planned Community
City of Poway
P.O. Box 785
San Diego, CA 92064

RECEIVED
JUN 05 1985
State Clearinghouse

Thru: John D. Doyle

From: James D. Boyd
Executive Officer

Subject: South Poway Planned Community Draft Environmental Impact Report, SCH No. 84053008

Thank you for the opportunity to review the draft environmental impact report (DEIR) for South Poway Planned Community. The proposed development for the 2,500 acre area consists of 28 acres of commercial/office uses, 149 acres of industrial park, 495 acres of light industry, 887 acres of residential (272 units), and 941 undesignated acreage to be used for any combination of open space, residential use, road rights-of-way, or slope. The plan also includes implementation of a key regional transportation link, the South Poway Arterial.

Traffic/Air Quality Analysis

According to the DEIR, the project is estimated to generate up to 73,160 daily vehicle trips which will result in the following emissions:

Pollutant	Emissions (tons/yr)
carbon monoxide	2,444
hydrocarbons	302
nitrogen oxides	196

2. Ridesharing/Preferential Parking

We suggest provision of on-site transportation coordinators be considered as a project requirement in order to develop a comprehensive commute alternatives program, including commute rideshare services. In addition, we suggest preferential parking for carpools and vanpools be identified as a percentage of all proposed employee parking at employment centers within the project site. 9-1

3. Non-Motorized Facilities

The DEIR (page 4-63) mentions that the City's master plan of bikeways was designed to encourage bicycling as an alternative means of transportation. We recommend that bicycle lanes be designated along major arterials in the project area and identified in the FEIR. We recommend secure bicycle storage facilities be provided at commercial and employment centers. 9-2

We would appreciate receiving a copy of the FEIR. If you have any questions regarding these comments, please contact Arthur Diamond of my staff at (916) 324-6916.

Enclosures

cc: Raymond Weeks, San Diego County APCD
Lee Holtgren, SANDAG
William Dotson, Caltrans District 11
Scott Monte, City of San Diego Paratransit Administration
Mark Boehme, SCH
Arthur Diamond, ARB

RESPONSES TO COMMENTS

1. Letter from San Diego County Archaeological Society, Inc., James W. Royle, Jr., EIR Review Committee

1-1 A copy of Appendix F (Cultural Resources Survey of the South Poway Project) has since been forwarded to the San Diego County Archaeological Society for review.

1-2 A "waiver" of the provisions of the Deddeh Act has been obtained, consistent with the provisions of the California Environmental Quality Act, Appendix K (IV.E). Funding responsibilities referred to in the mitigation measure on page 4-45 are those of the project applicant.

2. Letter from Poway Unified School District, Stephanie J. Austin, Facilities Planning

2-1 Comments are noted. The EIR is hereby revised to read:

1. "educational facilities" rather than "education," (p. 4-104, Line 7 in the first paragraph); and
2. "educational facilities" rather than "educational services and facilities" (p. 4-105, Line 2 in Mitigation Measure 1).

3. Letter from city of San Diego, Diana L. Dugan, Environmental Quality Division Planning Department

3-1 The referenced amendments were not included in the SANDAG traffic forecasts and are not yet in the public review phase of the environmental review process at the time of this writing. It is recommended that SANDAG re-run the traffic forecasts to include both the South Poway Planned Community and the most recent amendment proposals by Scripps Miramar Ranch and Miramar Ranch North. Table 35 of the EIR is updated based on recent communications with the city of San Diego to reflect the proposed amendments to these two city of San Diego communities. Table 35 (p. 8-3) is hereby updated as follows:

Project	Approved DUs	Additional Proposed DUs	Commercial/ Office Acres	Industrial/ Business Park Acres
Miramar Ranch North	3,900	(1,800)	18	145
Sabre Springs	5,100		35	63
Scripps Miramar Ranch "County Island" Amend.	6,000	(200) (1,500)	53	290
Rancho Arbolitos	975	--	0	0
Carmel Mountain Ranch	5,600	--	186	170
TOTAL	21,575	(3,500)	292	668

3-2 Impacts to the Poway/San Diego area roadways are listed in Tables 13 through 17. The tables identify projected volumes and volume-to-capacity ratios on roadway segments including 1) Pomerado Road south to I-15, 2) Mercy Road west to I-15, and 3) Mira Mesa Boulevard west to I-15; the ratios were based on Master Planned Roadway Classifications. Traffic conditions on these roads were analyzed both with and without the western extension of the South Poway Arterial, as well as with and without the South Poway Planned Community in three distinct SANDAG Route 125 Scenarios ("No Build," "Alternative 10," and "Alternative 11"). Poway Road is analyzed throughout Tables 13-17.

The Miramar Ranch North Transportation Analysis was prepared in April 1985 by Urban Systems Associates, Inc. This report addresses many of the city of San Diego's regional circulation concerns and is hereby incorporated by reference. This draft report updates Tables 13-17 in the EIR in regard to traffic and roadway sizing.

The analysis includes a regional traffic forecast which utilizes buildout assumptions of the following areas: Miramar Ranch North, Poway, Scripps Miramar Ranch (including the County Island Amendment), Mira Mesa, Sabre Springs Penasquitos East, Carmel Mountain, La Jolla Valley, and Rancho Bernardo. Buildout of the South Poway area was based on land uses designated in SANDAG's Route 125 North Location Analysis. SR 125 was assumed a full freeway, Spring Canyon Road was assumed constructed southeast to Santee, and the

South Poway Arterial was considered (SANDAG Alternative 8 and Miramar Ranch North Alternative B) as an alternative to the proposed plan. The report identifies ADTs, street classifications, capacities, volume to capacity ratios and levels of service for this and other alternatives as identified in Table 1. The roadways addressed included Pomerado Road south to I-15, Spring Canyon Road, Cypress Canyon Road, and Poway Road.

Pursuant to EIR traffic mitigation measures #8 and #10 (p. 4-72, 4-73), offsite improvements necessary to mitigate impacts by the South Poway Planned Community shall be identified in detailed, project-specific traffic studies at subsequent planning levels. In addition, the project shall contribute toward offsite improvements on a pro rata basis. The EIR proposes adoption of SANDAG Alternative 8, including a westerly extension of the South Poway Arterial, as a basic mitigation measure for impacts to the surrounding circulation system.

3-3 Project ADT impacts on easterly approaches to each of these interchanges are identified in EIR Tables 13-17. South Poway Planned Community volumes are analyzed under two different circulation alternatives (8 and 12) in which the South Poway Arterial is extended west to Mercy Road. These volumes should be factored into current environmental and traffic studies for Miramar Ranch North and Scripps Miramar Ranch Community Plan amendments which address the Mercy Road interchange. Comparison of the SANDAG "No Build" Aternative (Table 13) versus Alternative 8 (Table 14) projected ADTs at six key interchange approaches (within the city of San Diego just east of I-15) indicates that volumes are reduced at four of the six interchanges under Alternative 8 (with South Poway Planned Community) relative to the "No Build" Alternative.

3-4 Improvements to two critical intersections (Poway/Pomerado and Poway/Community Road) are identified as needed in early phases of the project. Project-level traffic studies addressing phasing of specific improvements will be required by the city of Poway.

Table 1

COMPARISON OF ALTERNATIVES

MIRAMAR RANCH NORTH

LOCATION	EXISTING PLAN ST. CLASS	Miramar Ranch North Proposed Plan ADT	STREET CLASS	CAP.	V/C	LOS	SANDAG Alternative 8 ADT	STREET CLASS	CAP.	V/C	LOS	SANDAG Alternative 11 ADT	STREET CLASS	CAP.	V/C	LOS
Spring Cyn east of I-15	-	40	6LM	40	1.0	C	55	6LP	50	1.10	D	45	6LP	50	0.90	C
Spring Cyn west of Cypress Cyn	1B/4LM	25	4LM	25	1.0	C	40	6LM	40	1.0	C	28	4LP	30	0.93	C
Spring Cyn west of Scripps Ranch B.	-	-	-	-	-	-	8	4LC	10	0.80	C	16	4LM	20	0.80	B
Spring Cyn east of Scripps Ranch B.	10/4LM	10	4LC	10	1.0	C	-	-	-	-	-	12	4LM	20	0.60	B
Spring Cyn west of Semillion	-	10	4LC	10	1.0	C	-	-	-	-	-	12	4LM	20	0.60	B
Spring Cyn east of Semillion	-	5	2LC	5	1.0	C	7	4LC	10	0.70	B	14	4LM	20	0.70	B
Spring Cyn west of Pomerado	-	7	4LC	10	0.70	B	-	-	-	-	-	10	4LC	10	1.0	C
Cypress Cyn east of Spring Cyn.	12/4LM	14	4LM	20	0.70	B	20	4LM	20	1.0	C	14	4LM	20	0.70	B
Cypress Canyon	7/4LM	7	4LC	10	0.70	B	7	4LC	10	0.70	B	7	4LC	10	0.70	B
Cypress Canyon	4/2LC	3	2LC	5	0.60	B	-	-	-	-	-	3	2LC	5	0.60	B
Cypress Cyn north of Spring Cyn or west of Pomerado	-	-	-	-	-	-	25	4LM	25	1.0	C	-	-	-	-	-
Scripps Ranch B. s/of Mira Mesa B.	-	20	4LM	20	1.0	C	20	4LM	20	1.0	C	20	4LM	20	1.0	C
Scripps Ranch B. n/of Mira Mesa B.	-	22	4LM	25	0.88	C	20	4LM	20	1.0	C	25	4LM	25	1.0	C
Scripps Ranch B. n/of Lake	8/4LC	14	4LM	20	0.70	B	12	4LM	20	0.60	B	-	-	-	-	-
Scripps Ranch B. s/of Spring Cyn	8/4LC	10	4LC	10	1.0	C	10	4LC	10	1.0	C	12	4LM	20	0.60	C
Semillion	-	10	4LC	10	1.0	C	5	2LC	5	1.0	C	4	2LC	5	0.80	B
	-	3	2LC	5	0.60	B	3	2LC	5	0.60	B	3	2LC	5	0.60	B
Mira Mesa Blvd. east of I-15	-	35	6LM	40	0.88	C	30	4LP	30	1.0	C	35	6LM	40	0.88	C
Pomerado south of Semillion	-	22	4LM	25	0.88	C	22	4LM	25	0.88	C	25	4LM	25	1.0	C
Pomerado north of Semillion	-	16	4LM	20	0.80	B	16	4LM	20	0.80	B	18	4LM	20	0.90	C
Pomerado north of Spring Cyn	-	25	4LM	25	1.0	C	18	4LM	20	0.90	C	25	4LM	25	1.0	C
Pomerado south of Beeler	-	25	4LM	25	1.0	C	18	4LM	20	0.90	C	25	4LM	25	1.0	C
Pomerado south of Poway Rd.	-	22	4LM	25	0.88	C	22	4LM	25	0.88	C	26	4LP	30	0.93	C
Pomerado north of Poway Rd.	-	25	4LM	25	1.0	C	26	4LP	30	0.93	C	28	4LP	30	0.93	C
Beeler Cyn Rd. (south of Poway Arterial)	-	25	4LM	25	1.0	C	40	6LM	40	1.0	C	30	4LP	30	1.0	C
Poway Rd. east of I-15	-	65	6LP	50	1.30	E	65	6LP	50	1.3	E	75	6LP	50	1.5	F
Poway Rd. at City Limit	-	55	6LP	50	1.10	D	55	6LP	50	1.10	D	65	6LP	50	1.30	E
Poway Rd. west of Pomerado	-	50	6LP	50	1.0	C	55	6LP	50	1.10	D	65	6LP	50	1.30	E
Poway Rd. east of Pomerado	-	35	6LM	40	0.88	C	45	6LP	50	0.90	C	50	6LP	50	1.0	C
I-15 south of Poway Rd.	-	220	-	-	-	-	220	-	-	-	-	220	-	-	-	-
I-15 south of Spring Cyn.	-	220	-	-	-	-	220	-	-	-	-	220	-	-	-	-
I-15 south of Mira Mesa Blvd.	-	200	-	-	-	-	220	-	-	-	-	220	-	-	-	-

3-5 Terminology for roadway capacities utilized by the city of San Diego is noted. However, the intent of Table 12 in providing a relative measure of roadway capacity is not significantly changed whether "daily design capacity" or "approximate maximum ADT" is used. The range in approximate maximum ADT used by the city of San Diego for six-lane divided facilities (depending on the degree of access control from abutting properties) is also noted. The figure for a six-lane divided facility cited in the EIR falls midway within this range, and its use does not significantly affect traffic forecasts in the EIR.

3-6 Revised calculations based on city of San Diego adopted plans for these streets are presented in Table 1. In each instance, revised capacities (or approximate maximum ADTs) exceed those previously assumed in Tables 13 through 17, thereby reducing projected volume-to-capacity ratios at these locations. As noted in the comment, various measures to increase capacity significantly on Interstate 15 are being implemented and will ultimately reduce volume-to-capacity ratios identified in Table 13-17.

3-7 The Miramar Ranch North and Scripps Miramar Ranch Community Plan amendments currently in process should specifically consider circulation systems which are compatible with Alternative 8.

The city of Poway will cooperate with the city of San Diego in the processing of any circulation element amendments needed to respond to regional traffic demands, however ultimate responsibility for city of San Diego General Plan amendments rests with the city of San Diego.

The potential for landform alteration, visual and land use impacts from an extension of the South Poway Arterial through the unincorporated island and Miramar Ranch North is noted in the EIR (p. 4-70, #5).

3-8 Comment so noted.

Table 2
VOLUME TO CAPACITY RATIOS
Based on City of San Diego Standards

	NO BUILD		ALTERNATIVE 8		ALTERNATIVE 10		ALTERNATIVE 11		ALTERNATI
	W/So. Poway P.C.	W/O So. Poway P.C.	W/So. Poway P.C.	W/O So. Poway P.C.	W/So. Poway P.C.	W/O So. Poway P.C.	W/So. Poway P.C.	W/O So. Poway P.C.	W/So. Poway P.C
	.85	.85	.77	.78	.84	.84	.85	.84	.77
	.79	.78	1.00	.81	.79	.78	.80	.79	.98
	1.38	1.28	1.19	1.15	1.26	1.15	.34	1.22	1.23
	.86	.83	.81	.80	.88	.87	.83	.81	.84
	1.10	.99	1.23	1.14	1.32	1.22	1.24	1.14	1.10

nate maximum AOT undefined in city of San Diego Street Design Standards;
ADT utilized to calculate ratios.

3-9 Project traffic volume impacts on regional and local facilities under both Alternatives 8 and 11 are identified in the EIR, Tables 14 and 16. At this time, the selection of a SR 125 Alternative has not been resolved between the cities of Poway and San Diego. Selection of one of these regional alternatives by the cities of Poway and San Diego will facilitate further analysis of local and regional traffic circulation effects.

In addition, the Miramar Ranch North Transportation Analysis provides this information. Table 1 in response 3-2 tabulates cumulative regional traffic and circulation impacts for SANDAG Alternatives 8 and 11.

3-10 Short- and long-term water quality control measures identified in Section 4.3.3 of the EIR will be required of subsequent development proposals. Specific guidelines regarding revegetation of slopes are provided in the aforementioned Development Plan and Development Standards. In addition to these measures, riparian areas shall be protected with drainage controls as identified in mitigation measure 5, Section 4.4.3 of BIOLOGICAL RESOURCES. Subsequent plan review by the city of Poway shall ensure compliance with these mitigation measures.

3-11 Comment noted. Standards related to materials, height, color, site coverage, etc. are provided in Volume 2, Development Standards.

3-12 See response 3-1.

4. Letter from San Diego County Archaeological Society, Inc., James W. Royle, Jr., EIR Review Committee

4-1 Comment noted. In order to avoid publicizing archaeological site locations, maps and site record forms were included only in the EIR appendices. The appendices are available to responsible agencies, individuals or groups for review purposes.

4-2 The entire South Poway Planned Community site was surveyed on foot excluding all but the steepest slopes in excess of 30 percent. Since the Ipai assistants were unable to attend the entire initial survey, some portions of the site were re-surveyed with the Ipai assistants in attendance. A transect survey of the entire property was considered impractical primarily as a result of steep slopes and the project size. The SRS surveys required eleven days in September and December 1984. In addition, the SRS surveys were preceded by the first property survey mentioned on page 4-39 in the EIR.

4-3 The three sites discussed in the survey are the only previously recorded sites located within or adjacent to the project boundaries. These are the only sites considered to have any significant likelihood of indirect impacts. Potential indirect impacts to these sites are identified on page 4-42 of the EIR.

The location of recorded sites within the project vicinity are available from Archaeological Site Records. As noted on page 17, most of the nearby sites are clustered along Poway Creek and other water sources.

4-4 Comment noted. The new sites will be recorded at the San Diego Museum of Man.

4-5 The site of the isolate, SRS-700-3, is in an area disturbed by mechanical excavations for construction purposes rather than pothunting.

4-6 Both statements are intended to suggest that the isolate was transported from nearby.

4-7 Comment noted. Specific indirect impacts and appropriate mitigation measures shall be identified at subsequent planning levels, since the precise location of roadways, utilities and such are unknown at this stage. The following impact and corresponding mitigation measure are hereby added to the EIR:

Offsite construction activity (eg., street and utility extensions) could result in indirect impacts to any archaeological resources which may be located in surrounding areas (page 4-43, new paragraph 5).

9. Additional literature review or surveys for potential indirect archaeological impacts resulting from offsite construction activity (eg., street and utility extensions, offsite grading) should be required in conjunction with subsequent detailed plans (page 4-45, new measure #9).

5. Letter from Safino, Butcher, & Ormonde, Inc., Susan K. Lay, AICP, Planning Consultant

5-1 The "county island" amendment to the Scripps Miramar Ranch Community Plan is reflected in responses 3-1 to 3-9 to the city of San Diego.

5-2 Volumes 1 and 2, Development Plan and Development Standards, provide landform and grading concepts and grading standards for the project. Detailed grading and engineering studies will be prepared at subsequent levels of development.

5-3 The Overall Implementation Plan contained in the Development Plan provides a general phasing plan of public improvements (including the South Poway Arterial) and financing mechanisms available for these improvements. A development agreement (or other mechanism) between the city of Poway and the project applicant will ensure proper and timely construction of onsite and offsite improvements.

6. Letter from California Department of Fish and Game, Jack C. Parnell

6-1 Least Bell's vireo is now a candidate for federal listing as an endangered species and is generally restricted to willow riparian habitats (more specifically, with weedy brush understory). Two such localities on the project site are found along Beeler Creek -- one is very near the Padre Transit mining operations. All

riparian willow areas on the site were surveyed for vegetation in September 1984 by the PBR Senior Biologist. No sightings were made or indications observed of least Bell's vireo presence. This is also true of the original November 1982 biological survey which emphasized riparian areas and Beeler Canyon. The only willow riparian areas onsite with potentially suitable habitat for least Bell's vireo are restricted to the Beeler Creek area, which will be retained in open space. A survey for the presence of least Bell's vireo could occur, however, in conjunction with the recommended spring biological survey, (mitigation measure #10).

6-2 These livestock-watering ponds are highly disturbed and may even be seasonally dry. The riparian brush associated with the ponds do not provide suitable habitat for the least Bell's vireo. Loss of these ponds is considered an unavoidable adverse impact.

6-3 Pages 4-28 through 4-32 of the EIR quantify the vegetation types by percentage of total site area. The approximate percentages and acreages of vegetation types are as follows:

Coastal sage scrub:	60-65%	(1,500-1,550 acres)
Grassland:	10-15%	(250-375 acres)
Chaparral		
Mixed:	9%	(225 acres)
Chamise:	4%	(100 acres)
Riparian:	4-5%	(100-125 acres)
Disturbed:	5%	(125 acres)

As indicated in the EIR, approximately 50% of the total vegetation onsite is anticipated to be impacted, primarily in the central highlands. This impacted area encompasses mostly coastal sage scrub, some mixed chaparral, isolated grassland pockets, and the small ponds featuring riparian brush growth. Exhibit 13 of the EIR illustrates biologic resources.

Specific impacts to wildlife habitat are identified on pages 4-33 through 4-36. Effects on key resources are described on pages

recovered during grading. However, most of the aggregate onsite will be committed to development. This is considered an unavoidable adverse impact of the project.

7-3 Comment so noted.

8. Letter from California Office of Planning and Research, John B. Ohanian

Comment noted.

9. Letter from California Air Resources Board, James D. Boyd

9-1 Comment noted. The following is hereby added to the EIR.

Onsite transit coordinators should be required by the city in order to develop and implement carpooling, vanpooling programs within the employment/commercial area of the South Poway Planned Community. Ten percent of the onsite employment area parking spaces should be preferential spaces designated for carpools/ vanpools (Mitigation Measure #8, page 4-82).

4-35 and 4-36. Mitigation measure 1 on page 4-36 of the EIR indicates that specific provisions for preservation and management of open space, including significant woodland resource areas and grassland slopes, shall be contained in the Development Plan. Mitigation measure 9 provides for preservation and management of riparian areas within the rural residential areas. Compliance with these mitigations shall be accomplished by city review at subsequent planning levels.

Specific locations and limits of proposed detention basins have not yet been identified. Development of these facilities will result in the loss of additional vegetation and habitat. The bases of basin sizing is addressed in the EIR Volume 4 Appendix D Hydrological Analysis, a copy of which is being forwarded to the Department of Fish and Game. Maintenance of such facilities will become the responsibility of the Master Property Dwner's Association.

6-4 Comment so noted.

7. Letter from Department of Conservation - Office of the Director, Dennis J. O'Bryant

7-1 Comment so noted. The city of Poway Comprehensive Plan policies require that the sand and gravel resources in the South Poway area be evaluated prior to extensive development and that an assessment of the value of the deposits be made prior to approval of development. An Analysis of Aggregate Resources for the project area was performed by PRC Engineering. The EIR in Section 4.2.2, assesses and evaluates the aggregate resources onsite, the regional significance, and alternatives for recovering, in part, these resources as identified in this analysis. Designated Mineral Resource Zones are mapped according to classification on Exhibit 11 of the EIR and also in Appendix C of the technical appendices.

7-2 Comment noted. The Development Plan provides for expansion of the existing mining operation and for onsite utilization of aggregate

APPENDICES

Volume 4 - Appendices (Bound under Separate Cover)

A. Notice of Preparation
B. Correspondence
C. Analysis of Aggregate Resources Buehler Planning Area
D. Hydrological Analyses Buehler Planning Area
E. PBR Biological Survey
F. Cultural Resources Survey of the South Poway Project
G. South Poway Planned Community Traffic Study
H. Air Quality Calculations and Assumptions
I. Noise Analysis
J. Police and Fire Services Buehler Planning Area
K. Water and Sewerage Facilities for Buehler Planning Area
L. Visual Analysis Buehler Planning Area